

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

February 2, 2024

PERMIT TO INSTALL
10-24

ISSUED TO
Post Foods, LLC

LOCATED AT
275 Cliff Street
Battle Creek, Michigan 49016

IN THE COUNTY OF
Calhoun

STATE REGISTRATION NUMBER
B1548

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: October 11, 2023	
DATE PERMIT TO INSTALL APPROVED: February 2, 2024	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU2983	Coating operation (Wet Rotoclone2983)	01-01-1952/ 02-15-2011/ 08-20-2013/ PTI Issuance Date	FG2983CoatRTOOn, FG2983CoatRTOOff
EU2985	Drying (uncontrolled).	01-01-1952/ 02-15-2011/ PTI Issuance Date	FG2983CoatRTOOn, FG2983CoatRTOOff
EU29119	Drying (uncontrolled).	05-08-2008/ 02-15-2011/ PTI Issuance Date	FG2983CoatRTOOn, FG2983CoatRTOOff

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG2983CoatRTOOff	Automatic spray application of flavorants onto cereal within a rotating coating reel with associated sugar flash tank followed by a drying oven. The coating reel is controlled by Wet Rotoclone2983. (The Regenerative Thermal Oxidizer 29113N is off during operation.)	EU2983, EU2985, EU29119
FG2983CoatRTOOn	Automatic spray application of flavorants onto cereal within a rotating coating reel with associated sugar flash tank followed by a drying oven. The coating reel is controlled by Wet Rotoclone2983 and then Regenerative Thermal Oxidizer29113N. The drying oven is also controlled by Regenerative Thermal Oxidizer29113N.	EU2983, EU2985, EU29119

**FG2983CoatRTOOff
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Automatic spray application of flavorants onto cereal within a rotating coating reel with associated sugar flash tank followed by a drying oven. The coating reel is controlled by Wet Rotoclone2983. (The Regenerative Thermal Oxidizer29113N is off during operation.)

Emission Unit: EU2983, EU2985, EU29119.

POLLUTION CONTROL EQUIPMENT

Wet Rotoclone2983

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	4.0 tpy	12-month rolling time period as determined at the end of each production month	FG2983CoatRTOOff	SC VI.2 SC VI.3	R 336.1225, R 336.1702(a)
2. Opacity	10 percent	6-minute average	FG2983CoatRTOOff	SC VI.4	R 336.1301(1)(c)
3. PM	0.02 lbs/1000 lbs of exhaust gas	Hourly	FG2983CoatRTOOff	SC VI.4, SC V.3	R 336.1205, R 336.1331(1)(c)
4. PM10	0.571 pph	Hourly	FG2983CoatRTOOff	SC VI.4, SC V.3	R 336.1205, 40 CFR 52.21(c) and (d)
5. PM2.5	0.571 pph	Hourly	FG2983CoatRTOOff	SC VI.4, SC V.3	R 336.1205, 40 CFR 52.21(c) and (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste VOC containing flavoring materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**
2. The permittee shall handle all VOC containing flavoring materials in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1224, R 336.1225, R 336.1702(a))**
3. The permittee shall not operate FG2983CoatRTOOff for more than 8,160 hours per 12-month rolling time period as determined at the end of each production month. **(R 336.1205, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG2983CoatRTOOff unless the wet rotoclone2983 is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of wet rotoclone2983 includes, but is not limited to, operating according to the MAP specified in the ROP. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Upon request from the District Supervisor, the permittee shall verify the VOC content of any VOC containing flavoring materials used in FG2983CoatRTOOff by testing at owner's expense, in accordance with Department requirements. The test shall use a method approved by the District Supervisor as appropriate for the nature of the material to be tested. If the test results and the formulation values should differ, the permittee shall use the test results to determine compliance. **(R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**
2. Upon request from AQD District Supervisor, the permittee shall verify the retention factor from FG2983CoatRTOOff for propylene glycol (CAS No. 57-55-6) by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**
3. Upon request from the AQD District Supervisor, the permittee shall verify the PM, PM10, and PM2.5 emission rates from FG2983CoatRTOOff. All testing shall be conducted at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the Test Method Table below.

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10 / PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) and (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the production month, for the previous production month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each VOC containing flavoring material, including the weight percent of each VOC component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The records shall be maintained on file and made available to the Department upon request. **(R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information on a monthly basis for FG2983CoatRTOOff:
 - a) The reason for RTO being off (e.g., low ethanol content with ethanol content value in each flavorant)
 - b) Date and time of each shutdown of the RTO.
 - c) Date and time of start and stop for each production run of cereal.
 - d) Gallons or pounds (with water) of each flavorant material used.
 - e) VOC content (with water) of each flavorant material, as applied.
 - f) VOC mass emission calculations determining the monthly emission rate in tons per production month as determined at the end of each production month. (A retention factor of 60 percent for specific VOCs may be assumed or the most currently tested retention factor acceptable to the AQD District Supervisor.)
 - g) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each production month. (A retention factor of 60 percent for specific VOCs may be assumed or the most currently tested retention factor acceptable to the AQD District Supervisor.)

The permittee shall keep the records using mass balance or an alternate method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

4. The permittee shall monitor the particulate control equipment to verify proper operation by taking visible emission readings, or checking for abnormal visible emissions, a minimum of once per week (when operating) from each stack identified in VIII below. Either a certified reader or a non-certified observer shall take each visible emission reading or check during routine operating conditions. If abnormal visible emissions are observed, the permittee shall implement the Malfunction Abatement Plan. **(R 336.1205, R 336.1301, R 336.1303, R 336.1910, 40 CFR 52.21 (c) and (d))**
5. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for each stack associated with FG2983CoatRTOOff. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified/non-certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1303, R 336.1910, 40 CFR 52.21 (c) and (d))**
6. The permittee shall keep, in a satisfactory manner, a log of the operating hours per 12-month rolling time period as determined at the end of each production month for FG2983CoatRTOOff. The records shall be kept in a format acceptable to the AQD District Supervisor and shall be made available to the Department upon request. **(R 336.1205, 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. Within 30-days after the completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or authorized agent per Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FG2983CoatRTOOff. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-29113N	30	48	R 336.1205, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FG2983CoatRTOOn
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Automatic spray application of flavorants onto cereal within a rotating coating reel with associated sugar flash tank followed by a drying oven. The coating reel is controlled by Wet Rotoclone2983 and then Regenerative Thermal Oxidizer29113N. The drying oven is also controlled by Regenerative Thermal Oxidizer29113N.

Emission Unit: EU2983, EU2985, EU29119.

POLLUTION CONTROL EQUIPMENT

Wet Rotoclone2983 and Regenerative Thermal Oxidizer 29113N (RTO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	34.0 tpy	12-month rolling time period as determined at the end of each production month	FG2983CoatRTOOn	SC VI.2 SC VI.3	R 336.1225, R 336.1702(a)
2. Opacity	10 percent	6-minute average	FG2983CoatRTOOn	SC VI.4	R 336.1301(1)(c)
3. PM	0.01 lbs/1000 lbs of exhaust gas	Hourly	FG2983CoatRTOOn	SC VI.4, SC V.3	R 336.1205, R 336.1331(1)(c)
4. PM10	0.571 pph	Hourly	FG2983CoatRTOOn	SC VI.4, SC V.3	R 336.1205, 40 CFR 52.21(c) and (d)
5. PM2.5	0.571 pph	Hourly	FG2983CoatRTOOn	SC VI.4, SC V.3	R 336.1205, 40 CFR 52.21(c) and (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste VOC containing flavoring materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**
2. The permittee shall handle all VOC containing flavoring materials in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1224, R 336.1225, R 336.1702(a))**
3. The permittee shall not operate FG2983CoatRTOOn for more than 8,160 hours per 12-month rolling time period as determined at the end of each production month. **(R 336.1205, 40 CFR 52.21(c) and (d))**
4. The permittee shall not operate FG2983CoatRTOOn unless an update to the source-wide malfunction abatement plan (MAP) for Wet Rotoclone2983 and Regenerative Thermal Oxidizer 29113N (RTO), has been submitted within 60 days after commencement of trial operation of FG2983CoatRTOOn, and is implemented and maintained. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d)).**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG2983CoatRTOOn unless the wet rotoclone2983 is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of wet rotoclone2983 includes, but is not limited to, operating according to the MAP specified in the ROP **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
2. The permittee shall not operate FG2983CoatRTOOn unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC capture efficiency of 85 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight) or the minimum combustion zone temperature from the most recent acceptable stack test and maintaining a minimum temperature of **1450 °F** and a minimum retention time of 0.5 seconds. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature on a continuous basis, while the RTO is in use during operation of FG2983CoatRTOOn. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Upon request from the District Supervisor, the permittee shall verify the VOC content of any flavoring material by testing at owner's expense, in accordance with Department requirements. The test shall use a method approved by the District Supervisor as appropriate for the nature of the material to be tested. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the test results and the formulation values should differ, the permittee shall use the test results to determine compliance. **(R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**
2. Within 180 days from commencement of trial operation of FG2983CoatRTOOn, the permittee shall verify the PM, PM10, and PM2.5 emission rates from FG2983CoatRTOOn. All testing shall be conducted at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the Test Method Table below.

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10 / PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) and (d))**

3. Within 180 days from commencement of trial operation of FG2983CoatRTOOn, the permittee shall verify the VOC destruction efficiency of the RTO, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test

results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004)**

4. Within 180 days from commencement of trial operation of FG2983CoatRTOOn, the permittee shall verify the capture efficiency of the FG2983CoatRTOOn, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the production month, for the previous production month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each VOC containing flavoring material, including the weight percent of each VOC component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The records shall be maintained on file and made available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep the following information on a monthly basis for FG2983CoatRTOOn:
 - a) The reason for RTO being on (e.g., high ethanol content with ethanol content value in each flavorant)
 - b) Date and time of each startup and shutdown of the RTO.
 - c) Date and time of start and stop for each production run of cereal.
 - d) Gallons or pounds (with water) of each flavorant material used.
 - e) VOC content (with water) of each flavorant material, as applied.
 - f) VOC mass emission calculations determining the monthly emission rate in tons per production month as determined at the end of each production month. (A retention factor of 60 percent for specific VOCs may be assumed or the most currently tested retention factor acceptable to the AQD District Supervisor.)
 - g) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each production month. (A retention factor of 60 percent for specific VOCs may be assumed or the most currently tested retention factor acceptable to the AQD District Supervisor.)

The permittee shall keep the records using mass balance or an alternate method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

4. The permittee shall monitor the particulate control equipment to verify proper operation by taking visible emission readings, or checking for abnormal visible emissions, a minimum of once per week (when operating) from each stack identified in VIII below. Either a certified reader or a non-certified observer shall take each visible emission reading or check during routine operating conditions. If abnormal visible emissions are observed, the permittee shall implement the Malfunction Abatement Plan. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1303, R 336.1910, 40 CFR 52.21 (c) and (d))**
5. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for each stack associated with FG2983CoatRTOOn. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified/non-certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1301, R 336.1303, R 336.1910, 40 CFR 52.21 (c) and (d))**

- 6. The permittee shall keep, in a satisfactory manner, a log of the operating hours per 12-month rolling time period as determined at the end of each production month for FG2983CoatRTOOn. The records shall be kept in a format acceptable to the AQD District Supervisor and shall be made available to the Department upon request. **(R 336.1205, 40 CFR 52.21(c) and (d))**
- 7. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a temperature monitoring device to continuously monitor and record the combustion chamber temperatures of the RTO, during operation of the RTO portion of FG2983CoatRTOOn. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The records shall be kept in a format acceptable to the AQD District Supervisor and shall be made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

VII. REPORTING

- 1. Within 30-days after the completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or authorized agent per Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FG2983CoatRTOOn. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-29113N	30	48	R 336.1205, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).