

1.2.1 Acid Rain Program

This permit is issued based on the tire fuel fired boiler being an affected source for purposes of the federal Acid Rain program, pursuant to Title IV of the federal Clean Air Act. This is because the boiler is a new electrical generating unit for purposes of this program as it burns natural gas, a fossil fuel, as well tire fuel, to generate electricity. In addition, the facility cannot meet the exemption for a new facility because the sulfur content of the tire fuel exceeds 0.05 percent by weight, on an annual average. Accordingly, the Permittee is subject to certain control requirements and emissions monitoring requirements pursuant to 40 CFR Parts 72, 73, and 75. (See Attachment 2 for a copy of the current Acid rain permit for the boiler)

1.2.2 Fugitive Dust Program

The Permittee shall operate the facility in accordance with written Housekeeping Procedures for the facility to address nuisance dust, including a Fugitive Dust Operating Program in accordance with 35 IAC 212.309. These Housekeeping Procedures shall be maintained and updated by the Permittee at least annually.

1.2.3 Episode Action Plan

As an electric power generating station, the Permittee shall comply with the applicable requirements of 35 IAC 244.143 and 244.144, with respect to Episode Action Plans.

1.3 Nonapplicable Regulations

1.3.1 Prevention of Significant Deterioration (PSD) and Major Stationary Sources Construction and Modification (MSSCAM)

- a. This construction permit for the facility is based on the facility not being a major source for purposes of 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM). The limits in this permit are intended to maintain this status for the facility, thereby ensuring that this project does not constitute a major modification pursuant to these rules.
- b. For this purpose, this permit addresses this project as a possible modification of an existing source accompanying the resumption of operation. This facility is not considered a new source because the facility was not permanently shut down. In particular, reasonable efforts were made when operations were interrupted to minimize effort and cost of resuming operation of the facility, including maintaining equipment and preserving the air pollution control permit. These efforts support the intent of the Permittee and its predecessor, New Heights, to resume operation of this facility.

1.3.2 National Emission Standards for Hazardous Air Pollutants

This permit is issued based on the source not being a major source of emissions of hazardous air pollutant (HAPs), therefore the boiler will not be subject to the control requirements of the National

Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. For the purpose of assuring that the facility is not a major source of HAPs, limits on emissions of Hydrogen Chloride, Formaldehyde, and Arsenic are established in Conditions 1.5.1 and 2.5.1.

1.3.3 Emissions Reduction Market System (ERMS)

This permit is issued based on the facility not being subject to Illinois' Emissions Reduction Market System, 35 IAC Part 205, because the seasonal emissions of volatile organic material from the plant are less than 15 tons.

1.3.4 NOx Trading Program

This permit is issued based on the facility not being subject to Illinois NOx Trading Program, 35 IAC 217, Subparts U and W, because the heat input capacity of the boiler is less than 250 million Btu/hr and the associated electrical generator has a capacity that is less than 25 MW.

1.4 Source-Wide Operational Limitations

1.4.1 Tire Fuel Throughput

- a. i. The amount of tire fuel charged to the boiler shall not exceed 75,000 tons/year.
- ii. Compliance with this annual limit and other annual limits in this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.4.2 Storage of Tires

- a. The amount of tire fuel stored at the facility shall not exceed 20,000 tons.

1.5 Source-Wide Emission Limitations

1.5.1 Emissions of Regulated Pollutants

- a. i. The facility's emissions shall not exceed the limitations in Attachment 1.
- ii. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.6 Effective Date of Compliance Procedures

- a. The Permittee shall continue to submit all required reports while the facility is idle or activity for the restart is underway. If there has been no operation or emissions as related to a particular report, this shall be stated in the report.
- b. i. The Permittee shall implement the inspections, testing,

monitoring and recordkeeping in this permit for individual emission units as the units resume operation and generate emissions or the potential for emissions is present.

- ii. As part of the resumption of the operation, as well as certifying new monitoring devices, the Permittee shall recertify the performance of the required emission monitors and confirm the performance of required parametric monitors.

1.7 General Recordkeeping Requirements

1.7.1 Operational and Emission Records

- a. The Permittee shall maintain the following operational records:
 - i. Tire fuel charged to the boiler (tons, month and tons/year, running 12-month total).
 - ii. Amount of tire fuel stored at the facility (tons) on a monthly basis.
- b. The Permittee shall maintain records of the total emissions of the facility (tons/month and tons/year, running 12-month total) for PM, VOM, SO₂, NO_x, CO, individual HAP and combined HAP from the emission units or categories of units covered by Section 2 of this permit (Unit Specific Conditions) and addressed in Attachment 1.

1.8 General Reporting Requirements

1.8.1 General Source-Wide Reporting Requirements

- a. The Permittee shall notify the Illinois EPA of deviations with the permit requirements of Section 1 of this permit within 30 days of the event. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.
- b. The Permittee shall notify the Illinois EPA when the facility first resumes firing of tire fuel in the boiler.

1.8.2 Annual Emission Report

On an annual basis, the Permittee shall submit an Annual Emission Report to the Illinois EPA not later than May 1 of the following year each year, as required by 35 IAC Part 254. For this notwithstanding general requirements for submittal of reports, only a single copy of this report needs to be submitted to the Illinois EPA.

1.8.3 Annual Compliance Certification

Until a CAAPP Permit is issued for the facility, the terms and conditions of this construction permit shall be addressed in an annual compliance certification submitted by the Permittee by May 1 of each year for the prior calendar year, as if a CAAPP permit had been issued for the facility.

- 1.9 The Permittee may operate the source under this construction permit until such time as final action is taken on the CAAPP application for the source provided that the Permittee submits a complete supplement to the pending CAAPP application, which incorporates new requirements established by this permit within 270 days of resuming operations of the boiler.
- 1.10 This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state, and federal requirements.

2.0 UNIT SPECIFIC CONDITIONS

2.1 Tire Fuel Fired Boiler

2.1.1 Description

The boiler is designed to burn tire fuel to produce steam. The boiler is a "grate boiler," in which tire fuel is burned on a metal floor or grate in the bottom of the furnace section of the boiler. Fuel is added at one side of the grate, through four hoppers and associated feeders. The fuel burns as it moves across the grate. On the far side of the grate, the ash and other non-combustible material that remains falls off the grate into a hopper. The rate at which fuel is burned is controlled by the rate at which fuel is added to the grate, the speed at which the grate moves fuel across the bed, and the flow of primary combustion air, which is blown upward through openings in the grate. The grate has the ability to burn both whole tires and shredded tires. Natural gas is used as an auxiliary fuel for startup of the boiler, fired in separate burners located above the grate.

The air pollution control train for the boiler consists of a Selective Non-Catalytic Reduction (SNCR) system, a fabric filter or baghouse, and a lime scrubber with two demisting sections. These devices control the emissions of nitrogen oxides (NOx), particulate matter (PM), and sulfur dioxide (SO₂) and other acid gases from the boiler. The emissions of carbon monoxide (CO) and volatile organic material (VOM) are controlled by good combustion practices.

The boiler is subject to and must comply with Best Available Control Technology (BACT) for control of emissions pursuant to Sections 55(h) and 9.4 of the Environmental Protection Act. BACT for the boiler was established by the Illinois EPA prior to construction of the boiler, during the processing of Construction Permit 99050003. BACT was determined to require good combustion practices and the use of air pollution control equipment including a selective non-catalytic reduction system, fabric filter, and lime scrubber to comply with the requirements and limits that are included as Conditions 2.1.4-1 and 2.1.4-2 of this permit.

As part of resumption of operation of the facility, the Permittee is making changes to the conveyor systems that supply tire fuel to the boiler, so that whole tires, as well as shredded tires, can be delivered to the fuel feed hoppers. The Permittee is making this change so that the boiler can operate independent of the tire shredding operation.

2.1.2 Listing of Emission Units and Air Pollution Control Equipment

Boiler	Description	Emission Control
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		Equipment
1	Tire Fuel Fired Boiler Nominal capacity 240 mmBtu/hr	SNCR, Fabric Filter, and Lime Scrubber

2.1.3 Applicable Regulations

- a. The boiler is subject to 35 IAC 212.123(a), which provides that no person shall cause or allow the emission of smoke or other particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit, except as provided in 35 IAC 212.123(b).

2.1.4-1 Control Technology Determination - Operating Requirements

- a. The boiler shall not be operated at a load greater than the load measured as steam flow, which is the maximum 1-hour load, achieved during emissions testing.
- b.
 - i. The boiler shall be maintained and operated to maintain a minimum combustion temperature of 1800 °F on a 15 minute block average, while burning tire fuel, except during startup and shutdown as addressed in Condition 2.1.6-2, below.
 - ii. During the first year after resuming operation of the boiler, compliance with this temperature limit shall be determined as a 30-minute block average

2.1.4-2 Control Technology Determination - Emission Standards

- a. The boiler shall comply with the following emission limitations while burning tire fuel with compliance determined by emission testing in accordance with Condition 2.1.7.
 - i. Particulate matter emissions shall not exceed 0.0275 pounds per million Btu or 0.50 percent of the uncontrolled emissions (minimum fabric filter removal efficiency of 99.5%), whichever is greater, for filterable particulate matter as would be measured by USEPA Method 5. Compliance with this emission limit shall be determined in the ductwork between the filter outlet and the scrubber or in the stack.
 - ii. Hydrogen chloride (HCl) emissions shall not exceed 0.0055 lbs per million Btu or 9.0 percent of the uncontrolled emissions (minimum scrubber HCl removal efficiency of 91%), whichever is greater.
 - iii. Total hydrocarbon emissions shall not exceed 0.020 lbs per million Btu.
 - iv. Zinc emissions shall not exceed 0.0050 lbs per million Btu.
- b. The boiler shall comply with the following emission standards except during startup and shutdown as addressed in Condition 2.1.6-2 or if only firing natural gas with compliance determined by continuous emissions monitoring in accordance with Condition 2.1.8.

- i. Sulfur dioxide (SO₂) emissions on a 24-hour daily block average shall not exceed 0.100 lbs per million Btu or 4.6 percent of the uncontrolled emissions (minimum scrubber SO₂ removal efficiency of 95.4%), whichever is greater.
- ii. Carbon monoxide (CO) emissions on a 24-hour daily block average shall not exceed 0.100 lbs per million Btu.
- iii. Nitrogen oxide (NO_x) emissions on a 24-hour daily block average shall not exceed 0.0925 lbs per million Btu or 60 percent of the uncontrolled emissions (minimum Selective Non-Catalytic Reduction system efficiency of at least 40%), whichever is greater.
- iv. Opacity on a 6-minute block average shall not exceed 10 percent. Visual observation of stack opacity in accordance with USEPA Method 9 shall only be used to determine compliance with this limit when a steam plume from the scrubber does not interfere with such observation.

2.1.5 Applicable Federal Emission Standards and Control Requirements

- a. This boiler is subject to the New Source Performance Standards (NSPS) for Industrial-Commercial-Industrial Steam Generating Units, 40 CFR 60, Subpart Db.

Note: The boiler would be subject to the NSPS 40 CFR 60, Subpart D, the NSPS for Fossil-Fuel Fired Steam Generators, if it had the capability to fire natural gas (fossil fuel) at a heat input rate of 250 million Btu per hour or more.

- b. Pursuant to the NSPS, the Permittee shall at all times operate and maintain the boiler, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to 40 CFR 60.11(d).

Note: The applicable standard of the NSPS, 20 percent opacity pursuant to 40 CFR 60.46b(f), is less stringent than the opacity standard in Condition 2.1.4-2(b) (iv).

2.1.6-1 Limitations on Emissions

- a. i. Emissions from the boiler shall not exceed the following limits. These limits have been established based upon maximum operation on an annual basis at a 93 percent capacity factor and either the BACT performance limits in Condition 2.1.4-2 or data derived from stack test results.

<u>Contaminant</u>	<u>(Lbs/Hr)</u>	<u>(Tons/Yr)</u>
Particulate Matter (PM) - Baghouse ¹	6.60	26.9
- Stack ²	15.0	61.1
Particulate Matter 10 (PM10) ₃	15.0	61.1

Sulfur Dioxide (SO ₂)	24.0	97.8
Hydrogen Chloride (HCl)	1.32	5.4
Carbon Monoxide (CO)	24.0	97.8
Nitrogen Oxides (NO _x)	22.2	90.4
Total Hydrocarbons (THC) ⁴	4.80	19.6
Formaldehyde	0.25	1.02
Arsenic	0.25	1.02
Zinc	1.20	4.9

Notes:

1. The "baghouse limit" applies in the ductwork of the boiler after the baghouse. However, compliance with this limit may be demonstrated at the stack, e.g., by testing PM emissions at the stack in accordance with Condition 2.1.7.
 2. The stack limit applies at the stack, after both the baghouse and scrubber. Compliance with this limit must be separately demonstrated if compliance with the baghouse limit is being shown in the ductwork after the baghouse.
 3. This limit addresses both filterable PM₁₀, as would be measured by Methods 5, 201 or 201A, and condensable particulate matter, as would be measured by Method 202 or other similar method.
 4. This limit on total hydrocarbons (THC) also restricts emissions of volatile organic material (VOM), as VOM is a subset of THC, which also includes methane, ethane and other organic compounds that are not considered VOM.
- ii. For NO_x and CO emissions, notwithstanding the above, during startup and shutdown of the boiler, which is addressed by Condition 2.1.6-2, an hourly limit shall not apply. For NO_x and CO, the annual limit, includes emissions during startup, shutdown and malfunction or breakdown, like the annual limits for other pollutants, addresses all emissions from the boiler.
 - iii. Compliance with the hourly emission limits for CO, NO_x, and SO₂ shall be determined on a 24 hour block average, with compliance normally determined based upon the concentrations measured by the Continuous Emission Monitors and the measured stack gas flow rate required by Condition 2.1.8. Compliance with the particulate matter, hydrogen chloride, and total hydrocarbon emission limits shall be determined upon a three hour average consistent with the format of the required performance emission tests.
- b. The ammonia emissions from the boiler (ammonia slip) determined at the stack shall not exceed 20 ppmv based on a 24-hour daily block average.

2.1.6-2 Operating Requirements

- a. The boiler is permitted to burn up to 240 million Btu per hour, higher heating value, of tire fuel and natural gas.
- b. The boiler shall be operated and maintained as follows to minimize emissions during periods of startup and shutdown. For purposes of this permit, startup is defined as setting the boiler in operation for any purpose, including transition from natural gas to tire fuel, provided that the period of time allowed from the first introduction of tire fuel to the boiler until stable operation with tire fuel at a normal steam flow rate is six hours. For purposes of this permit, shutdown is defined as the cessation of operation of the boiler, when the steam flow rate falls below a normal rate, provided that the period of time allowed from beginning shutdown to discontinuation of feeding tire fuel is two hours.
 - i. The startup of the boiler shall be initiated with the natural gas burners. Tire fuel shall only be introduced when stable operating temperature is achieved with natural gas. All reasonable measures shall be taken to expeditiously achieve stable operation with tire fuel, once it is introduced.
 - ii. Prior to firing tire fuel, all combustion air controls and equipment shall be operational, all necessary tire fuel feeding equipment shall be operational, the inventory of scrubbant shall be adequate, and the continuous monitoring systems and data logging system required by Condition 2.1.8 shall be in service and recording data.
 - iii. The boiler shall be operated during periods of startup and shutdown to maintain process conditions within limits established by the equipment manufacturers or as prescribed in the Standard Operating Procedures prepared pursuant to Condition 2.1.6-1(c).
 - iv. The boiler shall be fired only on natural gas until the combustion gas temperature reaches at least 1600°F.
- c. The boiler and associated control system shall be operated in accordance with written Standard Operation Procedures. These Standard Operating Procedures shall be maintained and updated by the Permittee at least annually and shall include those procedures necessary for operation of the boiler facility in compliance with applicable requirements, including:
 - i. Appropriate training for all employees, including training for all operators and shift supervisors.
 - ii. A written Preventative Maintenance Plan.
- d. The Permittee shall install, operate and maintain an Automatic Tire Fuel Feed Cutoff System that will control the feed of fuel into the boiler. Tire fuel shall only be fed to the boiler while it is operating under the following conditions:
 - i. The boiler combustion temperature is at least 1,800 °F on a one-hour (60-minute) block average.

- ii. The scrubbant flow is at least 2,800 gpm on a 15-minute block average:
- iii. The baghouse pressure drop is no more than 14 inches water column on a one-hour (60-minute) block average.
- iv. The monitored stack gas parameters are as follows, on a one-hour rolling average:
 - A. Oxygen concentration at least 3.0 percent.
 - B. Carbon monoxide concentration no more than 200 ppm.
 - C. Sulfur dioxide concentration no more than 80 ppm.
- v. The monitored stack opacity is no more than 20 percent, 6-minute block average.

Note: The limits in these conditions were initially set based upon boiler design. The limits for the boiler combustion temperature, scrubbant flow, and oxygen concentration were adjusted by the Illinois EPA, at the request of the Permittee, based upon actual operating experience with the boiler. These limits may be adjusted further based on future operating data.

2.1.7 Requirements for Emission Testing

- a.
 - i. The Permittee shall have testing of the emissions of the boiler conducted within 180 days of resumption of operation of the boiler or 60 days after initially firing the boiler with whole tires.
 - ii. Within 60 days of a subsequent written request from the Illinois EPA, for the pollutants specified in the request.
 - iii. The Illinois EPA may provide additional time for performance of this testing upon request from the Permittee, which shows that it is not feasible to perform representative testing within the specified time period.
- b. The emissions of the following pollutants from the boiler, shall be measured by an approved testing service at the Permittee's expense during conditions that are representative of maximum emissions.
 - i. Particulate matter;
 - ii. Carbon monoxide;
 - iii. Nitrogen oxides;
 - iv. Sulfur dioxide;

- v. Hydrogen chloride;
 - vi. Total hydrocarbon;
 - vii. Formaldehyde
 - viii. Polycyclic aromatic hydrocarbons (PAH); and
 - ix. Metals, including arsenic, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel and zinc
- c.
- i. This testing shall be conducted in accordance with general testing methods identified in Condition 3.1 (a).
 - ii. The Permittee shall provide notification for testing in accordance with Conditions 3.1 (b) and (c).
 - iii. The Permittee shall submit the Final report in accordance with Condition 3.1 (d) and shall include the information specified in Condition 2.1.7 and the following information:
 - A. Process information for the boiler, i.e., fuel consumption, heat input rate, steam production, and electrical output.
 - B. Control equipment information, i.e., equipment operating parameters during testing.
 - C. Heat content of the tire fuel fired during emission testing (Btu per lb), based on representative sampling and analysis of the fuel supply to the boiler.

2.1.8 Requirements for Monitoring of Emissions and Operational Parameters

- a. The Permittee shall operate and maintain continuous emissions monitors and continuous operational monitors for the boiler for emissions and operating parameters:
- i. CO concentration (ppmv).
 - ii. NO_x concentration (NO_x ppmv, as NO₂).
 - iii. SO₂ concentration (ppmv).
 - iv. Oxygen concentration (%).
 - v. Opacity (%).
 - vi. Stack gas flow (acfm).
 - vii. Stack temperature (°F).
 - viii. Ammonia concentration (ppmv).
- b. The Permittee shall operate and maintain continuous monitors

for the boiler for the following operating parameters:

- i. Tire feed rate (lbs/hr, or equivalent).
 - ii. Boiler combustion temperature (°F).
 - iii. Steam flow (lbs/hr).
- c. The Permittee shall operate and maintain continuous monitors for the control devices associated with the boiler for the following operating parameters:
- i. SNCR reagent injection rate (gals/hr).
 - ii. Fabric filter pressure drop (in. water column).
 - iii. Fabric filter inlet temperature (°F).
 - iv. Lime scrubber pressure drop (in. water column).
 - v. Lime scrubber inlet temperature (°F).
 - vi. Scrubbant flow (gals/min).
- d. The Permittee shall operate and maintain a computer data logging and management system for data collected by the required continuous monitors, which system shall perform the following:
- i. The system shall record monitored data on at least a minute by minute basis for the parameters monitored pursuant to Conditions 2.1.8(a), (b), and (c).
 - ii. The system shall calculate and record hourly averages (or, as appropriate, 15 minute or 30 minute block averages) of the above data for the different parameters.
 - iii. The system shall calculate the hourly, daily and daily average emissions of NO_x, SO₂, and CO in pounds, using the monitored concentrations, stack temperature and stack flow, and record the result of those calculations.
- e. The Permittee shall operate, maintain and calibrate the required continuous monitors in accordance with written Continuous Monitoring Procedures, which the Permittee shall review at least annually and update as necessary. The continuous monitors shall be operated in a manner consistent with good air pollution control practice for emissions monitoring. Additional standards for data collection may be established in the Clean Air Act Permit Program (CAAPP) permit for the facility.
- f. The Permittee shall maintain records of monitoring activities, including accuracy determinations, calibration drift test and equipment maintenance and repair.

2.1.9 Recordkeeping Requirements

- a. The Permittee shall keep the following operating records for the boiler on a monthly basis:
 - i. Amount of whole tire fuel and shredded tire fuel burned.
 - ii. Amount of natural gas burned (million scf).
 - iii. Amounts of scrubbant received, used, and in storage.
- b. The Permittee shall keep the following records with respect to startup and shutdown of the boiler or periods of time when the boiler only fires natural gas:
 - i. A log or other record that identifies each startup and shutdown of the boiler, and provides the date, circumstances, time startup or shutdown initiated, time tire fuel introduced or discontinued, time stable operation on shutdown achieved, steam flow rates, significant events or occurrences during the startup or shutdown, and other information to address the requirements of Condition 2.1.6-2.
 - ii. Records identifying each period of time during startups and shutdowns for which monitored emission data was excluded from the determination of emissions for purposes of Condition 2.1.6-2, with supporting data and calculations documenting how emissions were determined for purposes of Condition 2.1.6-2.
- c. The Permittee shall keep records for periods of time when the boiler did not comply with applicable emission limits or operating requirements.
 - i. These records shall include the date, duration, and description of the incident.
 - ii. These records shall also include the likely cause for the incident and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent reoccurrence.

2.1.10 Notification and Recordkeeping Requirements

- a. The Permittee shall fulfill applicable reporting requirements of the NSPS (40 CFR 60.7 and 60.49b(b)) for the boiler.
- b. The Permittee shall report the following information to the Illinois EPA on a quarterly basis:
 - i. Tire fuel feed to the boiler, in tons, on a monthly basis.
 - ii. Total monthly emissions of NO_x, SO₂, and CO (tons/month), determined from information in the Data Logger.
 - iii. A summary of automatic waste feed cutoffs, if any, with the cause of the feed cutoffs and their duration, as well as corrective actions taken to minimize or eliminate chronic waste feed cutoff.

- iv. A summary of any exceedance which shall include the date, time, and duration of the event, a description of the event, a copy of the applicable monitoring data or record, the corrective action taken, and the reason for or cause of the exceedances, if known.
- c. The Permittee shall promptly notify the Illinois EPA if it determines that it must install new boiler grates or make additional alterations to the tire fuel feed systems. This notification shall include a description of the changes, the reasons for the changes, and the planned schedule for the changes.

2.1.11 Additional Requirements for Resumption of operation of the Boiler

- a. i. The boiler may be operated under this Construction Permit for purposes of equipment shakedown, operational testing, emissions testing and reporting, and routine operation pending Illinois EPA action on an application for operating permit, as further specified below. Equipment shall not resume operation until all the following have been performed:
 - A. All construction activity necessary for resumption of operation is complete
 - B. A thorough inspection of all control equipment has been performed and any maintenance and repairs have been performed and detailed as required.
 - C. All reasonable measures short of actual operation have been taken to verify proper operation.
- ii. The Permittee shall notify the Illinois EPA of the anticipated date of initially resuming firing of natural gas in the boiler for the purpose of generating steam, i.e., for purposes other than curing refractory or cleaning boiler tubes, at least 15 days prior to such date and shall further notify the Illinois EPA of the actual date of such initial firing of natural gas within 5 days after such date.
- b. i. For purposes of shakedown and testing of the boiler while firing tire fuel, the boiler may be fired with tire fuel for a Shakedown Period pursuant Condition 2.1.7(a)(i), during which period the initial emissions testing shall also be performed. This shakedown period shall begin on the day that tire waste fuel is first fired in the boiler. During this Shakedown Period, the boiler and associated control devices shall be operated in accordance with the Shakedown Plan submitted to the Illinois EPA and any conditions of the Illinois EPA's approval of the plan. The Illinois EPA may provide additional time for shakedown upon request from the Permittee, which shows that it is not feasible to complete shakedown within the specified time period.
- ii. The Permittee shall submit three copies of the following

documents at least 30 days prior to resumption of firing of tire fuel in the boiler, for Illinois EPA review and approval. As part of the approval of the Shakedown Plan, the Illinois EPA may allow emissions higher than the short-term limits in Condition 2.1.6-2 during the Shakedown Period, provided that the Permittee demonstrates that such operation is needed for the orderly and effective shakedown of the boiler (e.g., shakedown of the nitrogen oxide control system cannot be initiated until consistent boiler operation is achieved) and reasonable measures will be taken to minimize the emissions associated with such operation (e.g., the boiler will be operating at a reduced firing rate).

- A. A Shakedown Plan that describes the anticipated sequence of steps from initial firing of the boiler with tire fuel to emission testing, with description of step; purpose; expected duration; expected range of fuel firing rate(s); planned status of operating instrumentation, monitoring system, and data logging system, and control devices; special startup procedures, if any; alarm levels for operating parameters and possible corrective actions; criteria for terminating tire fuel feed; and special shutdown procedures, if any.
 - B. Emission Testing Protocol, that includes identification of testing firm(s), test methods, sample calculations and data forms, and documentation for sampling locations.
- iii. If the Permittee elects to revise or replace the following documents, the Permittee shall submit three copies of the changes to the following documents, or new version of the documents, to the Illinois EPA for review and comment, at least 21 days prior to resuming firing of tire fuel in the boiler:
- A. Operator Training Program.
 - B. Boiler Operating Procedures, which include procedures for startup, normal operation, normal shutdowns and other shutdowns.
 - C. Boiler Preventative Maintenance Procedures.
 - D. Continuous Emission Monitoring Procedures and Monitor and Instrumentation Certification program which details how the instruments will be demonstrated to be accurate and how routine calibration will be completed.
 - E. Specifications for the Data Logging and Management System. (See also Condition 2.1.8(d))
- iv. A. The Permittee shall notify the Illinois EPA of the anticipated date of resuming firing of tire fuel in the boiler at least 15 days but not more than 30 days prior to such date and shall further

notify the Illinois EPA of the anticipated date of initial firing of tire fuel in the boiler 10 days prior to such date. This further notification shall confirm that the continuous emission monitoring systems required by Condition 2.1.8 and the data logging systems required by Condition 2.1.8 are operational.

B. The Permittee shall provide confirmation of the actual date of resumption firing of tire fuel in the boiler on the day before such date. This confirmation shall be given by telephone to the Illinois EPA's Regional Office.

v. During the Shakedown Period, the Permittee shall submit a biweekly report to the Illinois EPA summarizing operation of the boiler during the preceding two weeks, including the periods of time during which tire fuels were burned, type and amount of such fuels burned, status of control devices and monitoring systems while burning such fuels; progress of shakedown; and significant events, if any. This report shall be submitted within 4 days of the end of the bi-weekly period.

vi. Following successful completion of shakedown and performance of required emission testing, the Permittee may continue to operate the boiler as provided by Condition 1.9.

d. This condition supersedes Standard Condition 6(b).

2.2 Storage and Handling of Tire Fuel

2.2.1 Description

The facility handles tire fuel for use in the boiler. Both whole and shredded tire fuel will be handled at the facility. Tires are typically received at the facility whole. Some tires will be shredded. Tire shredding is done in one or both of the shredders based on size of chips the facility will be using in the boiler. Emissions of particulate matter occurs during the tire shredding process are minimized by enclosure and water sprays. Emissions from other handling operations are minimized by the nature of tires, enclosure, and dust control measures.

Whole tire must be handled in accordance with the Board rules for Management of Waste Tires, which are administered by the Bureau of Land. This permit imposes similar requirements on the handling of shredded tires until such time as the Board's rules are revised to address shredded tires.

2.2.2 Listing of Emission Units and Air Pollution Control Equipment

Description	Emission Control
Primary Tire Shredder (12-inch chips)	Enclosure
Secondary Tire Shredder (2 inch chips)	Enclosure

Whole Tire Conveyors	Enclosure
Whole Tire Storage	Enclosure
Shredded Tire Conveyors	Enclosure
Shredded Tire Storage	Enclosure
Reversing Crossfeed Conveyor	Enclosure

2.2.3 Applicable Regulations

- a. The term "affected unit" for the purpose of these unit-specific conditions, are the emission units described in Conditions 2.2.1 and 2.2.2.
- b. The affected unit is subject to 35 IAC 212.321(b) (1), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). [35 IAC 212.321(a)]

2.4.4 Non-Applicability of Regulations of Concern

None

2.2.5-1 Operating Limitations

- a. Whole tire fuel shall only be stored in transport vehicles or inside buildings.
- b.
 - i. Shredded tire fuel, i.e., waste or used tires that have been shredded, shall only be stored inside buildings and on the existing outdoor concrete fuel storage pad (pad), which is approximately 100 feet wide and 200 feet long.
 - ii. The Permittee shall not store more than 500,000 passenger tire equivalents (6,250 tons) of shredded tire fuel on the pad at any time.

2.2.5-2 Workplace Requirements for Storage of Shredded Tires

- a. The Permittee shall comply with the following measures for storage of shredded tire fuel unless the Board's regulations for Management of Waste Tires, 35 IAC Part 848, are revised to address the storage of such material and impose comparable measures to minimize the risk to the environment from the storage of this material, in which case the applicable requirements of the Board's regulations shall supersede the following measures.
 - i. The Permittee shall not pile shredded tire fuel on the pad to a height more than 20 feet.
 - ii. Around the perimeter of the pad, the Permittee shall maintain:
 - A. An open area that is at least 25 feet wide, to

allow unobstructed movement of personnel and equipment for visual inspection of the pile, housekeeping activities and firefighting operations;

- B. A clear area that is at least 50 feet wide that is generally free of vegetation and other combustible material; and
 - C. A protective area that is at least 250 feet wide within which open flames and other potential ignition sources, including cutting or welding, are not allowed except inside of a building or with comparable temporary enclosure and fire protection measures.
- iii. The Permittee shall maintain a fence, which is not less than 6 feet in height, in good repair around the pad area and at all times control access to the area by an attendant, locked gates, television monitors, controlled roadway access and other similar techniques. Alternatively, the Permittee shall take such actions for the facility as a whole or some portion of the facility so as to preclude unauthorized access to the pad area.
 - iv. The Permittee shall maintain the level of the pad at no more than 1.0 percent slope or the Permittee shall install earthen berms or other structures at the edge of the pad capable of containing runoff associated with a fire.
- b. The Permittee shall secure buildings used to store tire fuel to prevent unauthorized access or the Permittee shall maintain the area surrounding such buildings to prevent unauthorized access in accordance with Condition 2.2.5-2(a)(iii).
 - c. The Permittee shall comply with the following provisions with respect to storage planning for shredded tires, unless storage of shredded tire fuel in buildings is also fully addressed pursuant to the tire storage planning conducted by the Permittee for whole waste tires pursuant to 35 IAC 848.204(c), as confirmed by the Permittee in writing to the Illinois EPA.
 - i. The Permittee shall develop and implement a storage plan prepared in consultation with local fire departments that may be called upon in the event of fires involving tire fuel and the state fire marshal. This plan shall include, but not be limited to, the storage arrangements for tire fuel; aisle space if necessary; clearance distances between tire fuel and the building ceilings, heaters and furnaces, and sprinkler deflectors; location of extinguishers and hose stations; and access for fire fighting personnel.
 - ii. The Permittee shall maintain a copy of this storage plan and all revisions to the plan at the site and submit copies to the local fire departments and the Illinois EPA.

- iii. Areas in buildings used for storage of shredded tire fuel shall be maintained to comply with the applicable standards of the National Fire Protection Association, e.g., Standard 231D for Storage of Rubber Tires.
- d. The Permittee shall comply with the following provisions with respect to contingency planning, unless fires involving shredded tire fuel are also fully addressed pursuant to the contingency planning conducted by the Permittee for storage of whole waste tires pursuant to 35 IAC 848.202(c)(1) and 848.203, as confirmed by the Permittee in writing to the Illinois EPA.
 - i. The Permittee shall prepare and maintain a separate contingency plan designed to minimize the hazards to human health and the environment that could result from fires involving such tire fuel, which describes the actions that site personnel must take in response to any such fires.
 - ii. The Permittee shall maintain a copy of this contingency plan and all revisions to the plan at the site and submit copies to the local fire departments, police departments, the Illinois EPA, and local and state emergency response teams that may be called upon in the event of fires involving tire fuel.
 - iii. The Permittee shall at all times have at least one employee, either at the facility or on call, with responsibility for coordinating emergency response measures, which individuals shall be listed in this contingency plan. These individuals must be familiar with all aspects of this contingency plan, all operations and activities at the site, the location of all records within the site and site layout and have the authority to commit the resources needed to carry out the contingency plan.
 - iv. The Permittee shall immediately carry out the relevant portions of this contingency plan in response to a fire involving shredded tire fuel.
 - v. Within 30 days of any fire involving shredded tire fuel, the Permittee must review and appropriately amend this contingency plan to address the experience gained during such incident.
- e. The Permittee shall make submittals of storage plans and contingency plans, as may be required by this condition, to the Illinois EPA, Bureau of Land. At the same time, the Permittee shall provide a copy of the transmittal letter accompanying these submittals to the Illinois EPA, Bureau of Air.
- f. The above provisions do not relieve the Permittee of the responsibility to comply with all applicable requirements of 35 IAC Part 848, Management of Used and Waste Tires.

2.2.6 Emission Limitations

- a. This permit is issued based on minimal emissions of particulate matter (PM) from the affected units. For this purpose, total emissions not exceed 1.0 lb/hr and 4.40 Ton/yr.

2.2.7 Emission Testing

None

2.2.8 Monitoring

None

2.2.9 Recordkeeping Requirements

- a. The Permittee shall keep the following records on at least a monthly basis for tire fuel (tons), with supporting data:
 - i. Amounts of tire fuel received.
 - ii. Amount of tire fuel shredded.
 - iii. Amount of whole tire and shredded tire fuel stored at the facility.
 - iv. Amount of shredded tire fuel stored on the pad.
- b. The Permittee shall a log or other records that document continued fulfillment of the requirements of Condition 2.2.5-1, if applicable.

2.2.10 Notification and Reporting Requirements

- a. The Permittee shall report the following information to the Illinois EPA on a quarterly basis:
 - i. A detailed description of any fires involving tire fuel.

2.3 Bulk Material Handling Equipment

2.3.1 Description

The Permittee operates equipment to handle various bulk materials needed for the operation of the boiler, including lime and soda ash. Associated particulate matter (PM) emissions are controlled by various control measures including wetting, covers, enclosures and dust collection devices.

2.3.2 List of Emission Units and Air Pollution Control Equipment

Unit	Description	Control Equipment
Pebble Lime System	Receiving, Transfer System and Silo	Baghouse
Soda Ash System	Receiving, Transfer System and Silo	Baghouse
Lime System	Receiving, Transfer System and Silo	Baghouse

Boiler Ash System	Transfer, Storage and Loadout	Enclosure
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2.3.3 Applicability Provisions

- a. An "affected unit" for the purpose of these unit-specific conditions, is an individual emission unit as described in Conditions 2.3.1 and 2.3.2.
- b. The opacity of the emissions from the affected units shall not exceed 30 percent opacity, pursuant to 35 IAC 212.123.
- c. The affected units shall comply with 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar new process emission units at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).

2.3.4 Non-Applicability of Regulations of Concern

None

2.3.5 Work Practices, Operational and Production Limits

- a. The Permittee shall implement and maintain control measures for the affected units, including enclosure and filtration-type dust collection devices, which minimize visible emissions of particulate matter.
- b. Visible emissions of boiler ash to the atmosphere from the ash conveying system (including conveyor transfer points) shall not exceed more than 9 minutes in any 3-hour period, except during maintenance and repair when a system is not in operation.

2.3.6 Emission Limitations

- a. This permit is issued based on minimal emissions of particulate matter (PM) from the affected units. For this purpose, total emissions not exceed 1.2 lb/hr and 5.50 Ton/yr.

2.3.7 Testing Requirements

- a.
 - i. The Permittee shall have the opacity of the emissions from the affected unit(s) during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Test Method 9, within 45 days of a written request by the Illinois EPA, such testing shall be conducted for specific affected process(es) within 45 calendar days of the request or on the date agreed upon by the Illinois EPA, whichever is later.
 - ii. A. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of

these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).

- B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- iii. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- iv. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
 - A. Date and time of testing.
 - B. Name and employer of qualified observer.
 - C. Copy of current certification.
 - D. Description of observation condition, including recent weather.
 - E. Description of the operating conditions of the affected units.
 - F. Raw data.
 - G. Opacity determinations.
 - H. Conclusions.
- b. The Permittee shall have the particulate matter emissions at the stacks or vents of affected units during representative operating conditions measured in accordance with Condition 3.1 within 90 days of a written request from the Illinois EPA.
- c. The Permittee shall conduct observations for visible emissions from ash conveying systems in accordance with USEPA Method 22 under representative operating conditions within 10 days of a written request from the Illinois EPA. The report for such observations, pursuant to an Illinois EPA request, shall be submitted to the Illinois EPA within 5 days of conducting observations.

2.3.8 Inspection Requirements

- a. The Permittee shall perform inspections of the affected units on at least a weekly basis, including associated control measures, while the affected units are in use, to confirm compliance with the requirements of Condition 2.4.5(a).
- b. The Permittee shall perform detailed inspections of the dust collection equipment for affected units at least every 12 months while the units are out of service, with an initial inspection performed before any maintenance and repair

activities are conducted during the period the process is out of service and a follow-up inspection performed after any such activities are completed.

2.3.9 Recordkeeping Requirements

- a. The Permittee shall keep the following file(s) and log(s):
 - i. File(s) containing the following information for the affected units, with supporting information, which information shall be kept up to date:
 - A. Information related to the dust collection equipment associated with the affected units, including the performance specifications for filter material and maximum design particulate matter emissions, gr/dscf.
 - B. The maximum operating capacity of each affected process (ton/hour).
 - ii. Maintenance and repair log(s) for the air pollution control equipment associated with the affected units, including dust suppressant application systems, which log(s) shall list the activities performed on each item of equipment or system, with date and description. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
- b.
 - i. The Permittee shall maintain a record, which shall be kept up to date, of the control measures currently being implemented for the affected units pursuant to Condition 2.3.5(a).
 - ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures are sufficient to assure compliance with Condition 2.3.3(c) at the maximum process weight rate at which each affected process can be operated (tons ash/hour), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as addressed by Condition 2.3.9(a) (i) (A), this demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.
- c. The Permittee shall maintain records of the following for the inspections required by Condition 2.3.8:
 - i. For the inspections required by Condition 2.3.8(a) for each affected process:
 - A. Date and time the inspection was performed and name(s) of inspection personnel.
 - B. The observed condition of the control measures for each affected unit, including the presence of any

visible emissions.

- C. A description of any maintenance or repair associated with established control measures that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
 - D. A summary of the observed implementation or status of control measures.
- ii. For the inspections required by Condition 2.3.8(b) for the dust collection equipment for affected units:
- A. Date and time the inspection was performed and name(s) of inspection personnel.
 - B. The observed condition of the equipment.
 - C. A summary of the maintenance and repair that is to be or was conducted on the equipment.
 - D. A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
 - E. A summary of the observed condition of the equipment as related to its ability to reliably and effectively control emissions.
- d. The Permittee shall maintain records of the following for each incident when any affected process operated without the established control measures:
- i. The date of the incident and identification of the affected unit(s) that were involved.
 - ii. A description of the incident, including the control measures that were not present or implemented; the established control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.
 - iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.
 - iv. The length of time after the incident was identified that the affected unit(s) were in place) and, if this time was more than one hour, an explanation why this time was not shorter, including a description of any

mitigation measures that were implemented during the incident.

- v. The estimated total duration of the incident, i.e., the total length of time that the affected unit(s) ran without established control measures and the estimated amount of material processed during the incident.
 - vi. A discussion of the probable cause of the incident and any preventative measures taken.
 - vii. A discussion whether any applicable emission standard, as listed in Condition 2.3.3, may have been violated during the incident, with an estimate of the amount of any excess PM emissions (lbs) and supporting explanation.
- e. The Permittee shall keep, records for all opacity measurements made in accordance with USEPA Method 9 for the affected units that it conducts or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 2.3.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.

2.3.10 Reporting Requirements

- a. The Permittee shall notify the Illinois EPA of deviations from permit requirements for affected units in 30 days. Such notifications shall include a description of each deviation and a discussion of the probable cause, any corrective actions taken, and any preventative measures taken.
- b.
 - i. The Permittee shall promptly notify the Illinois EPA of the results of the sampling and analysis conducted pursuant to 35 IAC Part 721, Identification and Listing of Hazardous Wastes, separately conducted for the bottom ash, fly ash, and scrubber residue from the boiler to determine whether any of these wastes qualify as a hazardous waste.
 - ii. If any of the wastes individually qualify as hazardous waste under applicable rules, this notification shall also include a detailed description of the Permittee's planned procedures to comply with 35 IAC Part 728, Land Disposal Restrictions.
 - iii. This notification shall be sent to the Illinois EPA, Bureau of Land, Land Permit Section, with a copy sent to the Illinois EPA, Bureau of Air.

2.4 Internal Combustion Engines

2.4.1 Description

These engines are used to power electrical generators that supply of back-up power for the facility. This power is needed for various on-site activities at the plant in the event of power disruption. The engines are fired with distillate fuel oil.

2.4.2 Listing of Emission Units and Air Pollution Control Equipment

Engine	Description	Emission Control
1	Internal Combustion Engine Nominal 1350 horsepower	None
2	Internal Combustion Engine Nominal 1350 horsepower	None

2.4.3 Applicable Regulations

- a. The "affected engines" for the purpose of these unit-specific conditions are the engines described in Conditions 2.4.1 and 2.4.2.
- b. The opacity of the exhaust from each affected engine shall not exceed 30 percent opacity, pursuant to 35 IAC 212.123.
- c.
 - i. The emissions of sulfur dioxide (SO₂) from each affected engine shall not exceed 0.3 lb/mmBtu pursuant to 214.161 and 214.304.
 - ii. The emissions SO₂ from each affected engine shall not exceed 2000 ppm.

2.4.4 Non-Applicability of Regulations of Concern

- a. The affected engines are not subject to the emission limits of 35 IAC 212.321 since a process weight rate cannot be defined, pursuant to 35 IAC 212.323.

2.4.5 Work Practices, Operational and Production Limits

- a. Distillate fuel oil shall be the only fuel fired in the affected engines.
- b. Each affected engine shall operate for no more than 500 hours/year.
- c.
 - i. If an affected engine is routinely operated or exercised to confirm that the engine will operate when needed, the operation and opacity of the engine shall be formally observed by operating personnel for the engine or a member of Permittee's environmental staff on a regular basis to assure that the engine is operating properly, which observations shall be made at least every six months.
 - ii. If an affected engine is not routinely operated or exercised, i.e., the time interval between operation of an affected engine is typically greater than six months, the operation and opacity of the affected engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected engine.

- iii. The Permittee shall also conduct formal observations of operation and opacity of an affected engine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the Permittee may schedule these observations to take place during periods when it would otherwise be operating the affected engine.

2.4.6 Emission Limitations

- a.
 - i. The emissions of PM, PM10, and VOM from each affected engine shall each not exceed 1.0 lb/hour and 0.25 tons/year.
 - ii. The emissions of formaldehyde from each affected engine shall each not exceed 0.1 lb/hour and 0.03 tons/year.
- b.
 - i. The emissions of SO₂, CO and NO_x from the operation of the engines for up to 100 hours/yr combined shall not exceed 0.20, 0.50, and 3.9 tons/yr, respectively
 - ii. The emissions of SO₂, CO and NO_x from the affected engines in excess of the limits in Condition 2.4.6(b) (i) shall be addressed with the boilers to determine compliance with the annual emission limits in Condition 2.1.6-1 for the affected boiler in Condition 2.1.

2.4.7 Testing Requirements

- a.
 - i. The Permittee shall have the opacity of the emissions of the affected engines during representative operating conditions measured within 90 days of a written request from the Illinois EPA, as specified by such request.
 - ii. Testing shall be conducted using USEPA Test Method 9
 - iii. Following testing, a complete report for the test shall be expeditiously submitted to the Illinois EPA, no later than 30 days after the date of testing.

2.4.8 Monitoring Requirements

None

2.4.9 Recordkeeping Requirements

- a. The Permittee shall maintain the following records for the affected engines:
 - i. A copy of the engine manufacturer's specifications for the engines, including emissions of pollutants other than SO₂ in pound/hour or pound/gallon oil.
 - ii. A. An operating log for each affected engine, which shall include the following information:
 - 1. Information for each time the engine is operated, with date, time, duration, and purpose (i.e., exercise or power service).

- a. For the affected engines, the Permittee shall notify the Illinois EPA of deviations from permit requirements within 30 days.

2.5 Total emissions of VOM and PM from the acid tank, soda tank, sodium hypochlorite tank, 2 reaction tanks, 3 fuel tanks, and cooling tower shall not exceed 1.0 lb/hr and 4.4 Tons/yr for each pollutant.

3.0 General Testing and Emission Monitoring Requirements

3.1 General requirements for Emission Testing

- a. The following methods and procedures shall be used for testing of emissions, unless another USEPA Method is approved by the Illinois EPA. Refer to 40 CFR 60, Appendix A, for USEPA test methods.

Location of Sample Points:	USEPA Method 1
Gas Flow and Velocity:	USEPA Method 2
Flue Gas Weight:	USEPA Method 3
Moisture:	USEPA Method 4
Particulate Matter	USEPA Method 5
PM ₁₀	USEPA Methods 5 and 202
Sulfur Dioxide	USEPA Method 6, 6a, 6b, or 6c
Nitrogen Oxides	USEPA Method 7
Carbon Monoxide	USEPA Method 10
Volatile Organic Material	USEPA Method 18 and 25 or 25A (if outlet VOM cont. < 50 ppmv as carbon, non-methane)
Hydrogen Sulfide	USEPA Method 15
Hydrogen Chloride	USEPA Method 26
Metals, Including Zinc	USEPA Method 29
Formaldehyde	USEPA Method 320*
Opacity	USEPA Method 9

- * Equivalent test methods may be proposed by the Permittee and approved by the Illinois EPA.

Note: For emissions of CO, SO₂, and NO_x from the boiler may be measured by a certified continuous monitoring device.

- b. A written test plan shall be submitted to the Illinois EPA for review and approval at least 60 days before the date of testing. This plan shall describe the specific procedures for testing including as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.
 - iii. The specific determinations of emissions and operation, which are intended to be made, including sampling and monitoring locations.
 - iv. The test methods, which will be used, with different analysis

methods, if the method can be used with different analysis methods.

- v. The planned format and content of the Test Report.
- c. The Permittee shall notify the Illinois EPA prior to the testing to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.
- d. The Permittee shall submit copies of Test Report(s) for emission testing to the Illinois EPA within 30 days after the test results are compiled and finalized but no later than 60 days after the date of testing, unless additional time is provided by the Illinois EPA. Test Reports shall include the following information as a minimum:
 - i. General information (date of test, testing personnel, and observers).
 - ii. A summary of results.
 - iii. Description of test methods, including description of sampling points, sampling train, analysis equipment, and test schedule.
 - iv. Detailed operating data for the emission unit and associated control equipment for the period of testing, including:
 - A. Process information, i.e., mode(s) of operation, process rate, fuel usage rates, raw material composition e.g. fuel or raw material consumption.
 - B. Specific control equipment information, i.e., equipment condition and operating parameters during testing.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analysis, sample calculations, and data on equipment calibration.
 - vi. The results of all quality control evaluations, including a copy of all quality control data.
- e. The Permittee shall keep records for emission testing and observations of visible emissions, including:
 - i. Copies the Test Reports for all emissions testing.
 - ii. Copies of the reports for its observations of opacity or visible emissions by USEPA Method 9 and 22, respectively.

3.2 General Requirements for Emissions and Operational Monitoring

- a. Each required continuous monitoring device shall be equipped with a data-recording device.

- b. The Permittee shall keep a log for the operation and maintenance and repair of each continuous monitoring device.

3.3 Retention and Availability of Records

- a. All records, including logs, required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein or by the source's CAAPP permit), shall be kept at a location at the source that is readily accessible to the Illinois EPA and shall be made available for inspection and copying by the Illinois EPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA request for records during the course of a source inspection.
- c. These minimum requirements for retention and availability of records shall be superseded by any requirements of applicable regulations that are more stringent.

3.4 Reporting Addresses

- a. The following addresses shall be used for the submittal of notifications and reports unless the Illinois EPA notifies the Permittee of new address(es) that should be used for such submittals:
 - i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Enforcement Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016
- b. Unless otherwise specified in the particular provision of this permit, two copies of notifications and reports shall be sent to the Illinois EPA - Air Compliance Enforcement Section with a copy sent to the Illinois EPA - Air Regional Field Office.

If you have any questions on this permit, please contact Eric Jones at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:EEJ:

cc: Region 1

Attachment 1
Summary of Emissions

Equipment/Process	<u>Emissions (Tons/yr)</u>							<u>Formaldehyde</u>
	<u>PM</u>	<u>PM₁₀</u>	<u>NO_x</u>	<u>CO</u>	<u>SO₂</u>	<u>VOM</u>	<u>HCL</u>	
Boiler	61.1	61.1	90.40	97.80	97.80	19.60	5.40	1.02
Ash and Lime Systems	5.50	5.50	-	-	-	-	-	-
Engines	0.25	0.25	3.90	0.50	0.20	0.25	-	0.03
Miscellaneous Units	4.40	4.40	-	-	-	4.40		
Tire Handling	4.40	4.40						
Total	75.65	75.65	94.30	98.30	98.00	24.25	5.40	1.05