



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality Permit

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to and in effect under that Act,

Facility Name: Mohawk Industries, Inc. – Aladdin Manufacturing Corporation Division
Lavender Drive Spinning

Facility Address: 420 Lavender Drive
Rome, Georgia 30162 Floyd County

Mailing Address: P.O. Box 1448
Dalton, Georgia 30722

Facility AIRS Number: 04-13-115-00062

is issued a Permit for the following:

The construction and operation of four GVA 5000 Suessen Heat-Setting Machines. Operation of a yarn spinning facility, including the operations and/or equipment listed in Attachment A. This Permit is issued for the purpose of establishing practically enforceable emission limitations such that the facility will not be considered a major source with respect to Title V of the Clean Air Act Amendments of 1990.

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 28543 dated 8/12/2022; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 9 pages.



Richard E. Dunn, Director
Environmental Protection Division

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Attachment A.

Emission Units		
Source Code	Description	Capacity
SU011	Superba Heat-Setting Machine	1042 lb/hr fiber
SU012	Superba Heat-Setting Machine	1042 lb/hr fiber
SU013	Superba Heat-Setting Machine	1042 lb/hr fiber
SU014	Superba Heat-Setting Machine	1042 lb/hr fiber
BL01	Cleaver-Brooks Boiler	14.65 MMBtu/hr Natural Gas and No. 2 Fuel Oil
BL03	Cleaver-Brooks Boiler (Low-NOx)	25.1 MMBtu/hr for Natural Gas 23.6 MMBtu/hr for No. 2 Fuel Oil
YS01	Yarn Plant	6.05 lb/hr
GVA1	GBA 5000 Suessen Heat-Setting Machine #1	875 lb/hr extruded yarn
GVA2	GBA 5000 Suessen Heat-Setting Machine #2	875 lb/hr extruded yarn
GVA3	GBA 5000 Suessen Heat-Setting Machine #3	875 lb/hr extruded yarn
GVA4	GBA 5000 Suessen Heat-Setting Machine #4	875 lb/hr extruded yarn

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1. General Requirements

- 1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.
- 1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.
- 1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.
- 1.4 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and shall be retained for at least five (5) years following the date of entry.
- 1.5 In cases where conditions of this Permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.

2. Allowable Emissions

- 2.1 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the Heat-Setting Machines, volatile organic compounds (VOC) in amounts equal to or exceeding 99 tons during any consecutive twelve-month period.
[Avoidance of 40 CFR 70]
- 2.2 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from any processes, any gases which exhibit visible emissions, the opacity of which is equal to or greater than 40 percent, unless otherwise specified.
[391-3-1-.02(2)(b)1.]

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- 2.3 The Permittee shall not cause, let, suffer, permit, or allow any emissions from fuel-burning equipment (Source Codes BL01 and BL03) which:
- a. Contain fly ash and/or other particulate matter in amounts equal to or exceeding the rate derived from $P = 0.5(10/R)^{0.5}$ where R equals heat input rate in million BTU per hour and P equals the allowable emission rate in pounds per million BTU
[391-3-1-.02(2)(d)2.(ii)]
 - b. Exhibit visible emissions, the opacity of which is equal to or greater than 20 percent except for one six-minute period per hour of not more than 27 percent opacity.
[391-3-1-.02(2)(d)3.]
- 2.4 The Permittee shall not cause, let, suffer, permit, or allow the emission from any source, particulate matter (PM) in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this Permit. For purpose of determining compliance with this Condition, each Heat-Setting Machine is a separate process under Rule (e).
[391-3-1-.02(2)(e)1.]
- a. For equipment in operation or extensively altered after July 2, 1968:
 - i. $E = 4.1P^{0.67}$, for process input weight rate up to and including 30 tons per hour;
 - ii. $E = 55P^{0.11} - 40$, for process input weight rate in excess of 30 tons per hour.
 - b. For equipment in operation or under construction contract on or before July 2, 1968:
 $E = 4.1P^{0.67}$

Where:

E = allowable emission rate in pounds per hour;

P = process input weight rate in tons per hour.

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- 2.5 The Permittee shall not cause, let, suffer, permit, or allow the emission from the Yarn Plant, particulate matter (PM) in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this Permit.
[391-3-1-.02(2)(fff)]

$$E = 4.1P^{0.67}$$

Where:

E = allowable emission rate in pounds per hour;

P = process input weight rate in tons per hour.

- 2.6 The Permittee shall not cause, let, suffer, permit, or allow emissions of NO_x, from boiler BL03, exceeding 30 ppm at 3 percent O₂, dry basis during the period May 1 through September 30 of each year.
[391-3-1-.02(2)(lll)]
- 2.7 The Permittee shall comply with all applicable provisions of the New Source Performance Standards (NSPS) as found in 40 CFR 60 Subpart A - "General Provisions" and 40 CFR 60 Subpart Dc - "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units," for operation of boilers with Source Codes BL01 and BL03.
[40 CFR 60.40c]
- 2.8 The Permittee shall not combust distillate fuel oil in the boilers with Source Codes BL01 and BL03 that contains greater than 0.5% sulfur, by weight. Distillate fuel oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396, "Standard Specification for Fuel Oils."
The fuel oil sulfur limit applies at all times, including periods of startup, shutdown, and malfunction.
[40 CFR 60.41c, 40 CFR 60.42c(d), and 40 CFR 60.42c(i); 391-3-1-.02(2)(g)-Subsumed]
- 2.9 The Permittee shall not fire any fuel other than natural gas, propane, and distillate fuel oil in boilers with Source Codes BL01 and BL03. Also, the Permittee shall not fire distillate fuel oils in boilers with Source Codes BL01 and BL03 unless during periods of gas curtailment, gas supply emergencies, startups, or periodic testing on liquid fuel (Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year).
[40 CFR 63 Subpart JJJJJ Avoidance-63.11195(e) and 40 CFR 63.111237 and 391-3-1-.02(2)(g)2.-subsumed]

3. Fugitive Emissions

- 3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.

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4. Process & Control Equipment

4.1 Not applicable.

5. Monitoring

5.1 The Permittee shall, each calendar year, monitor emissions of nitrogen oxides (NO_x) from boiler with Source Code BL03, unless the boiler will not operate during the ozone season (May 1 through September 30 of each year) by performing a tune-up for each boiler to demonstrate compliance with the NO_x concentration limit of Condition No. 2.6 using the following procedures:

[391-3-1-.02(6)(b)1 and PTM Section 2.119]

- a. The tune-up shall be performed no earlier than March 1 and no later than May 1 of each calendar year. In the case of initial startups that occur after May 1 but before September 30, tune-ups shall be performed no later than 120 hours after startup. The tune-up shall be performed at the normal maximum operating load expected during the period from May 1 to September 30 of each year.
- b. The tune-up shall be performed by using the manufacturer recommended settings for reduced NO_x emissions or by using a NO_x analyzer. Adjustments shall be made, as needed, so that NO_x emissions are reduced in a manner consistent with good combustion practices and safe fuel-burning equipment operation.
- c. Following the adjustments, or determination that adjustments are not required, the Permittee shall perform a measurement consisting of a minimum of three test runs to demonstrate that the average emissions are less than or equal to the NO_x concentration limit of Condition 2.6. Each test run shall be a minimum of 30 minutes of operational data in length. Following any test run which results in an average NO_x concentration that exceeds the NO_x limit of Condition 2.6, the Permittee shall make adjustments to the boiler and conduct a new set of test runs within one day. Subsequent adjustments followed by test runs shall be continued until the average of 3 consecutive test runs do not exceed the NO_x concentration limit of Condition 2.6.
- d. All measurements of NO_x and oxygen concentrations in paragraphs b. and c. of this condition shall be conducted using procedures of the American Society for Testing and Materials (ASTM) Standard Test Method for Determination of NO_x, Carbon Monoxide (CO), and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, ASTM D 6522; procedures of Gas Research Institute Method GRI-96/0008, EPA/EMC Conditional Test Method (CTM-30) Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers and Process Heaters Using Portable Analyzers; or procedures of EPA Reference Method 7E and 3A.

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- e. The Permittee shall maintain records of all tune-ups performed in accordance with this condition. These records shall include the following:
 - i. date and time the tune-up was performed
 - ii. the boiler settings for each test run
 - iii. the average NO_x concentration (in ppm at 3 percent O₂, dry basis) for each test run
 - iv. what operating parameters were adjusted to minimize NO_x emissions
 - v. an explanation of how the final (compliant) settings were determined
 - f. Following the tune-up, from the period May 1 through September 30 of each year, the Permittee shall operate each affected boiler using the settings determined during the annual tune-up. If no parameters can be monitored to indicate the performance of a specific boiler, the Permittee shall certify that no adjustments have been made to the boiler by the Permittee and/or any third party since the most recent successful tune-up was completed. This certification shall be made in writing no later than October 15 of each year and shall be maintained with the records required by paragraph e. of this condition.
 - g. If a boiler is capable of operating for 3 consecutive test runs with average NO_x concentrations of less than or equal to 15 ppm corrected to 3 percent oxygen, the Permittee may conduct the next subsequent tune-up in the fourth calendar year following the demonstration of 15 ppm or less. Results of measurements of NO_x and oxygen concentrations and tune-ups, maintenance and records, and subsequent boiler operation shall otherwise be conducted as described in paragraphs a. through f. of this condition. The Permittee shall continue to make annual certifications of no adjustments since the previous tune-up.
 - h. As an alternative to complying with the requirements in this condition, the Permittee shall submit documentation no later than April 30 of each year confirming that an affected unit will not operate during the months of May through September. As a minimum, the documentation shall include the identification of the facility, the permit number, and the specific affected units that will not be operated.
- 5.2 The Permittee shall verify that each shipment of distillate fuel oil received for combustion in boiler with Source Codes BL01 and BL03 complies with the requirements of Condition 2.8. Verification shall consist of either of the following:
- a. Fuel oil receipts obtained from the fuel supplier certifying that the oil is distillate fuel oil and contains less than or equal to 0.5% sulfur by weight; or
[40 CFR 60.42c(h)(1)]

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- b. Analysis of the fuel oil conducted by methods of sampling and analysis which have been specified or approved by the Division which demonstrates that the fuel oil contains less than or equal to 0.5% sulfur by weight.

5.3 The Permittee shall install, calibrate, maintain and operate natural gas and fuel oil consumption meters on the boilers with Source Codes BL01 and BL03. As allowed by 40 CFR 60 Subpart Dc, the Permittee may propose an alternative protocol for monitoring fuel usage. The proposal shall be submitted in writing to the Division for review and final approval.
[40 CFR 60 Subpart Dc]

6. Performance Testing

- 6.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The following provisions shall apply with regard to such tests:
- a. All tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants.
 - b. All test results shall be submitted to the Division within sixty (60) days of the completion of testing.
 - c. The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.
 - d. All monitoring systems and/or monitoring devices required by the Division shall be installed, calibrated and operational prior to conducting any performance test(s). For any performance test, the Permittee shall, using the monitoring systems and/or monitoring devices, acquire data during each performance test run. All monitoring system and/or monitoring device data acquired during the performance testing shall be submitted with the performance test results.

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7. Notification, Reporting and Record Keeping Requirements

- 7.1 The Permittee shall maintain the following monthly records as they pertain to the operation of the Heat-Setting Machines:
[Avoidance of 40 CFR 70 and 391-3-1-.02(6)(b)1.]

- a. Mass of yarn processed in pounds per Heat-Setting Machine; and
- b. VOC emission factor in pound of VOC per pound of yarn processed per Heat-Setting Machine.

The Permittee shall retain these records in a form suitable and available for inspection or submittal to the Division.

- 7.2 The Permittee shall use the records required by Condition 7.1 to compute and record the monthly VOC emissions from each Heat-Setting Machine using the following formula:
[Avoidance of 40 CFR 70]

VOC emissions (tons/machine-month) =
(pounds of yarn processed/machine-month)*(pounds of VOC emitted/pound of yarn processed/machine)

The Permittee shall retain these records in a form suitable and available for inspection or submittal to the Division.

- 7.3 The Permittee shall use the records required by Condition 7.2 to compute and record the monthly total VOC emissions from the Heat-Setting Machines using the following formula:
[Avoidance of 40 CFR 70]

$$VOC\ emissions\ \left(\frac{tons}{month}\right) = \sum_{i=1}^n (VOC\ emissions\ \left(\frac{tons}{machine - month}\right))$$

The Permittee shall notify the Division in writing if the monthly total VOC emissions from the Heat-Setting Machines equal or exceed 8.25 tons. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain compliance with the emission limit in Condition 2.1. The Permittee shall retain these records in a form suitable and available for inspection or submittal to the Division.

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- 7.4 The Permittee shall use the calculations required by Condition 7.4 to determine the twelve-month consecutive emissions of VOC for the Heat-Setting Machines for each month. The Permittee shall notify the Division in writing if the VOC emissions from the Heat-Setting Machines equal or exceed ninety-nine (99) tons during any consecutive twelve-month period. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain compliance with the emission limit in Condition 2.1. The Permittee shall retain these records in a form suitable and available for inspection or submittal to the Division.
[Avoidance of 40 CFR 70]
- 7.5 The Permittee shall retain the following records regarding fuel oil fired in the boilers with Source Codes BL01 and BL03. The Permittee shall retain these records in a form suitable and available for inspection or submittal to the Division.
[40 CFR 60.48c(e)(11), 40 CFR 60.48c(f)(1), and 40 CFR 60.48c(g)]
- a. Shipping receipts or analyses used by the Permittee, as per Condition 5.2, to verify compliance with Condition 2.8.
 - b. A statement from each fuel oil supplier used that the fuel oil delivered complies with Condition 2.8.
 - c. Quantity of fuel oil burned daily in the boilers. If the fuel oil contains less than 0.3% sulfur by weight, monthly records of fuel oil burned are acceptable.
 - d. Quantity of natural gas burned monthly in the boilers.
- 7.6 The Permittee shall submit written notification of startup of the GVA 5000 Suessens to the Division within 15 days after such date. The notification shall be submitted to:
Mr. Sean Taylor
Stationary Source Compliance Program
4244 International Parkway, Suite 120
Atlanta GA 30354
- 7.7 The Permittee shall submit to the Division a semiannual report, within 30 days following the end of each such period ending June 30 and December 31, regarding fuel oil purchases and the firing of such fuel oil in boilers with Source Codes BL01 and BL03. The report shall contain:
[40 CFR 60.48c(d)&(e)]
- a. The name of each fuel oil supplier and a statement from each supplier certifying that the fuel oil complies with Condition 2.8.
 - b. A certified statement signed by the Permittee that the records of fuel oil supplier certifications submitted in accordance with a. of this condition represent all of the fuel oil fired in the boilers during the semiannual period.

If no fuel oil was fired in the boilers during the reporting period, the report shall so state.

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8. Special Conditions

- 8.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.
- 8.2 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of the fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Application & Annual Permit Fees."
- 8.3 Permit No. 2281-115-0062-B-02-0 is hereby revoked in its entirety.