

# Air Quality

## PERMIT TO CONSTRUCT

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**Permittee** Fabri-Kal  
**Permit Number** P-2016.0042  
**Project ID** 61755  
**Facility ID** 031-00057  
**Facility Location** 2457 Washington Avenue  
Burley, ID 88318

### Permit Authority

This permit (a) is issued according to the “Rules for the Control of Air Pollution in Idaho” (Rules), IDAPA 58.01.01.200–228; (b) pertains only to emissions of air contaminants regulated by the State of Idaho and to the sources specifically allowed to be constructed or modified by this permit; (c) has been granted on the basis of design information presented with the application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; and (g) in no manner implies or suggests that the Idaho Department of Environmental Quality (DEQ) or its officers, agents, or employees assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment. Changes in design, equipment, or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200–228.

**Date Issued** DRAFT Choose day, Choose year

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**Craig Woodruff, Permit Writer**

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**Mike Simon, Stationary Source Manager**

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# 1 Permit Scope

## Purpose

1.1 This is the initial permit to construct (PTC) an agricultural based plastic packaging manufacturing facility.

## Regulated Sources

Table 1.1 lists all sources of regulated emissions in this permit.

**Table 1.1 Regulated Sources**

Permit Section	Source	Control Equipment
2	<u>Hurst Boilers (2 units):</u> Manufacturer: Hurst Model: S-4-G-150-15ST Maximum heat input rating: 6.3 MMBtu/hr Fuel: natural gas	None
2	<u>Columbia Boiler:</u> Manufacturer: Columbia Model: MPH-80 Maximum heat input rating: 3.4 MMBtu/hr Fuel: natural gas	None
3	<u>Grinder:</u> Manufacturer: Warren and Baerg Manufacturing Model: G254-26 GRINDER Max production rate: 43,000 lb/day	Cyclone
3	<u>Silo:</u> Manufacturer: CST Storage Max Capacity: 8,083 ft <sup>3</sup>	None
3	<u>Extruder:</u> Manufacturer: Polytype OMV Model: D140/E76 Extrusion/Thermoforming In-Line System Max capacity: 2,500 lb/hr	None
4	<u>Emergency Shutdown Heaters (9 units)</u> Manufacturer: Modine Model: PDP-150 Maximum heat input rating: 150 Btu/hr Fuel: natural gas	None
5	<u>Emergency SI Engine:</u> Manufacturer: Olympian Model: G80LG4-80 Maximum horsepower: 127 bhp Displacement: 0.99 L/cylinder Fuel: natural gas	None
N/A	<u>Furnace:</u> Manufacturer: Carrier Model: 4ATTR6042(A1) Maximum heat input rating: 0.06 MMBtu/hr Fuel: natural gas	None

Permit Section	Source	Control Equipment
N/A	<u>Furnace</u> Manufacturer: Carrier Model: 4ATTR6024(A2) Maximum heat input rating: 0.06 MMBtu/hr Fuel: natural gas	None
N/A	<u>Furnace:</u> Manufacturer: Trane Model: ATTR6036 Maximum heat input rating: 0.04 MMBtu/hr Fuel: natural gas	None
N/A	<u>Furnace:</u> Manufacturer: Carrier Model: 4ATTR6030(A4) Maximum heat input rating: 0.06 MMBtu/hr Fuel: natural gas	None
N/A	<u>Infrared Heaters (2 units):</u> Manufacturer: Re-Verber-Ray Model: DET3-60-200 Maximum heat capacity: 200 scf/hr Fuel: natural gas	None
N/A	<u>Make Up Air Unit (4 Units):</u> Manufacturer: Rapid Engineering Model: 4060AM Maximum heat input rating: 4.3 MMBtu/hr Fuel: natural gas	Low NO <sub>x</sub> burners

## 2 Natural Gas-Fired Boilers

### 2.1 Process Description

Boilers are used to supply process heat for material preparation in the cooking tank.

### 2.2 Control Device Descriptions

Table 2.1 Natural Gas-Fired Boilers Description

Emissions Units / Processes	Control Devices	Emission Points
Hurst Boiler	None	B.1
Hurst Boiler	None	B.2
Columbia Boiler	None	B.3

### Emission Limits

#### 2.3 Opacity Limit

Emissions from the two Hurst boilers and the Columbia boiler stack, or any other stack, vent, or functionally equivalent opening associated with the boilers, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

#### 2.4 Particulate Matter Standards

The permittee shall not discharge into the atmosphere from the two boilers particulate matter in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen in accordance with IDAPA 58.01.01.677.

### Operating Requirements

#### 2.5 Allowable Fuel

Natural gas exclusively shall be combusted in the two Hurst boilers and the Columbia boiler.

### 3 Material Processing Equipment

#### 3.1 Process Description

Raw agricultural material is ground using a hammer mill grinder before it is mixed with sodium hydroxide, water, and finally cooked. Polypropylene pellets are vacuum fed from truck or rail car into silos and stored before being vacuum fed into the extruder. The extruders use heat and pressure to form thin plastic sheets from the polypropylene pellets.

#### 3.2 Control Device Descriptions

**Table 3.1 Material Processing Equipment Description**

Emissions Units / Processes	Control Devices	Emission Points
Grinder	Cyclone	Cyclone exhaust
Extruder	None	Vent inside building
Silo	None	Silo vents

### Emission Limits

#### 3.3 Emission Limits

The emissions from the grinder, extruder, and silo stack shall not exceed any corresponding emissions rate limits listed in Table 3.2.

**Table 3.2 Material Processing Equipment Emission Limits**

Source Description	PM <sub>10</sub> <sup>(b)</sup>		VOC
	lb/hr <sup>(c)</sup>	T/yr <sup>(d)</sup>	T/yr <sup>(d)</sup>
Grinder	0.03	0.12	N/A
Extruder	N/A	N/A	0.219
Silo	N/A	N/A	1.445

- a In absence of any other credible evidence, compliance is ensured by complying with permit operating, monitoring, and record keeping requirements.
- b Particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers, including condensable particulate as defined in IDAPA 58.01.01.006.
- c Pounds per hour, as determined by a test method prescribed by IDAPA 58.01.01.157, EPA reference test method, continuous emission monitoring system (CEMS) data, or DEQ-approved alternative.
- d Tons per any consecutive 12-calendar month period.

#### 3.4 Opacity Limit

Emissions from the grinder, extruder, silo stack, or any other stack, vent, or functionally equivalent opening associated with the grinder, extruder, and silo, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

#### 3.5 Reasonable Control of Fugitive Emissions

All reasonable precautions shall be taken to prevent particulate matter from becoming airborne as required in IDAPA 58.01.01.650-651. In determining what reasonable precautions are, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter.

## **Operating Requirements**

### **3.6 Polypropylene Pellet Throughput Limits**

The Silo and Extruder polypropylene pellet throughputs are each limited to a maximum annual throughput of 43,800 T/yr per any consecutive 12 calendar month period.

### **3.7 Agricultural Material Throughput Limits**

The Grinder is limited to a maximum agricultural material throughput of 43,000 lb/day and 15,695,000 T/yr per any consecutive 12 calendar month period.

## **Monitoring and Recordkeeping Requirements**

### **3.8 Polypropylene Pellet Throughput Monitoring**

The permittee shall monitor and record the total amount of polypropylene pellets used in the Extruder and Silo in tons each month and for each consecutive 12 calendar month period.

### **3.9 Agricultural Material Throughput Monitoring**

Each calendar day, the permittee shall monitor and record total throughput of agricultural material in pounds. The permittee shall monitor and record the total amount of agricultural material used in the grinder in tons each month and for each consecutive 12 calendar month period.

### **3.10 Fugitive Dust Recordkeeping Requirements**

The permittee shall monthly record the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive dust emissions from the grinder. A compilation of the most recent five years of records shall be kept onsite and made available to DEQ representatives upon request.

### **3.11 Fugitive Dust Monitoring**

The permittee shall conduct monthly facility-wide inspections of potential sources of fugitive dust emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive dust emissions are effective. If fugitive dust emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive dust emission inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive dust emissions were present (if observed), any corrective action taken in response to the fugitive dust emissions, and the date the corrective action was taken. A compilation of the most recent five years of records shall be kept onsite and made available to DEQ representatives upon request.

## 4 Emergency Shutdown Heaters

### 4.1 Process Description

Emergency shutdown heaters are used for safety measures in emergency situations to shut down the plant activities.

### 4.2 Control Device Descriptions

Table 4.1 Emergency Shutdown Heaters Description

Emissions Units / Processes	Control Devices	Emission Points
Emergency Shutdown Heaters (6 Identical Units)	None	UH-B1, UH-C1, UH-C2, UH-C3, UH-D1, UH-D2
Emergency Shutdown Heaters (3 Identical Units)	None	UH-F1, UH-F2, UH-F3

### Emission Limits

#### 4.3 Opacity Limit

Emissions from the emergency heaters stack, or any other stack, vent, or functionally equivalent opening associated with the emergency heaters, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

### Operating Requirements

#### 4.4 Allowable Fuel

Natural gas exclusively shall be combusted in the nine emergency shutdown heaters.

#### 4.5 Hours of Operation

There is no time limit on the use of emergency shutdown heaters in emergency situations.

## 5 Emergency SI Internal Combustion Engine

### Emission Standards for Owners and Operators

#### 5.1 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

In accordance with 40 CFR 60.4233(e), the permittee must comply with the emission standards in Table 1 of Subpart JJJJ for the emergency spark ignition internal combustion engine.

**Summary of Table 1 to Subpart JJJJ of Part 60—NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP**

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards <sup>a</sup>					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>d</sup>	NO <sub>x</sub>	CO	VOC <sup>d</sup>
Emergency	25<HP<130	1/1/2009	<sup>c</sup> 10	387	N/A	N/A	N/A	N/A

<sup>a</sup>Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

<sup>b</sup>Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.

<sup>c</sup>The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO<sub>x</sub> + HC.

<sup>d</sup>For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

#### 5.2 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

In accordance with 40 CFR 60.4234, the permittee must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

### Other Requirements for Owners and Operators

#### 5.3 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

In accordance with 40 CFR 60.4237(c), the permittee must install a non-resettable hour meter upon startup of the emergency engine.

### Compliance Requirements for Owners and Operators

#### 5.4 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

In accordance with 40 CFR 60.4243(b)(1), the permittee must purchase an engine certified according to procedures specified in this subpart, for the same model year.

In accordance with 40 CFR 60.4243(a)(1), the permittee must operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if the permittee is an owner or

operator. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to the permittee. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the permittee's stationary SI internal combustion engine will not be considered out of compliance.

## **5.5 Emergency Engine Operating Requirement**

In accordance with 40 CFR 60.4243(d), in order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- In accordance with 40 CFR 60.4243(d)(1), there is no time limit on the use of emergency stationary ICE in emergency situations.
- In accordance with 40 CFR 60.4243(d)(2), the permittee may operate their emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).
  - Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
  - Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- In accordance with 40 CFR 60.4243(d)(3), emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.



## General Provisions

### 5.7 What parts of the General Provisions apply to me?

In accordance with 40 CFR 60.4246, the permittee is subject to the General Provision in §§60.1 through §60.19 as summarized in the following table:

**Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ**

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4248.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements		

## 6 General Provisions

### General Compliance

**6.1** The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the “Rules for the Control of Air Pollution in Idaho.” The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit, the “Rules for the Control of Air Pollution in Idaho,” and the Environmental Protection and Health Act (Idaho Code §39-101, et seq.)

[Idaho Code §39-101, et seq.]

**6.2** The permittee shall at all times (except as provided in the “Rules for the Control of Air Pollution in Idaho”) maintain in good working order and operate as efficiently as practicable all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[IDAPA 58.01.01.211, 5/1/94]

**6.3** Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules, and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

### Inspection and Entry

**6.4** Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

- Enter upon the permittee’s premises where an emissions source is located, emissions-related activity is conducted, or where records are kept under conditions of this permit;
- Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

### Construction and Operation Notification

**6.5** This permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year.

[IDAPA 58.01.01.211.02, 5/1/94]

**6.6** The permittee shall furnish DEQ written notifications as follows:

- A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;

- A notification of the date of any suspension of construction, if such suspension lasts for one year or more;
- A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date; and
- A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.03, 5/1/94]

## Performance Testing

- 6.7** If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.
- 6.8** All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.
- 6.9** Within 60 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00 and 4/11/15]

## Monitoring and Recordkeeping

- 6.10** The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Monitoring records shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

## **Excess Emissions**

- 6.11** The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions due to start-up, shut-down, scheduled maintenance, safety measures, upsets, and breakdowns.

[IDAPA 58.01.01.130–136, 4/5/00]

## **Certification**

- 6.12** All documents submitted to DEQ—including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification—shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

## **False Statements**

- 6.13** No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

## **Tampering**

- 6.14** No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

## **Transferability**

- 6.15** This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

## **Severability**

- 6.16** The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.211, 5/1/94]