

FACILITY PROFILE

**MCCAIN FOODS (CANADA)
A Division of McCain Foods Limited**

FLORENCEVILLE FROZEN FOOD PLANT

Prepared by:
Authorizations Branch
Authorizations and Compliance Division
Department of Environment and Local Government
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A. BACKGROUND

McCain Foods (Canada), a Division of McCain Foods Limited (McCain Florenceville) operates a frozen food processing plant in the Town of Florenceville-Bristol, New Brunswick.

The plant uses steam to produce approximately 36,000 lbs/hour of french fries; 11,000 lbs/hour of specialty potato products; 13,800 pizza pockets/hour; and 4,600 cakes/hour. In general, the plant consists of peelers, cookers, fryers, a freezer tunnel and packaging.

As required under the Air Quality Regulation – Clean Air Act, McCain Florenceville food plant is considered a source and therefore, must apply for an Air Quality Approval to Operate from the New Brunswick Department of Environment and Local Government. The facility is required to conduct its operations according to conditions outlined in the issued Air Quality Approval aimed at preventing unfavorable air quality conditions. The conditions are generally wide-ranging and may include such requirements as:

- limitations on operational parameters;
- requirements for testing and monitoring emissions from specific unit operations;
- requirements for testing and monitoring the ambient air quality surrounding the facility;
- requirements to operate air pollution control equipment;
- limits on emissions that are approved to be released to the atmosphere;
- provisions for equipment upgrade and/or maintenance;
- requirements for environmental emergency and/or compliance reporting; and
- other conditions aimed at minimizing the facility's impact on the environment.

The Regulation provides for approvals to be issued by the Minister of Environment and Local Government for a specified period, not to exceed five years.

The McCain Florenceville Food Plant's Approval to Operate (identified as I-9207 (amended March 19th, 2019)) issued under the Air Quality Regulation expires on February 28, 2021.

This document is intended to provide: background information on McCain Florenceville Frozen Food Plant and the Air Quality Approvals process; a description of the McCain Florenceville Frozen Food Plant's process, a list of the potential air quality impacts associated with the facility; and a compliance review of the current Air Quality Approval to Operate.

B. PROCESS DESCRIPTION

1. General Overview

At the McCain Florenceville Frozen Food Plant, raw potatoes are received and sorted upon arrival. They are steam-peeled in pressure vessels, inspected, cut, blanched, dried, fried, frozen and packaged, then stored in a cold storage warehouse before being shipped to the customer.

The Prepared Foods Plant on the same site prepares pizza pockets and cakes or pies. In general, the plant consists of mixers, ovens, freezer tunnels, and packaging equipment.

There are exhaust units in the Frozen Food Plant that allow the release of process steam. The exhaust from the fryers is scrubbed with recycled water before being released. Flue gas is released from the stack of the boiler fueled by a combination of natural gas, No. 2 fuel oil, and biogas. This boiler is utilized to produce process related steam and for space heating purposes.

C. POTENTIAL AIR QUALITY IMPACTS

The potential air quality impacts associated with the McCain Florenceville Frozen Food Plant are related primarily to emissions from the facility's steam plant. The following list of potential air quality impacts has been identified:

- Combustion gas emissions (includes sulphur dioxide, nitrogen oxides, particulate matter, and carbon monoxide) from the existing steam plant boilers;
- Odour emissions from various vents and stacks; and
- Noise

D. AIR QUALITY COMPLIANCE

McCain Florenceville Frozen Food Plant is required to comply with the Air Quality Regulation – Clean Air Act and operate under terms and conditions established in its Approval to Operate, issued pursuant to Section 3 of the Air Quality Regulation – Clean Air Act. Conditions are aimed at ensuring that the facility environmental impact during its day-to-day operations does not adversely affect air quality in surrounding areas, as well as regionally and globally. Any violations of the conditions of Approvals may be subject to compliance and enforcement measures as described in the Department of Environment and Local Government's Compliance and Enforcement Policy.

1. Summary of the Requirements of the Air Quality Approval to Operate

The main conditions of the Approval to Operate for McCain Florenceville Frozen Food Plant can be summarized as follows:

- Operate the facility such that the sulphur dioxide (SO₂) and Particulate Matter (PM) emissions from the operation do not exceed 1000 tonnes per year;
- Conduct performance testing on emissions or ambient air quality at such times and in such a manner as requested by the department;
- Ensure that leak inspections on refrigeration systems containing ammonia are conducted on a monthly basis;
- Operate Liquid Effluent Treatment Plant so that all methane gas (a.k.a biogas) produced is collected and burned in the boiler or the flare stack and is not vented directly to the atmosphere; and

- Prepare and submit an annual report containing: a summary of any incidents and information of any violations of the Approval, the amount of natural gas burned, the annual biogas consumption, the average hydrogen sulphide (H₂S) concentration of biogas, the amount of fuel oil burned and its average sulphur content, the annual emission of sulphur dioxide from all combustion sources, and a report of the source testing activities, if applicable.

2. Compliance with Conditions of the Air Quality Approval to Operate

Over the life of the existing Approval all conditions have been met to date. In regard to the main Conditions of Approval listed above, the following is a summary of the facility's compliance:

- The Sulphur Dioxide (SO₂), and Particulate Matter (PM) emissions for the facility have been below the required limit of 1000 tonnes per year as required in the past and current Air Quality Approvals to Operate, as shown in the following table:

Year	SO ₂	PM
	tonnes/year	
2015	2.23	0.42
2016	4.15	0.39
2017	2.23	0.39
2018	2.28	0.61
2019	2.42	0.57

- McCain Florenceville Frozen Food Plant has complied with all requirements for performing source testing;
- All monthly leak inspections have been summarized and submitted to the department;
- To date all methane gas from the Liquid Effluent Treatment Plant has been collected and burned in either the boiler or flare stack; and
- All annual Air Quality Reports have been submitted.

3. Enforcement

Enforcement options used by the Department of Environment and Local Government are outlined in the Department's Compliance and Enforcement Policy. These may include but are not limited to: schedules of compliance, verbal and written warnings, orders, and prosecutions. Although not specifically outlined in the Policy, it is also possible to amend approvals with more stringent conditions, either during its valid period or at the time of renewal, to address specific compliance issues or to improve the environmental impact of the facility. Most recently, a new Regulation under the Clean Air Act allows for the issuance of "administrative penalties" for minor violations as an alternative to traditionally used enforcement options.

There have been no warnings or orders issued, nor have there been any prosecutions initiated by this agency during this period, related to air quality for this facility.

E. PUBLIC OUTREACH

McCain Florenceville Frozen Food Plant indicates that its position on public outreach is to foster positive community relations by maintaining an open-door policy, whereby any member of the public or interested party wishing to obtain further information about the operation may contact McCain Florenceville Frozen Food Plant during regular business hours.

F. CONTACT INFORMATION

For further information on the operation of McCain Florenceville Frozen Food Plant please contact:

Adam MacDonald, Plant Engineer

McCain Foods (Canada) a Division of McCain Foods Limited
8800 Main Street
Florenceville-Bristol, NB E7L 1B2
Telephone: (506) 392-2965
Email: adam.macdonald@mccain.ca

For information on this document, or on environmental regulations relating to air quality, please contact:

Matt Trueman, Approvals Coordinator

Department of Environment and Local Government
P.O. Box 6000, 20 McGloin Street, Marysville Place, Fredericton, NB E3B 5H1
Telephone: (506) 444-3936
Fax: (506) 453-2390
Email: matthew.trueman@gnb.ca

Richard Keeley, Regional Director

Department of Environment and Local Government
P.O. Box 5001, Grand Falls, NB E3Z 1G1
Telephone: (506) 473-7744
Fax: (506) 475-2510
Email: richard.keeley@gnb.ca

For comments on enquiries on the public participation process, please contact:

Chandra Clowater, Public Participation Officer

Stakeholder Education and Engagement
Department of Environment and Local Government
P.O. Box 6000, Marysville Place, Fredericton, NB E3B 5H1
Telephone: (506) 444-4506
Fax: (506) 453-3676
Email: chandra.clowater@gnb.ca