☒ **Synthetic Minor Determination and/or** ☐ **Netting Determination**

Permit To Install ~~**16-02**~~**110**

A. Facility Description

Norton Energy Storage, LLC is proposing to build an electric generating station. Each unit set will consist of the combination of one combined gas-fired combustion turbine and one air turbine modified for the desired service; one electric generator; multiple electric motor-driven compressors; one recuperator (air to air heat exchanger); and the associated controls, switching, substations, transformers and connections typical of a generating facility.

B. Facility Emissions

The emissions of Hazardous Air Pollutants (HAPs), as defined in Section 112(b) of the Clean Air Act, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) based upon potential to emit at this facility are over the threshold level for individual HAPs that would tigger federal 112(g) and OAC rule 3745-31-28 requirments, but not for combined HAPs.

C. Conclusion

The emissions of Hazardous Air Pollutants (HAPs), as defined in Section 112(b) of the Clean Air Act, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility combined, shall not exceed 9.86 tons per year for an individual HAP(formaldehyde) and 25 tons per year for any combination of HAPs*, per rolling 12 month period.

Therefore, with the above restrictions and associated record keeping and reporting requirements listed in this permit, this facility will not trigger either federal 112(g) or OAC rule 3745-31-28.

STAFF DRAFT ACTION DETERMINATION
STAFF DETERMINATION FOR THE APPLICATION
TO CONSTRUCT UNDER THE
PREVENTION OF SIGNIFICANT DETERIORATION (PSD)
FOR NORTON ENERGY STORAGE, LLC'S
AIR PERMIT TO INSTALL NO. 16-02110 FOR
NINE 300 MEGAWATTS NATURAL GAS FIRED
ALSTOM ET-11NM TURBINES TO BE LOCATED IN
CITY OF NORTON, SUMMIT, COUNTY, OHIO

October 25, 2001

Ohio Environmental Protection Agency
Division of Air Pollution Control
122 South Front Street
Columbus, Ohio 43215

Facility Description

Norton Energy Storage, LLC is proposing to build an electric generating station. The facility will be located at the site of the limestone mine formerly operated by PPG Industries in the City of Norton, Summit County, Ohio. The electric generating capacity of the facility will be tied directly into First Energy of Ohio's electrical transmission system.

Each unit set will consist of the combination of one combined gas-fired combustion turbine and one air turbine modified for the desired service; one electric generator; multiple electric motor-driven compressors; one recuperator (air to air heat exchanger); and the associated controls, switching, substations, transformers and connections typical of a generating facility.

When operating, the facility will use off-peak electricity to drive the compressors to inject air into the underground mine formerly operated by PPG Industries. During peak periods, the pre-compressed air will be heated in recuperators by waste heat from combustion turbine exhaust and some duct firing, expanded across the combustion turbine, heated again by gas burning in the turbine combustors, and expanded across the combustion turbine. Natural gas will be the only fuel utilized by the facility.

Air Quality Designations

Under Section 107 of the Clean Air Act as of June 24, 1992, the area which contains the proposed facility was classified as attainment for all of the criteria pollutants, i.e., total suspended particulates, particulate matter less than 10 microns, sulfur dioxide, nitrogen oxides, carbon monoxide, lead, and volatile organic compounds (ozone).

New Source Review (NSR)/PSD Applicability

The Norton Energy Storage facility would be classified as a "major" stationary source because the potential emissions exceed 250 tons per year of one of the criteria pollutants (nitrogen oxide (NO_x)) threshold level in an attainment area and thus would be classified as a major stationary air source under the federal Prevention of Significant Deterioration (PSD) program.

In this case, since the facility is now classified as a "major" stationary source for PSD by the above analysis, any additional pollutants that would emit a regulated pollutant at a rate in excess of the significance levels would require the facility to perform a PSD analysis for those pollutants. Table 1 shows the potential emissions.

Table 1

Pollutant	Tons/Year #	Significant Level
Nitrogen Oxides (NO_2)	372.13	40
Sulfur Dioxide (SO_2)	48.72	40
Particulate Matter*	245.21	15
Carbon Monoxide (CO)	1768.53	100
Volatile Organic Compounds(VOC)	148.34	40
Sulfuric Acid Mist (H_2SO_4)	4.8	7

* Particulate Matter and Particulate Matter <10 are assumed to be the same.

Sulfuric acid mist (H_2SO_4) will be emitted as a PSD regulated non-criteria pollutant.

The result is that the Norton Energy Storage facility submitted a PSD analysis for the following pollutants: NOx, VOC, PM*, SO_2, and CO.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Part 63, 112(g) and Ohio Administrative Code (OAC) rule 3745-31-28 Applicability

Currently there are no standards that have been promulgated for this project. If no standard has been promulgated, then the project is evaluated based upon the amount of Hazardous Air Pollutants emitted. If over the threshold levels, then a Maximum Achievable Control Technology (MACT) determination must be submitted for review.

The Norton Energy Storage facility will be accepting HAP emission restrictions to below applicability threshold levels to avoid submitting a MACT determination.

New Source Performance Standards (NSPS) Applicability

Each of the simple cycle gas fired combustion turbines is subject to 40 CFR 60 Subpart GG.

The Stationary Gas Turbine NSPS applies to emissions for NO_x and SO_2. The emission standard for NO_x emissions applicable to the combustion turbine [from the equation in 40 CFR 60.332(a)(1)] is 0.0075 percent by volume (75 ppmv) at 15 percent oxygen on a dry basis. This standard is applicable to either fuel oil or natural gas combustion. The emission standard for SO_2 emissions applicable to the combustion turbine [from the equation in 40 CFR 60.333(b)] is 0.015 percent by volume (150 ppmv) at 15 percent oxygen on a dry basis. SO_2 emissions from combustion turbines are further limited by 40 CFR 60.333(b) which prohibits burning fuel that contains sulfur in excess of 0.8 percent by weight.

Each of the gas fired combustion turbines is augmented with supplementary natural gas fired duct burners rated at 73 megawatts (250 MMBtu/hr) are subject to 40 CFR 60 Subpart Da, "Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978".

Also, both the fuel supply heater 11.45 mmBTU/hr natural gas fired boilers and recuperator pre-heater 12.84

mmBTU/hr natural gas fired boilers are subject to 40 CFR 60 Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units".

Control Technology Review

The Norton Energy Storage facility submitted a case-by-case Best Available Control Technology (BACT) analysis for the following pollutant: NO_x, SO_2, PM* CO, and VOC. The application used a "top-down" approach to determine an appropriate level of control.

BACT Review

Control of Nitrogen Oxides

Combustion Turbines and Duct Burners

The new installation, Norton Energy Storage facility, looked at the following control technologies for nitrogen oxides:

- Diluent Injection - Water and Steam Injection;
- Combustion Controls - Lean Premix Combustion (DLN);
- Selective Catalytic Reduction - (Back end control);
- Selective Non-Catalytic Reduction (SNCR);
- Catalytic Oxidation Absorption - SCONO$_x$ - (Back end control); and ,
- Catalytic Combustion - XONON catalytic (flame less)combustion - (Front end control).

Diluent Injection - Water and Steam Injection

Water injection directly into the flame area of the combustion turbine generator combustor provides a heat sink that lowers the flame temperature and reduces thermal NOx formation. The water injection rate is typically described on a mass basis by a water-to-fuel ratio (WFR). Higher WFRs translate to greater NOx reductions, but may also increase emissions of CO and hydrocarbons, reduce combustion turbine generator combustion efficiency and increase maintenance requirements.

In order to derive maximum control system performance, the injected water must be atomized and sprayed in a configuration that provides a homogeneous mixture of water droplets and fuel in the combustor.

Thus, an optimal combustor geometry and nozzle design is very critical to the desired performance of the control system, otherwise improper mixing yields localized hot spots in the combustor that produce increase NOx emissions.

Steam Injection is essentially the same principle to reduce NOx emissions as water injection, except steam replaces water as the injected fluid.

Combustion Controls - Lean Premix Combustion (DLN)

Low NOx combustors that operate without steam or water injection are referred to as dry low-NOx combustors. The combustion chamber, or combustor, is the space inside or adjacent to the gas turbine where fuel and compressed air are burned. In conventional combustors, the fuel and air are injected into the combustor separately and mixed in some, localized zones.

In contrast, dry low-NOx combustors minimize combustion temperatures by providing a lean premixed air/fuel mixture, where air and fuel are mixed before entering the combustor. This minimizes fuel-rich pockets and

allows the excess air to act as a heat sink. The lower temperatures reduce NOx formation. However, because the mix is lean, the flame must be stabilized with a pilot flame. Dry low-NO_X combustors in natural gas service can achieve emissions in the range of 25 down to 9 ppmvd NOx (at 15 per cent oxygen) dependent on turbine manufacturer**.**

Selective Catalytic Reduction (SCR) - (Back end control)

SCR is an add-on control which utilizes the injection of ammonia (NH_3) into the exhaust gas stream, which then passes through a catalyst to convert the NO_x and NH_3 into nitrogen and water. The general chemical reactions are:

$$4NO + 4NH_3 + O_2 \rightarrow 4N_2 + 6H_2O \text{ and}$$

$$2NO_2 + 4NH_3 + O_2 \rightarrow 3N_2 + 6H_2O$$

The reactions take place on the surface of a catalyst. The function of the catalyst is to effectively lower the activation energy of the NO_x decomposition reaction. Technical factors related to this technology include the catalyst reactor design, optimum operating temperature, sulfur content of the fuel, and design of the ammonia (NH_3) injection system.

An SCR system is composed of an ammonia storage tank, ammonia forwarding pumps and controls, an injection grid (system nozzles that spray ammonia into the exhaust gas ductwork), a reactor which contains the catalyst and instrumentation, and electronic controls. An injection grid disperses NH_3 in the flue gas upstream of the catalyst, and NH_3 and NO_x are reduced to N_2 and water in the catalyst reactor. This control techniques reduces both thermal NO_x and fuel NO_x in the exhaust streams.

The optimum operating temperature for a vanadium-titanium catalyst has been shown to be in the range of 550^o to 800 ^{o}F. For combined cycle units (and for this project), the ideal temperature window occurs with the heat recovery steam generator (HRSG) or, in this case, the recuperator.

SCR has been applied to numerous combined cycle gas turbines and is therefore a feasible technology for this project.

Selective Non-Catalytic Reduction (SNCR) - (Back end control)

SNCR technology involves using ammonia or urea injection in a fashion similar to SCR technology but at a higher temperature window range of 1600^o to 2200 ^{o} F. The following chemical reaction occurs without the presents of catalyst :

$$NO_x + NH_3 + O_2 + H_2O + (H_2) \rightarrow N_2 + H_2O$$

Since the temperature range is around 1,100 ^{o} F, this technology would not be feasible for either operating in simple or combined cycle modes.

Catalytic Oxidation Absorption - SCONO$_x$ - (Back end control)

An emerging technology called SCONO$_x$, offers the promise of reducing NO_x emissions to values less than 3 ppm. EPA on July 2, 1997 indicated that SCONO$_x$ as a back end catalyst which operates without ammonia has been demonstrated in practice as Lowest Achievable Emission Rate (LAER) as part of a Non attainment Review permit analysis in California on a 23 MW combined-cycle turbine installation with NO_x emissions at 2-2.5 ppm. In December, 1999, EPA Region I issued a letter to the States covered by Region I stating that his technology is

considered technically feasible.

The $SCONO_x$ system uses an oxidation/absorption/regeneration cycle across a catalyst bed to achieve back end reductions of NO_x. Unlike SCR, the system does not require ammonia as reagent and involves parallel catalyst beds that are alternately taken off-line for regeneration through means of mechanical dampers.

According to Goal Line, the $SCONO_x$™ catalyst works by simultaneously oxidizing CO to CO_2, NO to NO_2, and then absorbing NO_2. The NO_2 is absorbed into a potassium carbonate catalyst coating as KNO_2 and KNO_3. When a catalyst module begins to become "loaded" with potassium nitrates and nitrates, it is taken off-line and isolated from the flue gas stream with mechanical campers for regeneration.

Once the module has been isolated from the oxygen rich turbine exhaust, natural gas is used to generate hydrogen gas. An absence of oxygen is necessary to retain the reducing properties necessary for regeneration. It should be noted that four percent is about the lower flammability limit for hydrogen, so it is important that piping and air seals around dampers do not leak. Hydrogen reacts with potassium nitrites and nitrates during regeneration to form H_2O and N_2 that is emitted from the stack.

$SCONO_x$™ is an emerging and very new technology. According to Goal Line, the first generation system (Mod 1) was based on a moving hood design that was used for proof of concept. This research led to the development of a second generation prototype (Mod 2) which has operated for over a year on a 23 MW General Electric LM 2500 turbine at the Federal facility operated by Goal Line's parent, Sunlaw Energy. A June 1999 newsletter from Goal Line announced that on May 29, an authority to construct was issued to the PG&E Generating La Paloma Project. The La Paloma FDOC states "Currently, it is uncertain, due to commercial availability issues, if $SCONO_x$™ will be installed on the fourth gas turbine.... The availability of $SCONO_x$™ for this project is contingent on ABB's ability to scale up and test the $SCONO_x$™ system in a time period consistent with La Paloma's schedule." This is an affirmative determination that $SCONO_x$™ is not yet ready for widespread application to 300 MW turbines.

$SCONO_x$™ catalyst is subject to the same fouling or masking degradation that is experienced by any catalyst operating in a turbine exhaust stream. Trace impurities either ingested from ambient air or internal sources gradually accumulate on the surface of the catalyst, eventually masking or poisoning active catalyst sites over time. This is why catalyst performance is known to degrade or "age" over time. As one example, a catalyst system operating on a similar size cogeneration unit at MIT in Cambridge, Massachusetts, experienced total catalyst failure after only several hundred hours of oil fired operation. It turned out that a trace element contained in an oil additive being supplied by the turbine manufacturer was discovered to be an aggressive catalyst poison. In an event, it is well demonstrated that all catalysts begin life at their highest level of reactivity, resulting in very low emissions when first installed. Goal Line reports that they have had to take periodic outages to wash the catalyst; apparently SO_2 present in natural gas is sufficient to mask the active catalyst sites. Goal Line has developed an SO_2 "guard bed" called $SCOSO_x$ to be installed on future systems such as La Paloma, but this component is not fully proven. As stated previously, catalyst aging is also experienced with conventional SCR catalysts; however, with these systems the operating experience exists to confidently predict catalyst life and catalyst replacement cost.

Another area of concern is that the $SCONO_x$™ process is dependent on numerous hot side dampers and gas seals that must cycle every 10-15 minutes. According to Goal Line's literature, at the scale of the Federal facility, this involves approximately eight mechanical dampers cycling about 4 times per hour, or 32 damper movements per hour. At ten times the scale, an equivalent system for the Project would involve about one damper movement every ten seconds, 8,760 hours per year. While further research and development (R&D) may be done during scale up at La Paloma in an effort to reduce the number of moving parts, the $SCONO_x$™ system requires many mechanical linkages, activators, and damper seals which must operate reliably with a hostile flue gas environment. This, in combination with lack of long-term demonstration and the specter of a 10:1 scale up results in associated concerns with long-term availability. The La Paloma beta test will serve as a valuable R&D

process to demonstrate that SCONO$_x$™ can be scaled-up and eventually could be guaranteed commercially available for a project such as the Norton Energy Storage facility.

Commercial Availability

SCONO$_x$™ does not represent a commercially mature control technology for application to the Norton Energy Storage facility. On December 1, 1999 ABB Alstrom Power issued a press release making a commercial offering for SCONO™ on combined-cycle turbines. Further, the unknowns associated with any pollution control system which is the first of its kind, and which has no long-term company or operating history, represents a level of risk that would alter the ability to reasonably finance the project.

Based on above evaluation, Norton Energy Storage facility maintains that SCONOx is not technically available for this project.

XONON catalytic (flame less)combustion - (Front end control)

Another emerging technology, **XONON**, is a catalytic (flameless) combustion technology which potentially capable of reducing gas turbine NO_X emissions to around 3-5 ppm. The XONON combustion technology is being sold commercially for certain (i.e., smaller) engine models and is not yet being offered for larger turbines, such as the 300 MW ALSTOM ET-11NM units proposed for the Norton Energy Storage facility.

Unlike SCONO$_x$ or SCR, flameless combustion requires no down-steam clean up device, but rather prevents the formation of thermal NO_x during combustion of the fuel. This technique avoids the need for ammonia injection and avoids system efficiency losses due to catalyst back pressure. The XONON technology actually replaces the traditional diffusion or lean pre-mix combustion cans of the combustion turbine. Hence, this represents the only catalytic control technology that may be a reasonable retrofit to existing units.

Technical Analysis

According to literature provided by Catalytica, XONON™ combustors have reduced combustion turbine NO_x emissions to as low as 3 ppm in laboratory and pilot tests. Unlike SCONO$_x$™ or SCR, flameless combustion requires no down-stream clean up device, but rather prevents the formation of thermal NO_x during combustion of the fuel. This technique avoids the need for ammonia injection and avoids system efficiency losses due to catalyst back pressure. The XONON™ technology actually replaces the traditional diffusion or lean pre-mix combustion cans of the combustion turbine. Hence, this represents the only catalytic control technology that may be a reasonable retrofit to existing units.

In a typical combustor, fuel and air are burned at flame temperatures that may approach 2,700^{o}F. Since the NO_x formation rate is exponential with flame temperature above about 2,000^{o}F, thermal NO_x is formed within the combustors. The combustor exhaust is then diluted with cooling air to get the gas temperature below 2,400^{o}F, which is the upper temperature limit of the metal parts that make up the power turbine. With the XONON™ system, a fuel/air mixture is oxidized across several small catalyst beds to "burn" fuel at less than the flame temperature at which thermal NO_x formation begins. The XONON™ combustor does, however, utilize a partial flame downstream to complete the combustion process (burnout zone) and unavoidable small amounts of NO_x emissions are generated within this zone. Resulting emissions are being guaranteed at 5 ppm for some small turbine applications (less than 3 MW) and have been demonstrated as low as 3 ppm under test conditions. Like all catalysts, the XONON™ combustor catalyst performance can be expected to "age" with time. Unlike other catalysts, the XONON™ combustors can be easily changed out with a simple combustor replacement.

Commercial Availability

XONON™ does not currently represent an available control technology for the ALSTOM ET-11NM (or any

other 300 MW class turbine). While XONON™ is being sold commercially for certain (mostly smaller) engine models, it is not yet offered for large industrial gas turbines. According to Catalytica, a joint venture agreement is in place with GE to eventually develop XONON™ as Original Equipment Manufacturer (OEM) and retrofit equipment for the entire GE turbine line.

In December 1999 General Electric accepted an order from ENROL for XONON equipped turbine(s). The turbines are for the proposed Pastoral Energy Facility, a 750 MW combined-cycle project proposed by affiliates of Enrol Corporation, that hold a 15 per cent interest in Catalytica Combustion Systems, Inc. Commercial operation is scheduled for the summer of 2003.

Therefore, XONON™ does not represent an available control technology for this project.

Economic Analysis

Since the XONON™ combustors are not offered commercially for the turbines in the size range selected for the Norton Energy Storage facility and cannot provide cost data, an economic analysis could not be performed.

In summary, recent advances in the state of art have resulted in dry low NO_x combustors which limit peak flame temperature and excess oxygen with lean, pre-mix flames that achieve equal or better NO_x control without the addition of water or steam and due to SCONOx not being cost effective and XONON™ combustors are not offered commercially for the turbines in the size range selected, the Norton Energy Storage facility will be using SCR to control NO_x emissions emitted from each of the nine 300 MW gas fired turbines.
Therefore, BACT is proposed to be a NO_x emission rate of 3.5 ppmvd at 15 percent O_2.

Natural Gas Supply Heaters and Recuperator Start-up Heaters

Fuel heaters will be utilized in order to raise the temperature of the incoming natural gas from the pipeline to each turbine. The heaters will be fired with natural gas and each will be rated at approximately 11.57 MMBtu/hr. Warming the incoming fuel improves combustion turbine performance and prevents condensation of liquid in the fuel line that could cause equipment damage.

Also, the combustion turbines will not operate continuously and will be idle over the weekends. To reduce thermal shock to the system and aid in start-up on Monday, small heaters will be provided in the Recuperators to maintain a minimum temperature. It is estimated that these heaters will be rated a 12.84 MMBtu/hr. They are anticipated to operate for only approximately 100 hours per year per unit.

From a review of USEPA's RBLC database, the Norton Energy Storage facility is not aware
of any add-on controls applied to combustion sources in this small size range. Since each recuperator heater will operate at less than 100 hours which results in only 0.06 tons per year of NOx and the natural gas supply heaters will generate only 2.24 tons per year of NOx, the Norton Energy Storage facility believes that at these emissions levels that controls are not cost effective.

BACT is proposed as the use of natural gas as fuel and using USEPA emissions factors to calculate emissions.

Diesel-Fired Emergency Generator and Fire Pump

Each diesel-fired emergency generator is estimated to have a design capacity of 2000 kW and will operate 500 hours or less pe year. The fire pump is estimated to have a design capacity of 570 BHP and will operate 250 hours or less pe year.

At these low amount of operating hours per year, BACT is combustion control per the manufacturer's emissions guarantees.

Control of Carbon Monoxide

Formation

Carbon monoxide (CO) is formed as a result of incomplete combustion of fuel. Control of CO is accomplished by providing adequate fuel residence time and high temperature in the combustion zone to ensure complete combustion. These control factors, however, also tend to result in increased emissions of NO_x. Conversely, a low NO_x emission rate achieved through flame temperature control (by water injection or dry lean pre-mix) can result in higher levels of CO emissions. Thus, a compromise is established whereby the flame temperature reduction is set to achieve the lowest NO_x emission rate possible while optimizing CO emission rates.

Gas Turbines - Ranking of Available Control Techniques

CO emissions from gas turbines are a function of oxygen availability (excess air), flame temperature, residence time at flame temperature, combustion zone design, and turbulence. Alternative CO methods include exhaust gas back end controls such as catalytic oxidation, and front end methods such as combustion control wherein CO formation is suppressed within the combustors.

A review of USEPA's RACT/BACT/LAER Clearinghouse indicates several levels of CO control, which may be achieved for natural gas-fired gas turbines. Potential emission levels and control technologies have been identified and ranked as follows:

- 2 to 6 ppm: CO oxidation catalyst
- 10 to 25 ppm: Combustion control for natural gas firing; oxidation catalyst for distillate oil firing

A review of recent CO BACT determination in Region V indicates only one project that required the installation of an oxidation catalyst as LAER. These levels of control are evaluated in terms of Best Available Control Technology in the following sections.

- LAER: 2 to 6 ppm CO with Catalytic Oxidation

The most stringent CO control level available for gas turbines has been achieved with the use of an oxidation catalyst system, which can remove up to 90 percent of CO in the flue gas stream. According to the list of turbines in the RACT/BACT/LAER Clearinghouse with limits on CO, the lowest emission level listed in the Clearinghouse is 2.0 ppm for Mystic Station in Massachusetts. A CO oxidation catalyst is therefore concluded to represent the top control technology for CO control from natural gas-fired, combined-cycle turbines.

It should be noted that the makers $SCONO_x^{TM}$ provide a conventional oxidation catalyst as part of their scope of supply. This is necessary to make the absorption catalyst work, but is not unique or different from CO catalytic oxidation technology reviewed in this section.

Technical Analysis

As with SCR catalyst technology for NO_x control, oxidation catalyst systems seek to remove pollutants from turbine exhaust gas rather than limiting pollutant formation at the source. Unlike an SCR catalyst system, which requires the use of ammonia as a reducing agent, oxidation catalyst technology does not require the introduction of additional chemicals for the reaction to proceed. Rather, the oxidation of CO to CO_2 utilizes the excess air present in the turbine exhaust; the activation energy required for the reaction to proceed is lowered in the presence of the catalyst. Technical factors relating to this technology include the catalyst reactor design, optimum operating temperature, back-pressure loss to the system, catalyst life, and potential collateral increases

in emissions of PM_{10}.

As with SCR, CO catalytic oxidation reactors operate in a relatively narrow temperature range. Optimum operating temperatures for base metal systems generally fall into the range of 700°F to 900°F. At lower temperatures, CO conversion efficiency falls off rapidly. Above 1,200°F, catalyst sintering may occur, thus causing permanent damage to the catalyst. Operation with duct burners on or off, at part load, or during start-up/shut-down can result in other than optimum temperatures and reduced control efficiency.

Catalyst systems are subject to loss of activity over time. Since the catalyst itself is the most costly part of the installation, the cost of catalyst replacement has been accounted for on an annualized basis. Depending on the actual installation, catalyst life may vary from the manufacturer's typical 3-year guarantee to a 5- to 6-year predicted life. Periodic testing of catalyst material is necessary to predict actual catalyst life for any given installation. The following economic analysis assumes that catalyst will be replaced every 3 years per vendor guarantee. This system would also be expected to control a small undetermined amount of hydrocarbon (VOC) emissions.

Environmental Analysis

A CO catalyst will also oxidize other species within the turbine exhaust. For example, sulfur in natural gas (fuel sulfur and mercaptans added as an odorant) is oxidized to gaseous SO_2 within the combustor, and a percentage is further oxidized to SO_3 across a CO catalyst (30% conversion is assumed). SO_3 will then be emitted and/or combined with water to form H_2SO_4 (sulfuric acid mist) or ammonia to form ammonia salts (PM_{10}) in the exhaust stack. These sulfates condense in the gas stream or in the atmosphere as additional PM_{10} (and $PM_{2.5}$). Thus, an oxidation catalyst would reduce emissions of CO and to some extent VOC, but would increase emissions of PM_{10} and $PM_{2.5}$.

Economic Analysis

The cost effectiveness for the Norton Energy Storage facility is $6,949 per ton of CO removed for 4,160 hours per year of operation.

Summary

The use of an oxidation catalyst to control emissions of CO from the turbines is not cost effective, and therefore does not represent BACT for the Project.

BACT for the project will be 11 ppmvd employing combustion controls and natural gas as fuel and 6 ppmvd with duct firing.

Natural Gas Supply Heaters and Recuperator Start-up Heater

Fuel heaters will be utilized in order to raise the temperature of the incoming natural gas from the pipeline to each turbine. The heaters will be fired with natural gas and each will be rated at approximately 11.57 MMBtu/hr. Warming the incoming fuel improves combustion turbine performance and prevents condensation of liquid in the fuel line that could cause equipment damage.

Also, the combustion turbines will not operate continuously and will be idle over the weekends. To reduce thermal shock to the system and aid in start-up on Monday, small heaters will be provided in the Recuperators to maintain a minimum temperature. It is estimated that these heaters will be rated a 12.84 MMBtu/hr. They are anticipated to operate for only approximately 100 hours per year per unit.

From a review of USEPA's RBLC database, the Norton Energy Storage facility is not aware of any add-on controls applied to combustion sources in this small size range. Since each recuperator heater will operate at less than 100 hours which results in only 0.03 tons per year of NOx and the natural gas supply heaters will generate only 0.95 tons per year of NOx, the Norton Energy Storage facility believes that at these emissions levels that controls are not cost effective.

BACT is proposed as the use of natural gas as fuel and using USEPA emissions factors to calculate emissions.

Diesel-Fired Emergency Generator and Fire Pump

Each diesel-fired emergency generator is estimated to have a design capacity of 2000 kW and will operate 500 hours or less pe year. The fire pump is estimated to have a design capacity of 570 BHP and will operate 250 hours or less pe year.

At these low amount of operating hours per year, BACT is combustion control per the manufacturer's emissions guarantees.

BACT Control of Sulfur Dioxide (SO_2) and BAT for Sulfuric Acid Mist (H_2SO_4)

Combustion Turbines and Duct Burners

SO_2 is emitted from the combustion turbines as a result of the oxidation of the sulfur in the fuel. SO_2 can further be oxidized to sulfur trioxide that will readily combine with any moisture in the exhaust gases to form sulfuric acid mist (H_2SO_4).

SOx emissions from any combustion process are directly related to the sulfur content of the fuel being combusted. Emissions can be controlled either by limiting the sulfur content of the fuel being combusted.

FDG technology is one technology that is used to control SO_2 emitted from various combustion sources. An FGD system could be comprised of either a spray dryer which uses lime as a reagent followed by particulate control (baghouse or electrostatic precipitator) or a wet scrubber which uses limestone as a reagent. Installation of such systems is an established technology principally on coal-fired and high sulfur oil-fired steam-electric generating stations. FGD systems have not been installed on combustion turbines because of technical and cost factors associated with treating large volumes of high temperature gas containing relatively low levels of SO_2. FDG systems typically operate at an inlet temperature of approximately 400 to 500^0F. In addition, FGD systems are not typically effective for streams with low SO_2 concentrations such as the flue gas stream from the proposed turbines. The concentration of SO_2 in the exhaust gas is the driving force for the reaction between SO_2 and the reagent. Therefore, removal efficiencies are significantly reduced with lower inlet concentrations of SO_2.

FGD systems also have energy and environmental impacts associated with their operation. A significant amount of energy is required to operate a FGD system due to the pressure drop over the scrubbers. There are also environmental impacts (e.g., bulk materials handling, wastewater discharges, and solid waste management) due to the disposal of the spent reagent and the high water use required for a wet scrubbing system.

Traditional flue gas desulfurization (FGD) acid gas controls such as wet scrubbers, spray dryer absorbers (SDA) and dry sorbent injection technology has not been proposed for similar applications due to high temperature regimes with thermal cycling, elevated pressure drop impedances which has significant back pressure implications resulting in severe operational impacts, and very low emissions rates coupled with significant air volumes.

For the technical reason and energy and environmental impacts presented above FGD systems are excluded from further consideration in the Project BACT analysis.

Potential emission levels and control technologies have been identified and ranked as follows:

- Fuel spec: Clean Burn Fuel;
- Good Combustion Practice/Combustion Control; and,
- Low - Sulfur Fuel

Fuel spec: Clean Burn Fuel

Among traditional fuels, natural gas is considered a clean burn fuel since it has a very low potential for generating SO_2 emissions. The proposed project will utilize only natural gas as the primary fuel for all nine combined-cycle turbines.

Good Combustion Practice/Combustion Control

The project operators will maintain the turbines in good working order per manufacturer's guidance and implement good combustion practice to minimize SO_2 emissions.

Low - Sulfur Fuel

The only fuel for the proposed project combustion turbine units is natural gas which has a negligible sulfur content of 2 grains/100 scf.

In summary, the NSPS established maximum allowable SO_2 emissions associated with combustion turbines requires either an SO_2 emissions limitation of 150 ppmvd at 15 percent O_2 or a maximum fuel content of 0.8 percent by weight (40 CFR 60, Subpart GG). Gas firing results in SO_2 emissions at approximately 1 ppmvd. Therefore, the very low SO_2 emission rate that results from the use of natural gas as the sole fuel represents BACT control for SO_2 emissions from the combustion turbine along with good combustion practices mentioned above.

Natural Gas Supply Heaters and Recuperator Start-up Heater

Fuel heaters will be utilized in order to raise the temperature of the incoming natural gas from the pipeline to each turbine. The heaters will be fired with natural gas and each will be rated at approximately 11.57 MMBtu/hr. Warming the incoming fuel improves combustion turbine performance and prevents condensation of liquid in the fuel line that could cause equipment damage.

Also, the combustion turbines will not operate continuously and will be idle over the weekends. To reduce thermal shock to the system and aid in start-up on Monday, small heaters will be provided in the Recuperators to maintain a minimum temperature. It is estimated that these heaters will be rated a 12.84 MMBtu/hr. They are anticipated to operate for only approximately 100 hours per year per unit.

From a review of USEPA's RBLC database, the Norton Energy Storage facility is not aware of any add-on controls applied to combustion sources in this small size range. Since these units will operated on a limited basis, this results in less than 1 ton per year of SO_2 emissions and negligible amount of H_2SO_4 emissions . Therefore, the Norton Energy Storage facility believes that at these emissions levels that controls are not cost effective.

BACT is proposed as the use of natural gas as fuel and using USEPA emissions factors to calculate emissions.

Diesel-Fired Emergency Generator and Fire Pump

Each diesel-fired emergency generator is estimated to have a design capacity of 2000 kW and will operate 500 hours or less pe year. The fire pump is estimated to have a design capacity of 570 BHP and will operate 250 hours or less pe year.

At these low operating hours per year amounts, BACT is combustion control per the manufacturer's emissions guarantees.

Control of Volatile Organic Compounds (VOC)

Formation

Non-methane hydrocarbons (also referred to as volatile organic compounds or VOCs) and trace organics are emitted from gas-fired turbines as a result of incomplete combustion of fuel. Control of these pollutants is accomplished by providing adequate fuel residence time and high temperature in the combustion zone to ensure complete combustion.

Gas Turbines and Duct Burners

Potential emission levels and control technologies have been identified and ranked as follows:

- Fuel spec: Clean Burn Fuel;
- Good Combustion Practice/Combustion Control; and,
- VOC Oxidation Catalyst

Fuel spec: Clean Burn Fuel

The proposed project will utilize only natural gas as the primary fuel for all nine combined cycle turbines. Natural gas is considered a clean burn fuel since it has a very low potential for generating VOC emissions.

Good Combustion Practice/Combustion Control

The project operators will maintain the turbines in good working order per manufacturer's guidance and implement good combustion practice to minimize VOC emissions. The gas turbine manufacturer has provided VOC emissions guarantee levels of 2 ppmvd for normal operating load (75 to 100%). The duct burners will fire only natural gas and are estimated to add a maximum of 1.0 ppmvd tot he exhaust stream.

VOC Oxidation Catalyst

An oxidation catalyst designed to control CO would provide a side benefit of controlling a portion of the VOC emissions. The level of control is dependent on the content of the natural gas. The next level of control is combustion controls where VOC emissions are minimized by optimizing fuel mixing, excess air, and combustion temperature to assure complete combustion of the fuel.

The same technical factors that apply to the use of oxidation catalyst technology for control of CO emissions (narrow operating temperature range, loss of catalyst activity over time, and system pressure losses) apply to the use of this technology for collateral control of VOC. Since the Project will not employ a CO catalyst, the collateral reductions in VOC are not available.

Since an oxidation catalyst was shown to not be cost effective for control of CO, it would not be cost effective for control of VOCs at a much lower emission rate (20% of the CO annual emissions) and lower control efficiency. An oxidation catalyst is therefore no longer considered as a BACT option for this Project.

BACT for controlling VOC emissions is proposed as maintenance of the turbines in good working order, implementation of good combustion practice with the use of state-of-art Dry Low-NOX combustor technology and use of a clean burning natural gas fuel as the only fuel to meet a VOC emissions rate of 2 ppmvd per turbine.

Natural Gas Supply Heaters and Recuperator Start-up Heater

Fuel heaters will be utilized in order to raise the temperature of the incoming natural gas from the pipeline to each turbine. The heaters will be fired with natural gas and each will be rated at approximately 11.57 MMBtu/hr. Warming the incoming fuel improves combustion turbine performance and prevents condensation of liquid in the fuel line that could cause equipment damage.

Also, the combustion turbines will not operate continuously and will be idle over the weekends. To reduce thermal shock to the system and aid in start-up on Monday, small heaters will be provided in the Recuperators to maintain a minimum temperature. It is estimated that these heaters will be rated a 12.84 MMBtu/hr. They are anticipated to operate for only approximately 100 hours per year per unit.

From a review of USEPA's RBLC database, the Norton Energy Storage facility is not aware of any add-on controls applied to combustion sources in this small size range. Since these units will operated on a limited basis, this results in less than 1 ton per year of VOC emissions. Therefore, the Norton Energy Storage facility believes that at these emissions levels that controls are not cost effective.

BACT is proposed as the use of natural gas as fuel and using USEPA emissions factors to calculate emissions.

Diesel-Fired Emergency Generator and Fire Pump

Each diesel-fired emergency generator is estimated to have a design capacity of 2000 kW and will operate 500 hours or less pe year. The fire pump is estimated to have a design capacity of 570 BHP and will operate 250 hours or less pe year.

At these low operating hours per year amounts, BACT is combustion control per the manufacturer's emissions guarantees.

Control of Particulate Matter

Combustion Turbines and Duct Burners

Emissions of PM and particulate matter less than PM_{10} from the combustion turbine result from inert solids contained in the fuel, unburned fuel hydrocarbons which agglomerate to form particles, and mineral matter in the water injected during diesel oil firing. All of the particulate matter emitted from the turbine is expected to be less than 10 micrometers in diameter.

When the New Source Performance Standard for Stationary Gas Turbines (40 CFR 60 Subpart GG) was promulgated in 1979, the EPA recognized that "particulate emissions from stationary gas turbines are minimal," and noted that particulate control devices are not typically installed on gas turbines and that the cost of installing a particulate control device is prohibitive. Performance standards for particulate control of stationary gas turbines were, therefore, not proposed or promulgated.

Natural gas is a clean burning fuel. Natural gas contains essentially no inert solids (ash). Clean fuels are required for combustion turbines in order to prevent damage to the turbine blades and other high precision turbine components. The installation of a particulate control device on a turbine firing clean fuels is considered to be impractical. Additionally, the small size of the particulates (100% 1μ, AP-42, Section 3.1) make add-on controls technically infeasible.

Given the high combustion efficiency of the turbines and the firing of clean fuels, PM emissions will be very low. PM/PM_{10} emissions from the Project will be less than 0.02 $lb/10^6$ Btu. The Project proposes the use of natural

gas as the sole fuel and good combustion practices as BACT for particulate matter.

The most stringent particulate control method demonstrated for gas turbines is the use of low ash fuel (such as natural gas or low sulfur transportation diesel). No add-on control technologies are listed in the RACT/BACT/LAER Clearinghouse listings for combustion turbines. Proper combustion control and the firing of fuels with negligible or zero ash content is the predominant control method listed.

Add-on controls, such as ESPs or baghouses, have never been applied to commercial gas/oil fired turbines or diesels engines. The use of ESPs and baghouse filters is considered technically infeasible, and does not represent an available control technology.

Cooling Towers

Dissolved particles are emitted from the cooling towers as the water evaporates during the evaporative cooling. These particulates often drop with the water droplets very close to the tower. The cooling towers for the Norton Energy Storage facility will employ high efficiency mist eliminators that will minimize drift from the cooling towers. The design draft rate will be 0.0005%, which is considered state of the art for drift elimination.

Natural Gas Supply Heaters and Recuperator Start-up Heater

Fuel heaters will be utilized in order to raise the temperature of the incoming natural gas from the pipeline to each turbine. The heaters will be fired with natural gas and each will be rated at approximately 11.57 MMBtu/hr. Warming the incoming fuel improves combustion turbine performance and prevents condensation of liquid in the fuel line that could cause equipment damage.

Also, the combustion turbines will not operate continuously and will be idle over the weekends. To reduce thermal shock to the system and aid in start-up on Monday, small heaters will be provided in the Recuperators to maintain a minimum temperature. It is estimated that these heaters will be rated a 12.84 MMBtu/hr. They are anticipated to operate for only approximately 100 hours per year per unit.

From a review of USEPA's RBLC database, the Norton Energy Storage facility is not aware of any add-on controls applied to combustion sources in this small size range. Since these units will operated on a limited basis, this results in less than 1 ton per year of PM*/PM_{10} emissions . Therefore, the Norton Energy Storage facility believes that at these emissions levels that controls are not cost effective.

BACT is proposed as the use of natural gas as fuel and using USEPA emissions factors to calculate emissions.

Diesel-Fired Emergency Generator and Fire Pump

Each diesel-fired emergency generator is estimated to have a design capacity of 2000 kW and will operate 500 hours or less pe year. The fire pump is estimated to have a design capacity of 570 BHP and will operate 250 hours or less pe year.

At these low operating hours per year amounts, BACT is combustion control per the manufacturer's emissions guarantees.

* Particulate Matter and Particulate Matter <10 are assumed to be the same.

Ambient Air Quality Monitoring Requirements

The Norton Energy Storage facility installation is located in Air Quality Control Region (AQCR) 174. The area is attainment or attainment/unclassifiable for total suspended particulates, particulate matter less than 10 microns,

sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds (ozone) and lead.

U.S. EPA regulations may require a year of ambient air quality data to be obtained as part of the PSD application. An applicant may conduct monitoring on-site, model to demonstrate a "de minimus" impact, or used existing air quality data to fill some of the requirements of a PSD ambient air quality analysis. If monitoring is required, U.S. EPA has set up specific conditions on the acceptability of existing air quality monitors is to ensure the monitor is representative of air quality in the area.

In this instance, Norton Energy Storage. LLC has conducted ambient air quality modeling that predicts the ambient air quality impact of the source(s) to be less than the monitoring de minimus concentrations for NO_2, PM_{10}, SO_2, and CO. Therefore, Norton Energy Storage. LLC would not be required to conduct pre-application monitoring. A summary is below:

Pollutant	Averaging Period	Monitoring Predicted Concentration	Monitoring De Minimus Concentration
NO_2	Annual*	0.85 ug/m^3	14 ug/m^3
CO	8-hour high	163 ug/m^3	575 ug/m^3
PM_{10}	24-hour high	3.83 ug/m^3	10 ug/m^3
SO_2	24-hour high**	3.83 ug/m^3	13 ug/m^3

*Annual average based on gas-fired (4160 hours) impacts.

Modeling

Air quality dispersion modeling was conducted to assess the effect of these sources on ambient air quality standards and PSD increments. The U.S. EPA Industrial Source Complex-Short Term (ISCST3, Version 00101) model was used for the refined modeling analysis. This refined modeling was performed after SCREEN3 modeling indicated significant impacts from the Project. The purposed of the refined modeling was to demonstrate that projects impacts were insignificant and that PSD and NAAQS analyses would be unnecessary.

The ISCST3, Version 00101 model was the appropriate model for this analysis, based on the need to model simple to intermediate terrain, the need to incorporate building wake effects, the need to predict both short-term and long-term (annual) average concentrations, and the need to incorporate impacts from multiple and separated emissions units.

Additional modeling using the CTSCREEN, version 94111 model was used to address nearby terrain above stack tip (complex terrain).

The ISCST3, Version 00101 model was run with the regulatory default options (stack-tip downwash, buoyancy-induced dispersion, final plume rise), default wind speed profile categories, default potential temperature gradient, and no pollutant decay. Building downwash was assessed using either the Huber-Snyder or Schulman-Sire downwash methodology, depending on the stack and nearby building heights.

Building wake effects will influence emissions from stacks with heights less than Good Engineering Practice (GEP). The ISCST3, Version 00101 model requires input of building heights and projected building widths for

36 wind directions. The U.S. EPA Building Profile Input Program (BPIP) was used to determine the direction-specific building dimensions.

The ISCST3, Version 00101 model was run utilizing the National Weather Service meteorological data processed using the U.S. EPA PCRAMMET program. OEPA provided five years of the most recent PCRAMMET processed meteorological data on their bulletin board system. Following OEPA modeling guidance concerning representative meteorological data for various counties, the Akron surface, Pittsburgh upper air (1987-1991) PCRAMMET data were used in the refined modeling analysis.

Modeling Results/Increment Analysis

Modeling at 100%, and 75% loads, for natural gas, and using stack parameters based on average as well as extreme ambient temperatures, was performed to determine the worst case impacts for each pollutant. The results are as follows: The maximum predicted annual and 24-hour average PM_{10} concentration of 0.18 ug/m3 and 3.83 ug/m^3, respectively, were below the corresponding significant impact increments of 1 and 5 ug/m^3. Therefore, no additional dispersion modeling analyses for PM_{10} were necessary for PM.

The maximum predicted 1-hour and 8-hour CO concentration of 1345 ug/m3 and 163 ug/m^3 respectively were below the corresponding significant impact increments of 2000 and 500 ug/m^3. Therefore, no additional dispersion modeling analysis were necessary for CO.

The maximum predicted annual NO_2 concentration of 0.85 ug/m^3 was below the corresponding significant impact increment of 1.0 ug/m^3. Therefore no additional dispersion analysis was necessary for NO_2.

The maximum predicted annual, 24-hour and 3-hour average SO_2 concentrations of 0.03 ug/m3, 3.83 ug/m3 and 16.9 ug/m^3 were below the corresponding significant impart increments of 1.0, 5.0 and 25.0 ug/m^3. Therefore, no additional dispersion modeling analysis was necessary for SO_2.

Secondary Impact

The closest Class I area to the Norton Energy Storage facility are the Dolly Sods National Wilderness Area and the Otter Creek National Wilderness Area. Both these wilderness areas are almost 300 km to the southeast.

Federal PSD regulation regulations require that the reviewing authority provide written notification of projects which may affect a Class 1 area. "May effect" is typically interpreted by EPA as a major source or major modification within 100 kilometers. Since the Norton Energy Storage facility is located greater than 100 kilometers from any Class I area, and all modeled impacts are below Significant Impact Levels, the Norton Energy Storage facility was not subject to the visibility analysis modeling.

For the most part, soils and vegetation are generally protected by the secondary NAQQS. Ambient concentrations of criteria pollutants below this level are not generally expected to cause harmful effects to soil and vegetation. The facility's impact for NOx, CO, PM_{10}, and SO_2 are below PSD significant impact levels and therefore should provide protection against adverse effect of this project on soils and vegetation in the area.

Conclusions

Based upon analysis of the permit to install application and it's supporting documentation provided by Norton Energy Storage. LLC, the Ohio EPA staff has determined that the proposed increase will comply with all applicable State and Federal environmental regulations and that the requirements for BACT are satisfied. Therefore, the Ohio EPA staff recommends that a permit to install be issued to Norton Energy Storage, LLC.

State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL MODIFICATION **CERTIFIED MAIL**
SUMMIT COUNTY

Street Address: Mailing Address: Lazarus Gov. Center
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Application No: 16-02110

DATE: 10/25/2001

Norton Energy Storage
Dennis Hockenbury
20445 State Hwy 249 Suite 230
Houston, TX 77070-2616

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of **$ 18000** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.
Very truly yours,

Thomas G. Rigo
Field Operations and Permit Section
Division of Air Pollution Control

cc: **USEPA ARAQMD Akron Met. Area Trans Study WV PA**

Permit To Install
Terms and Conditions

Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance

DRAFT MODIFICATION OF PERMIT TO INSTALL 16-02110

Application Number:	16-02110
APS Premise Number:	1677100033
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	Norton Energy Storage
Person to Contact:	Dennis Hockenbury
Address:	20445 State Hwy 249 Suite 230 Houston, TX 77070-2616

Location of proposed air contaminant source(s) [emissions unit(s)]:
3700 Limestone Dr
Norton, Ohio

Description of proposed emissions unit(s):
Modification of terms and conditions of PTI 16-02110 issued final on 8/28/01.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.10 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06**.**
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit

shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Source Operation and Operating Permit Requirements After Completion of Construction

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete

Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35 , the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

5. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may

be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

6. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

7. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

8. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

9. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

10. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

Pollutant	Tons Per Year
NOx	360
SO2	48.1
CO	1767.4
VOC	147.9
PM	318.5
NH3	374.4
formaldehyde	9.86
sulfuric acid mist	4.77

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

The emissions of Hazardous Air Pollutants (HAPs), as defined in Section 112(b) of the Clean Air Act, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility combined, shall not exceed 9.86 tons per year for an individual HAP(formaldehyde) and 25 tons per year for any combination of HAPs*, per rolling 12 month period.

Since the restricted potential to emit for all HAPs is less than 25 tons, no monitoring, record keeping, or reporting requirements are necessary to meet this limit.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
Fuel Supply Heater #1 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
	40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
	40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per year	
particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B001 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B001, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

Emissions Unit ID: B001

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated

startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor

for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #1 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: B002

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #2 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	year
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per	

Emissions Unit ID: B002

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B002 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B002, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

Emissions Unit ID: B002

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

$(1.71 \times 10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #2 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #3 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	year
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per	

Emissions Unit ID: B003

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B003 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B003, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board

401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

Emissions Unit ID: B003

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B003

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #3 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #4 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	year
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per	

Emissions Unit ID: B004

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B004 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B004, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board

401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #4 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #5 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	year
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per	

Emissions Unit ID: B005

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B005 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B005, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board

401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Emissions Unit ID: B005

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #5 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #6 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per year	
particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B006 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B006, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

Emissions Unit ID: B006

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor

for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B006

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #6 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #7 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per	

Emissions Unit ID: B007

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B007 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B007, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board

401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

Emissions Unit ID: B007

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B007

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #7 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #8 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B008 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B008, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board

401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #8 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #9 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.458 lb/hr, and 0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B009 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B009, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative heat input for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board

401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71 \times 10^{-6}$ lb SO_2 / scf

$(1.71 \times 10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.458 lb/hr, and 0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.458 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.458 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 0.95
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #9 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #1 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton per year	
particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat	

Emissions Unit ID: B010

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B010 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B010, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and

at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the

Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71x10^{-6}$ lb SO_2 / scf

($1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year

Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #1 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: B011

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #2 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B011 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B011, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and

at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the

Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71x10^{-6}$ lb SO_2 / scf

($1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B011

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #2 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #3 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B012 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B012, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and

at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71x10^{-6}$ lb SO_2 / scf

($1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

Emissions Unit ID: B012

lb/hr

Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #3 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #4 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton	

Emissions Unit ID: B013

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B013 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B013, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input

Emissions Unit ID: B013

1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #4 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #5 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	input
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton per year	
particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat	

Emissions Unit ID: B014

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B014 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B014, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and

at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the

Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B014

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #5 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #6 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton per year	
particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B015 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B015, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and

at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the

Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
$= 1.71x10^{-6}$ lb SO_2 / scf

($1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B015

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #6 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: B016

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #7 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton	

Emissions Unit ID: B016

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B016 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B016, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and

at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the

Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B016

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #7 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #8 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B017 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B017, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and

at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

Emissions Unit ID: B017

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

Emissions Unit ID: B017

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B017

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #8 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #9 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.098 lb/hr, and 0.005 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.207 lb/hr, and 0.06 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.06 SO_2 - 0.0012 PM - 0.005 CO - 0.03 VOC - 0.004 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.023 lb/hr, and 0.0012 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040 lb/MMBtu actual heat input 0.514 lb/hr, and 0.03 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.071 lb/hr, and 0.004 ton	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B018 shall not exceed 100 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	20
1 - 2	40
1 - 3	60
1 - 4	80
1 - 5	100
1 - 6	100
1 - 7	100
1 - 8	100
1 - 9	100
1 - 10	100
1 - 11	100
1 - 12	100

After the first 12 calendar months following the startup of emissions unit B018, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

4. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input

Emissions Unit ID: B018

1.207 lb/hr, and 0.06 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 1.207 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.207 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.023 lb/hr, and 0.0012 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.023 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.023 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040 lb/MMBtu actual heat input
0.514 lb/hr, and 0.03 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 40 lb/10^6 scf.

(40 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.040 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.514 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.514 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.071 lb/hr, and 0.004 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.071 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.071 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.098 lb/hr, and 0.005 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (12.84 MMBtu/hr). The resulting value is 0.098 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.098 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.06
SO_2 - 0.0012
PM - 0.005
CO - 0.03
VOC - 0.004

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

7. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B018

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #9 - 12.84 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #1 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B), OAC rule 3745-17-08(B), OAC 3745-31- (13) thru (20), and 40 CFR 52.21. particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year 10% opacity as a 3-minute average (fugitive emissions)
	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than that established above.
	OAC rule 3745-17-08(B)	See section A.II.1 below.
	OAC 3745-31- (13) thru (20), and 40 CFR 52.21.	The tons per rolling 12-month period shall not exceed : PM - 24.6 tons per year

2. Additional Terms and Conditions

2.a The 5.62 lbs/hr limitation was established for PTI purposes to reflect the potential to emit

for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

Emissions Unit ID: F001

II. Operational Restrictions

1.The permittee shall employ mist eliminators to minimize drift from the cooling tower.

III. Monitoring and/or Recordkeeping Requirements

1.PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 5.62 lb/hr PM limitation.

2. The permittee shall submit deviation reports as specified in Part I - General Terms and Conditions of this permit under section (A)(2).

V. Testing Requirements

1.Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be

determined in accordance with the following method(s):

a. Emission Limitation:

particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the procedures from AP-42, Section 13.4 (1/95).

PM emissions (lb/hr) = WCR * Drift * TDS * [(3.78L/gal)*(2.20E-06 lb/mg)*(60min/hr)]

Where:

WCR = maximum water circulation rate, 749,342 gpm (based on compression phase for turbines)
Drift = 0.0005%
TDS = total dissolved solids, 3,000mg/L

Compliance with the annual limitation shall be demonstrated by multiplying the hourly PM emissions rate by actual hours/year and dividing by 2,000 lb/ton.

b. Emission Limitation:

10% opacity as a 3-minute average (fugitive emissions)

Applicable Compliance Method:

OAC rule 3745-17-03(B)(3)

VI. Miscellaneous Requirements

None

Emissions Unit ID: F001

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #1 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: F002

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #2 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B), OAC rule 3745-17-08(B), OAC 3745-31- (13) thru (20), and 40 CFR 52.21. particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year 10% opacity as a 3-minute average (fugitive emissions)
	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than that established above.
	OAC rule 3745-17-08(B)	See section A.II.1 below.
	OAC 3745-31- (13) thru (20), and 40 CFR 52.21..	The tons per rolling 12-month period shall not exceed : 24.6 tons per year

2. Additional Terms and Conditions

2.a The 5.62 lbs/hr limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

Emissions Unit ID: F002

II. Operational Restrictions

1.The permittee shall employ mist eliminators to minimize drift from the cooling tower.

III. Monitoring and/or Recordkeeping Requirements

1.PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 5.62 lb/hr PM limitation.

2. The permittee shall submit deviation reports as specified in Part I - General Terms and Conditions of this permit under section (A)(2).

V. Testing Requirements

1.Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be

determined in accordance with the following method(s):

a. Emission Limitation:

particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the procedures from AP-42, Section 13.4 (1/95).

PM emissions (lb/hr) = WCR * Drift * TDS * [(3.78L/gal)*(2.20E-06 lb/mg)*(60min/hr)]

Where:

WCR = maximum water circulation rate, 749,342 gpm (based on compression phase for turbines)
Drift = 0.0005%
TDS = total dissolved solids, 3,000mg/L

Compliance with the annual limitation shall be demonstrated by multiplying the hourly PM emissions rate by actual hours/year and dividing by 2,000 lb/ton.

b. Emission Limitation:

10% opacity as a 3-minute average (fugitive emissions)

Applicable Compliance Method:

OAC rule 3745-17-03(B)(3)

VI. Miscellaneous Requirements

None

Emissions Unit ID: F002

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #2 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #3 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B), OAC rule 3745-17-08(B), OAC 3745-31- (13) thru (20), and 40 CFR 52.21. particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year 10% opacity as a 3-minute average (fugitive emissions)
	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than that established above.
	OAC rule 3745-17-08(B)	See section A.II.1 below.
	OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D)	The tons per rolling 12-month period shall not exceed : PM - 24.6 tons per year

2. Additional Terms and Conditions

2.a The 5.62 lbs/hr limitation was established for PTI purposes to reflect the potential to emit

for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

Emissions Unit ID: F003

II. Operational Restrictions

1.The permittee shall employ mist eliminators to minimize drift from the cooling tower.

III. Monitoring and/or Recordkeeping Requirements

1.PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 5.62 lb/hr PM limitation.

2. The permittee shall submit deviation reports as specified in Part I - General Terms and Conditions of this permit under section (A)(2).

V. Testing Requirements

1.Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be

determined in accordance with the following method(s):

a. Emission Limitation:

particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the procedures from AP-42, Section 13.4 (1/95).

PM emissions (lb/hr) = WCR * Drift * TDS * [(3.78L/gal)*(2.20E-06 lb/mg)*(60min/hr)]

Where:

WCR = maximum water circulation rate, 749,342 gpm (based on compression phase for turbines)
Drift = 0.0005%
TDS = total dissolved solids, 3,000mg/L

Compliance with the annual limitation shall be demonstrated by multiplying the hourly PM emissions rate by actual hours/year and dividing by 2,000 lb/ton.

b. Emission Limitation:

10% opacity as a 3-minute average (fugitive emissions)

Applicable Compliance Method:

OAC rule 3745-17-03(B)(3)

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #3 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #1 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

				40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
				OAC rule 3745-31- 05(D)
				40 CFR Part 75 OAC rule 3745-103
OAC (A)(3)	Rule	3745-31-05		
OAC (A)(3)	Rule	3745-31-05	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
PM emissions shall not exceed 12.0 lbs/hr	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
		sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
		carbon monoxide (CO) emissions shall not exceed 195.4 tons per year

volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3	
The tons per rolling 12-month period shall not	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P001) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior

to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895

VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P001 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P001, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30

days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40

CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75,

Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)

Emissions Unit ID: P001

Washington, DC 20460

Emissions Unit ID: P001

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7.

The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by

the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing

16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

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hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing

41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Emissions Unit ID: P001

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P001 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #1 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #2 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		OAC Rule 3745-17-07(A) 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D) 40 CFR Part 75
OAC Rule 3745-31-05 (A)(3)		OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) 40 CFR part 60, Subpart Db OAC Rule 3745-17-11 (B)(4)	

Emissions Unit ID: P002

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), OAC 3745-31-05(D), 40 CFR 52.21, 40 CFR 60 Subpart GG and Db.	formaldehyde emissions shall not exceed 0.4512 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	formaldehyde emissions shall not exceed 0.1132 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	PM emissions shall not exceed 13.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
PM emissions shall not exceed 12.0 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	carbon monoxide (CO) emissions shall not exceed 195.4 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year
ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr	ammonia (NH3) emissions shall not exceed 41.6 tons per year
	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)	formaldehyde emissions shall not exceed 1.096 tons per year
		sulfuric acid mist emissions shall not exceed

0.53 tons per year

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

operational restriction, see II. 1.

See section A.2.b below.

See section A.2.a below.

See section A.2.a below.

See section A.2.a below.

The tons per rolling 12-month period shall not exceed :
NOx - 37.7
SO_2 - 5.30
PM - 27.0
CO - 195.4
VOC - 16.3

The tons per rolling 12-month period shall not exceed
formaldehyde - 1.096

See section A.I.2.c below.

See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P002) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17

Emissions Unit ID: P002

Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P002 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P002, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

Emissions Unit ID: P002

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section

3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality

assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Emissions Unit ID: P002

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year

and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of

formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by

the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed

1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated

with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P002 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #2 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #3 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
PM emissions shall not exceed 12.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
		PM emissions shall not exceed 27.0 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
		carbon monoxide (CO) emissions shall not exceed 195.4 tons per year

volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3	
The tons per rolling 12-month period shall not	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P003) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior

to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895

VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P003 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P003, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

Emissions Unit ID: P003

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the

end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

Emissions Unit ID: P003

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Emissions Unit ID: P003

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing

16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing

41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Emissions Unit ID: P003

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P003 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #3 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #4 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
		40 CFR Part 75
OAC Rule 3745-31-05 (A)(3)		OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4)	

Emissions Unit ID: P004

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), OAC 3745-31-05(D), 40 CFR 52.21, 40 CFR 60 Subpart GG and Db.	formaldehyde emissions shall not exceed 0.4512 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	formaldehyde emissions shall not exceed 0.1132 tons per year
	PM emissions shall not exceed 13.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
PM emissions shall not exceed 12.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	carbon monoxide (CO) emissions shall not exceed 195.4 tons per year
ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year
	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr	ammonia (NH3) emissions shall not exceed 41.6 tons per year
	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)	formaldehyde emissions shall not exceed 1.096 tons per year
		sulfuric acid mist emissions shall not exceed

0.53 tons per year

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

operational restriction, see II. 1.

See section A.2.b below.

See section A.2.a below.

See section A.2.a below.

See section A.2.a below.

The tons per rolling 12-month period shall not exceed :
NOx - 37.7
SO_2 - 5.30
PM - 27.0
CO - 195.4
VOC - 16.3

The tons per rolling 12-month period shall not exceed :
formaldehyde - 1.096

See section A.I.2.c below.

See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P004) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*

Emissions Unit ID: P004

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P004 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P004, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the

test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and

available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and

(2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Emissions Unit ID: P004

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year

and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of

formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by

the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed

Emissions Unit ID: P004

1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated

with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P004 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #4 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #5 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
PM emissions shall not exceed 12.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
		PM emissions shall not exceed 27.0 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
		carbon monoxide (CO) emissions shall not exceed 195.4 tons per year

volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3	
The tons per rolling 12-month period shall not	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P005) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior

to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895

VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P005 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P005, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

Emissions Unit ID: P005

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the

end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing

16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

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hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing

41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

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Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P005 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #5 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #6 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
PM emissions shall not exceed 12.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
		PM emissions shall not exceed 27.0 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
		carbon monoxide (CO) emissions shall not exceed 195.4 tons per year

volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3	
The tons per rolling 12-month period shall not	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P006) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Emissions Unit ID: P006

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior

to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895

VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P006 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P006, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

Emissions Unit ID: P006

Emissions Unit ID: P006

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7.

The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Dbof the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by

the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing

16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing

41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Emissions Unit ID: P006

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P006 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #6 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #7 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
OAC Rule 3745-31-05 (A)(3)		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4)	

Emissions Unit ID: P007

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), OAC 3745-31-05(D), 40 CFR 52.21, 40 CFR 60 Subpart GG and Db.	formaldehyde emissions shall not exceed 0.4512 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	formaldehyde emissions shall not exceed 0.1132 tons per year
	PM emissions shall not exceed 13.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
PM emissions shall not exceed 12.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	carbon monoxide (CO) emissions shall not exceed 195.4 tons per year
ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year
	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr	ammonia (NH3) emissions shall not exceed 41.6 tons per year
	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)	formaldehyde emissions shall not exceed 1.096 tons per year
		sulfuric acid mist emissions shall not exceed

0.53 tons per year

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

operational restriction, see II. 1.

See section A.2.b below.

See section A.2.a below.

See section A.2.a below.

See section A.2.a below.

The tons per rolling 12-month period shall not exceed :
NOx - 37.7
SO_2 - 5.30
PM - 27.0
CO - 195.4
VOC - 16.3

The tons per rolling 12-month period shall not exceed :
formaldehyde - 1.096

See section A.I.2.c below.

See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the

limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P007) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*

Emissions Unit ID: P007

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric

load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P007 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P007, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO

monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

Emissions Unit ID: P007

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis,

emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is

resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the

date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the

analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing

procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing

16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing

41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Emissions Unit ID: P007

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P007 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

Emissions Unit ID: P007

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #7 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #8 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

				40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
				OAC rule 3745-31-05(D)
				40 CFR Part 75 OAC rule 3745-103
OAC (A)(3)	Rule	3745-31-05		
OAC (A)(3)	Rule	3745-31-05	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
PM emissions shall not exceed 12.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
		PM emissions shall not exceed 27.0 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
		carbon monoxide (CO) emissions shall not exceed 195.4 tons per year

volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3	
The tons per rolling 12-month period shall not	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P008) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior

to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895

VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P008 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P008, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

Emissions Unit ID: P008

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the

end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing

16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

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hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing

41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

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Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P008 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #8 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #9 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

				40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
				OAC rule 3745-31-05(D)
				40 CFR Part 75 OAC rule 3745-103
OAC (A)(3)	Rule	3745-31-05		
OAC (A)(3)	Rule	3745-31-05	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Kb.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	STARTUP AND SHUTDOWN EMISSIONS (also see A.II.3.)
EMISSION LIMITS WITHOUT DUCT BURNER FIRING	EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
PM emissions shall not exceed 12.0 lbs/hr	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	TOTAL TONS PER YEAR (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
		sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
		carbon monoxide (CO) emissions shall not exceed 195.4 tons per year

volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3	
The tons per rolling 12-month period shall not	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The permit to install for this emissions unit (P009) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior

to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

5. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895

VOC	14
Formaldehyde	0.87

6. The maximum cumulative fuel heat input for emissions unit P009 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P009, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

7. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

11. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

12. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

Emissions Unit ID: P009

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the

end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.3. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing

16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.3.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing

41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Emissions Unit ID: P009

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P009 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #9 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None