



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 9-1402-00453/00006
Effective Date: 10/10/2013 Expiration Date: 10/09/2023

Permit Issued To: S J MCCULLAGH INC
245 SWAN ST
BUFFALO, NY 14203

Contact: WARREN E EMBLIDGE, JR
S J MCCULLAGH INC
245 SWAN STREET
BUFFALO, NY 14204
(716) 856-3473

Facility: S J MCCULLAGH INC
245 SWAN ST
BUFFALO, NY 14203

Description:

SJ McCullagh, Inc.
ASF Permit Description
DEC ID No. 9140200453/00006

SJ McCullagh operates a coffee roasting facility at 245 Swan Street in Buffalo, New York that produces approximately 2 to 3 million pounds of coffee for sale each year. The facility operates two coffee roasters simultaneously, processing 500 lbs of coffee every 15-20 minutes in each roaster. The coffee roasting process generates highly toxic hazardous air pollutants (HAPs), including formaldehyde, acrolein and acetaldehyde, which must be controlled as specified in 6 NYCRR 212.9(b), Table 2 for "A" rated contaminants. Presently, the two coffee roasters have flue gas recirculation identified as control, which abates only a portion of the pollutants in the coffee roaster exhaust. Coffee roasting emissions are typically controlled using thermal, catalytic or regenerative oxidizers. This project is for the installation of thermal oxidizers to control emissions of formaldehyde, acrolein and acetaldehyde from each coffee roaster to levels that will result in ambient concentrations below NYSDEC's short-term and annual guideline concentrations (SGCs and AGCs) set to minimize the public risk of toxic exposure and to comply with the requirements of 6 NYCRR 212.9(b). The oxidizer will also control the emission of other pollutants including acetic acid, volatile organic compounds (VOCs), particulates (PM), and PM-10. In lieu of installing an oxidizer/oxidizers on each



roaster exhaust, SJ McCullagh may install a new precision profile roasting system that includes a thermal oxidizer and cyclone for pollution control.

The exhaust stacks for the roasters and associated coolers are currently equipped with rain caps, which prevent proper dispersion of air pollutants. This project also includes the modification of the exhaust stacks to enhance plume rise and the dispersion of pollutants in accordance with acceptable stack design standards and guidelines.

SJ McCullagh currently operates the coffee roasting process under an Air Facility Registration Certificate. In accordance with new 6NYCRR201 requirements, SJ McCullagh must operate their coffee roasting facility under an Air State Facility (ASF) permit due to the presence of persistent, bioaccumulative and toxic compounds, including formaldehyde, acrolein, and acetaldehyde at significant mass emission rates that exceed those listed in 6 NYCRR 201-9, Table 1. The coffee roasters and their associated coolers are identified in the ASF permit as Emission Sources R0001/C0001 and R0002/C0002. Particulate emissions are controlled by cyclones associated with each roaster and cooler, identified as R1CYC/C1CYC and R2CYC/C2CYC. The coffee roasting, cooling and material handling processes are identified as Process 001, Process 002 and Process 003, respectively. Emission Points (EPs) 00001 and 00002 exhaust contaminants from the two roasters and their associated cyclones. EPs 00003 and 00004 exhaust contaminants from the two coolers and their associated cyclones. All coffee roasting operations are contained in Emission Unit U-00001.

Applicable requirements specified in the ASF permit include various sections of 6NYCRR 212: General Process Emission Sources, 6NYCRR 211: General Prohibitions and a condition under 6NYCRR 201-6.1 that requires a stack test of carbon monoxide (CO) emissions from the thermal oxidizers to determine whether the facility needs to cap potential emissions of CO to less than 100 tpy to avoid the requirements of 6NYCRR201-6: Title V Facility Permits. SJ McCullagh is also required to determine the destruction efficiency of each oxidizer and the emission rates of formaldehyde, acrolein and acetaldehyde. The mass emission rates will be used to confirm the results of the air quality analysis conducted during design and to establish emission factors for formaldehyde, acrolein, acetaldehyde and CO.

When performance testing is completed, S J McCullagh must submit an application for an ASF permit modification that includes all of the specifics regarding changes that were made in the coffee roasting process, including the addition of control equipment and stack height increases.



By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: DOUGLAS E BORSCHEL
 270 MICHIGAN AVE
 BUFFALO, NY 14203-2915

Authorized Signature: _____ Date: ____ / ____ / ____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

Facility Level

- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS



DEC GENERAL CONDITIONS
****** General Provisions ******
GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department

Applicable State Requirement: ECL 19-0305

Item 1.1:

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS

Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:
NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

New York State Department of Environmental Conservation

Permit ID: 9-1402-00453/00006

Facility DEC ID: 9140200453



Permit Under the Environmental Conservation Law (ECL)

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY
PERMIT**

IDENTIFICATION INFORMATION

Permit Issued To: S J MCCULLAGH INC
245 SWAN ST
BUFFALO, NY 14203

Facility: S J MCCULLAGH INC
245 SWAN ST
BUFFALO, NY 14203

Authorized Activity By Standard Industrial Classification Code:
2095 - ROASTED COFFEE

Permit Effective Date: 10/10/2013

Permit Expiration Date: 10/09/2023



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6 NYCRR 201-6.1: Compliance Demonstration
- 2 6 NYCRR 211.1: Air pollution prohibited
- 3 6 NYCRR Part 212: Compliance Demonstration
- 4 6 NYCRR 212.4 (c): Compliance Demonstration
- 5 6 NYCRR 212.6 (a): Compliance Demonstration
- 6 6 NYCRR 212.9 (b): Compliance Demonstration
- 7 6 NYCRR 212.9 (b): Compliance Demonstration
- 8 6 NYCRR 212.9 (b): Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 9 ECL 19-0301: Contaminant List
- 10 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 11 6 NYCRR Subpart 201-5: Emission Unit Definition
- 12 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 13 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 14 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

- 15 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 16 6 NYCRR Subpart 201-5: Process Definition By Emission Unit



FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: Maintenance of Equipment - 6 NYCRR 200.7

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,



required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

- (a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.
- (b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.



(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item F: Recycling and Salvage - 6 NYCRR 201-1.7

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item G: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item H: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item J: Required Emission Tests - 6 NYCRR 202-1.1



An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item K: Open Fires Prohibitions - 6 NYCRR 215.2
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item L: Permit Exclusion - ECL 19-0305
The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: Federally Enforceable Requirements - 40 CFR 70.6 (b)
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 1: Compliance Demonstration



Effective between the dates of 10/10/2013 and 10/09/2023

Applicable Federal Requirement:6 NYCRR 201-6.1

Item 1.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001

Regulated Contaminant(s):
CAS No: 000630-08-0 CARBON MONOXIDE

Item 1.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The incomplete combustion of hydrocarbons results in the generation of carbon monoxide (CO) emissions. Stack test results for coffee roasting facilities with roasting capacities equivalent to SJ McCullagh's show that the potential to emit (PTE) CO based on the thermal oxidation of coffee roaster exhaust may exceed the major source threshold for title V applicability. To determine whether or not a federally enforceable cap on CO emissions is required to avoid title V requirements, SJ McCullagh shall conduct Reference Method 10: Determination of Carbon Monoxide Emissions from Stationary Sources at the outlet of each thermal oxidizer. The results of the test shall be used to determine an emission factor in lbs CO/ton of coffee roasted and the facility PTE CO shall be calculated. If the facility PTE exceeds the major source threshold of 100 tons per year (tpy) for title V applicability, SJ McCullagh shall use the CO emission factor to calculate the facility's 12-month rolling totals for actual annual CO emissions based on the last five years of coffee bean usage. The PTE and actual annual 12-month rolling totals for CO shall be submitted with the application for an ASF permit modification required in accordance with the schedule contained in this permit.

If necessary, SJ McCullagh's CO emissions shall be limited to 99 tpy to avoid title V requirements as part of the ASF permit modification. In that case, CO emissions shall be tracked monthly using the emission factor established from NYSDEC approved stack test results and monthly coffee bean usage. Each calendar month, the facility-wide 12-month rolling total for CO emissions shall be computed by adding the current monthly CO emissions to the CO emissions for the previous 11 months. SJ McCullagh shall maintain



records of the quantity of coffee beans roasted for all sources. Purchase, usage logs, production and sales records shall be maintained onsite to verify the monthly quantity of beans roasted. SJ McCullagh shall submit to the Regional Office of the Department, an annual CO emission report which certifies that the facility has been operated within the limits imposed by the emission cap. The report shall list the monthly quantity of coffee roasted for each source, the monthly CO emissions for each source, the total monthly CO emissions, the rolling 12-month total CO emissions for each consecutive month of the calendar year and a comparison to the 99 tpy limit for the facility. The annual report shall be submitted by January 30th for the previous calendar year.

If stack test results show that level of CO emissions do not require a permit limit to avoid title V requirements, no further action is required. If stack test results show that actual facility-wide CO emissions will meet or exceed 100 tpy, a title V permit application must be submitted.

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 99 tons per year

Reference Test Method: 10

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 2: Air pollution prohibited
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable Federal Requirement:6 NYCRR 211.1

Item 2.1:

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

Condition 3: Compliance Demonstration
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable Federal Requirement:6 NYCRR Part 212

Item 3.1:

The Compliance Demonstration activity will be performed for the Facility.



Regulated Contaminant(s):

CAS No: 000075-07-0	ACETALDEHYDE
CAS No: 000107-02-8	ACROLEIN
CAS No: 000630-08-0	CARBON MONOXIDE
CAS No: 000050-00-0	FORMALDEHYDE

Item 3.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

COMPLIANCE SCHEDULE

December 31, 2013:

1) Submit engineering analysis, design details and diagrams showing specifications of all process and control equipment to be installed and any modifications that will be made to existing equipment and exhaust stacks to meet all applicable requirements of 6NYCRR Part 212, 6NYCRR Part 211 and acceptable stack design standards and guidelines. Specifications for existing equipment associated with the coffee roasting process shall be verified and included with the design details and diagrams. A schedule estimating the completion dates of significant tasks related to this modification shall be included and updated as needed.

2) Submit an air quality analysis using a NYSDEC approved model to show that the proposed process and control equipment modifications are not expected to result in ambient offsite concentrations of formaldehyde, acrolein or acetaldehyde that exceed the short-term (1-hr) and annual guideline concentrations (SGCs and AGCs) established by NYSDEC to protect the public and the environment from the adverse effects of acute and chronic inhalation exposure to toxic contaminants. Modeled emission rates shall be estimated based on manufacturer's guarantee and/or acceptable published emission factors at maximum design capacity. The air quality analysis of estimated formaldehyde, acetaldehyde and acrolein emissions is required for the design of the oxidizer and exhaust stacks. SJ McCullagh may be required to verify these modeling results using approved stack test results, operating data and design parameters, if there is a significant difference between design and actual conditions. Odor detection in the surrounding neighborhood must also be considered to evaluate the impact of the coffee roasting process.

August 1, 2014:

1) Construction/installation/modification of all equipment completed.



- 2) Start-up of new and/or modified equipment commences.
- 3) Submit stack test protocol for performance testing of newly installed/modified equipment. Testing shall include determination of destruction efficiency of oxidizers and the emission rate potential for acrolein, acetaldehyde, and formaldehyde using acceptable test methods and procedures. The stack test protocol shall also contain an acceptable method and procedures for the determination of carbon monoxide emissions from each oxidizer.

Within 15 days of NYSDEC approval of Stack Test Protocol:
 Conduct performance tests based on an approved stack test protocol.

Within 45 days of conducting performance test:
 Submit Stack Test Report for NYSDEC review. The report shall include an emission factor (lb pollutant/ton coffee roasted) established for each contaminant tested.

Within 30 days of NYSDEC approval of Stack Test Report:
 Submit a complete Air State Facility permit application for the modifications conducted at the facility.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
 Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 4: Compliance Demonstration
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable Federal Requirement: 6 NYCRR 212.4 (c)

Item 4.1:
 The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

- | | |
|------------------------|-----------------------|
| Emission Unit: U-00001 | Emission Point: 00001 |
| Emission Unit: U-00001 | Emission Point: 00002 |
| Emission Unit: U-00001 | Emission Point: 00003 |
| Emission Unit: U-00001 | Emission Point: 00004 |

Regulated Contaminant(s):
 CAS No: 0NY075-00-0 PARTICULATES

Item 4.2:

New York State Department of Environmental Conservation

Permit ID: 9-1402-00453/00006

Facility DEC ID: 9140200453



Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Particulate emissions from the coffee roasting process and any other particulate generating activity are restricted as follows:

For an environmental rating of B or C, no person will cause or allow emissions of solid particulates that exceed 0.050 grains of particulates per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis. Particulate generating activities must be controlled when necessary to ensure compliance with the 0.050 grains/dscf standard for particulates

SJ McCullagh shall control particulate emissions with appropriate devices, such as cyclones, thermal oxidizers or other particulate control equipment to meet the standard specified in this condition. All control equipment shall be properly operated and maintained in accordance with manufacturer's recommendations/specifications. Records shall be maintained to demonstrate compliance with operating and maintenance requirements and shall be readily available for NYSDEC review upon request. All records shall remain onsite for 5 years. The Department may require that SJ McCullagh conduct a performance test to demonstrate compliance with this particulate standard.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.050 grains per dscf

Reference Test Method: 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST
METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 5: Compliance Demonstration
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable Federal Requirement:6 NYCRR 212.6 (a)

Item 5.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001

Emission Point: 00001



Emission Unit: U-00001 Emission Point: 00002
Emission Unit: U-00001 Emission Point: 00003
Emission Unit: U-00001 Emission Point: 00004
Regulated Contaminant(s):
CAS No: 0NY998-00-0 VOC
CAS No: 0NY075-00-0 PARTICULATES

Item 5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No person shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source, except only the emission of uncombined water. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

Compliance with this requirement shall be determined by the facility owner/operator by conducting a daily survey of visible emissions from the emission points specified in this condition when coffee roasting processes are in operation. Unless a certified visible emissions evaluator is onsite to verify that the opacity of facility emissions is less than 20%, if any visible emissions (> 0 %) are identified, the permittee shall determine the cause, make the necessary corrections/repairs, and verify that the visible emissions problem has been corrected. If visible emissions continue, within the next operating day, a certified visible emissions evaluator shall conduct a Method 9 assessment of the sources associated with the potential noncompliance to determine the degree of opacity. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

The results of daily observations must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack: date and time of day; observer's name; identity of emission point; weather condition; a description of the plume observed and location of observer. Inclement weather conditions shall be recorded for those days when



observations are prohibited. Records of visible emissions observations (and results of any follow-up Method 9 analysis), investigations and corrective actions shall be kept on-site in a format acceptable to the Department. The logbook must be retained at the facility for five (5) years after the date of the last entry. Any deviations shall be reported.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: Method 9
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 6: Compliance Demonstration
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable Federal Requirement: 6 NYCRR 212.9 (b)

Item 6.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001	Emission Point: 00001
Emission Unit: U-00001	Emission Point: 00002
Emission Unit: U-00001	Emission Point: 00003
Emission Unit: U-00001	Emission Point: 00004

Item 6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Coffee roasting emissions of HAPs, VOCs and PM/PM-10 are typically controlled using a thermal, catalytic or regenerative oxidizer. This ASF permit application requires the installation of an oxidizer/oxidizers designed to destroy formaldehyde, acrolein and acetaldehyde emissions in the coffee roaster exhaust to levels that will result in compliance with the requirements of 6NYCRR212.9(b), Table 2 for A-rated contaminants and maximum ambient concentrations below NYSDEC AGCs and SGCs set to minimize the public risk of toxic exposure to pollutants. In accordance with 6NYCRR212.9(b), Table 2, NYSDEC requires a minimum of 99% destruction efficiency for A-rated contaminants with emission rate potentials between 1.0 lb/hr to 10 lbs/hr.



Estimates of emission rate potentials for these contaminants, based on published emission factors, show that formaldehyde, a known human carcinogen, is emitted at a rate that requires 99% control. Thermal oxidize design shall provide 99 % destruction efficiency (DE), based on formaldehyde emissions, and a residence time for combustion and minimum operating temperature that will achieve that DE.

Current exhaust stack heights for the roasters and their associated coolers are insufficient to ensure proper dispersion of contaminants. In addition, each stack is equipped with a rain cap that directs pollutants downward. SJ McCullagh shall design, construct and operate the exhaust stacks associated with the oxidizers and coolers in accordance with acceptable stack design standards and guidelines. Plume rise shall be sufficient to ensure proper dispersion of pollutants. Exhaust stacks shall not contain rain caps. If rain protection is installed on the exhaust stacks, it shall not interfere with plume rise. The stack height above the structure shall be based on the highest point of the building or adjacent building, if taller. An acceptable dispersion model and NYSDEC AGCs and SGCs shall be used to select the appropriate stack parameters.

This permit allows SJ McCullagh to install thermal oxidizers on the existing roasters to control air pollution and to modify all exhaust stacks and associated equipment. In lieu of installing new oxidizers or other acceptable control equipment on the existing coffee roaster exhaust, SJ McCullagh may install a new precision profile roasting system that includes a thermal oxidizer and cyclone for pollution control. A subsequent application for this permit modification is required to provide pertinent details of the changes made in accordance with the schedule specified under 6NYCRR212.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 7: Compliance Demonstration
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable Federal Requirement:6 NYCRR 212.9 (b)

Item 7.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:



Emission Unit: U-00001 Emission Point: 00001
Emission Unit: U-00001 Emission Point: 00002
Regulated Contaminant(s):
CAS No: 000075-07-0 ACETALDEHYDE
CAS No: 000107-02-8 ACROLEIN
CAS No: 000050-00-0 FORMALDEHYDE

Item 7.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions generated by coffee roasters, thermal oxidizers, coolers and coffee handling equipment, include hazardous air pollutants (HAPs), acetic acid, particulate matter (PM), PM-10, volatile organic compounds (VOCs), carbon monoxide, oxides of nitrogen and carbon dioxide. Hazardous air pollutants emitted from the coffee roasting process include the toxic compounds formaldehyde, acrolein and acetaldehyde. These contaminants have been assigned an environmental rating of 'A' because their discharge may result in serious adverse health effects on receptors and/or the environment. SJ McCullagh shall meet the requirements for degree of cleaning specified in 6 NYCRR 212.9(b), Table 2 for A-rated contaminants. The emission rate potentials (ERPs) for formaldehyde, acrolein and acetaldehyde, estimated using published emission factors, are 3 lb/hr, 0.02 lb/hr and 2.94 lb/hr, respectively. Based on these ERPs, the contaminants will require either 99% degree of air cleaning or the degree of air cleaning specified by the Department.

SJ McCullagh shall conduct a performance test using reference methods acceptable to the Department to 1) determine the degree of air cleaning in terms of destruction efficiency (DE) for each thermal oxidizer and 2) to confirm the emission rate potential (ERP) and actual emissions of formaldehyde, acrolein and acetaldehyde in pounds per hour. The performance test shall be conducted while operating all processes contained in Emission Unit U-00001 at maximum capacity/throughput/production rate for the type of roasting process that generates the highest pollutant emissions. During the stack test, process parameters including coffee bean type, roasting technique/process, coffee bean throughput and other pertinent information shall be recorded. The thermal oxidizer's combustion temperature shall be continuously recorded throughout the stack test in accordance with this permit.



The performance test shall be conducted according to the time frames specified in the monitoring condition under 6 NYCRR 212. SJ McCullagh shall notify NYSDEC Region 9 office of the time and date of the test, in writing (mail or e-mail), not less than 7 days prior to the test. A stack test protocol shall be submitted at least 45 days prior to the scheduled stack test date describing acceptable methods to be used, including sampling and analytical procedures, quality assurance/quality control measures, process monitoring/data collection and other pertinent information regarding the stack test methods and operation of the coffee roasters and associated control equipment during the testing period. A report detailing stack test results must be submitted within 45 days of conducting the stack test. The stack test must be completed by January 30, 2015.

Emission factors for the contaminants tested, including formaldehyde, acrolein and acetaldehyde, shall be developed from the results and shall be included in the stack test report. The emission factors shall be in pounds of contaminant per ton of coffee roasted and shall be based on roaster throughput at the time of testing. These emission factors shall be used to determine the facility's potential to emit and actual emissions of each contaminant tested.

SJ McCullagh shall maintain the following records and provide all of the data necessary to evaluate compliance, including monthly records of the batch and total weight (lbs) of green coffee beans roasted in each roaster; monthly usage records totaled for each consecutive 12-month period; and records of continuous temperature measurements of the thermal oxidizers whenever the coffee roasters are in operation. All records shall be retained onsite for five years from the date of entry, and made available for inspection by NYSDEC representatives upon request.

Lower Permit Limit: 99 percent reduction

Reference Test Method: Methods Acceptable to the Department

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 8: Compliance Demonstration
Effective between the dates of 10/10/2013 and 10/09/2023



Applicable Federal Requirement:6 NYCRR 212.9 (b)

Item 8.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000075-07-0	ACETALDEHYDE
CAS No: 000107-02-8	ACROLEIN
CAS No: 0NY998-00-0	VOC
CAS No: 000050-00-0	FORMALDEHYDE

Item 8.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

To demonstrate compliance with the minimum temperature requirement, the combustion chamber temperature of each thermal oxidizer shall be continuously monitored and recorded. The thermal oxidizer (s) shall be operated at 1400 °F or greater until a NYSDEC approved performance test demonstrates that compliance may be achieved at an alternative minimum temperature. Compliance shall be based on demonstrating 99% destruction of formaldehyde emissions in the roaster exhaust, modeled stack test results that show maximum ambient air concentrations that are less than the annual and short-term guideline concentrations (AGCs and SGCs) for formaldehyde, acrolein and acetaldehyde and no odor problem in the surrounding neighborhood caused by the coffee roasting process. The temperature controller set points shall be at the minimum required combustion temperature or greater. The thermal oxidizer(s) shall be operated at the required minimum combustion temperature at all times that the coffee roasting process is in operation. Additional stack tests shall be conducted at the discretion of the Department. Periods of coffee roasting that have no temperature records shall be considered uncontrolled. Any deviations shall be reported.

The thermal oxidizers, continuous temperature recorders and associated equipment shall be installed, operated, calibrated and maintained in accordance with this permit and the manufacturer's recommendations and specifications in a manner consistent with good engineering practices. Any detailed inspection, maintenance, adjustment, modification and/or repair shall be conducted by a thermal oxidizer specialist who shall prepare a report detailing the results, problems found and any maintenance, repair, and/or modification recommended and/or carried out. Routine inspections and maintenance may be conducted by

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onsite personnel trained in the operation and maintenance of the thermal oxidizer and associated equipment. Details shall be recorded in a permanently bound logbook, including date, time, inspector's name, inspection results, parts replaced/cleaned and, whenever a problem is discovered, a description of the problem, cause and corrective action taken. Spare parts for routine maintenance and common repairs shall be kept onsite.

Original recorder charts and/or electronic data showing continuous monitoring and recording of combustion chamber operating temperatures and records of calibration, maintenance and repair shall be kept onsite for a minimum of 5 years. All electronic data shall be stored securely and backed up on a daily basis. Performance test related documents shall be maintained onsite indefinitely.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1400 degrees Fahrenheit for at least
one second for residence time

Monitoring Frequency: CONTINUOUS

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE AT ANY TIME

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item B: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state only enforceable.

Condition 9: Contaminant List
Effective between the dates of 10/10/2013 and 10/09/2023



Applicable State Requirement:ECL 19-0301

Item 9.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000050-00-0
Name: FORMALDEHYDE

CAS No: 000075-07-0
Name: ACETALDEHYDE

CAS No: 000107-02-8
Name: ACROLEIN

CAS No: 000630-08-0
Name: CARBON MONOXIDE

CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 0NY998-00-0
Name: VOC

**Condition 10: Malfunctions and start-up/shutdown activities
Effective between the dates of 10/10/2013 and 10/09/2023**

Applicable State Requirement:6 NYCRR 201-1.4

Item 10.1:

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working



hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 11: Emission Unit Definition
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 11.1:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-00001

Emission Unit Description:

This Emission Unit includes two natural gas, direct-fired batch coffee roasters and associated coolers. Particulate Matter (PM) emissions from the roasters and coolers are controlled by individual cyclones. Emissions from the roasters will be controlled by thermal oxidation.

Building(s): MAIN

Condition 12: Renewal deadlines for state facility permits
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 12.1:

The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Condition 13: Compliance Demonstration
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 13.1:

The Compliance Demonstration activity will be performed for the Facility.



Emission Point: 00003
Height (ft.): 42 Diameter (in.): 22
NYTMN (km.): 4754.75 NYTME (km.): 184.24 Building: MAIN

Emission Point: 00004
Height (ft.): 42 Diameter (in.): 22
NYTMN (km.): 4754.75 NYTME (km.): 184.24 Building: MAIN

Condition 16: Process Definition By Emission Unit
Effective between the dates of 10/10/2013 and 10/09/2023

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 16.1:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 001 Source Classification Code: 3-02-002-24
Process Description:

This process consists of the roasting of green coffee beans in two direct-fired, natural gas batch roasters at 500 pounds per batch per roaster. Each roaster is equipped with a cyclone for control of particulate matter (PM), vented to the atmosphere through a dedicated exhaust stack. Beans are roasted for 15 minutes at maximum temperature of 470 degrees Fahrenheit. Criteria contaminant emissions from natural gas combustion and PM, VOCs and hazardous air pollutants (HAPS) from coffee beans and coffee bean roasting.

Emission Source/Control: R0001 - Combustion
Design Capacity: 2,000 pounds per hour

Emission Source/Control: R0002 - Combustion
Design Capacity: 2,000 pounds per hour

Emission Source/Control: R1CYC - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: R2CYC - Control
Control Type: SINGLE CYCLONE

Item 16.2:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 002 Source Classification Code: 3-02-002-28
Process Description:

This process consists of the quenching or cooling of roasted coffee beans in a cooler using ambient air. Each cooler is associated with one roaster and is equipped with a cyclone for control of particulate matter (PM). Roasted

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beans are quenched using outside air. This process emits PM, VOCs and HAPs.

Emission Source/Control: C1CYC - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: C2CYC - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: C0001 - Process

Emission Source/Control: C0002 - Process

Item 16.3:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: 003

Source Classification Code: 3-02-002-08

Process Description:

This process combines material handling, including receiving/raw material unloading, transport/conveying to hopper, charging roasters, discharging roasters, grinding roasted coffee, packaging and shipping finished product. These activities result in fugitive emissions.

Emission Source/Control: HNDLG - Process

