January 22, 2018

Kevin Esser
IFG-Kamp, LLC
687 Canfield Ave, Suite 100
Coeur d'Alene, ID 83815

Dear Mr. Esser:

Montana Air Quality Permit #2636-05 is deemed final as of January 20, 2018, by the Department of Environmental Quality (Department). This permit is for a lumber mill. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

For
Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

John P. Proulx
Air Quality Specialist
Air Quality Bureau
(406) 444-5391

JM:JPP
Enclosure

Montana Department of Environmental Quality
Air, Energy & Mining Division

Montana Air Quality Permit #2636-05

IFG-Kamp, LLC
687 Canfield Ave, Suite 100
Coeur d'Alene, ID 83815

January 20, 2018

MONTANA AIR QUALITY PERMIT

Issued To: IFG-KAMP, LLC
687 Canfield Ave, Suite 100
Coeur d'Alene, ID 83815

MAQP: #2636-05
Administrative Amendment (AA)
Request Received: 12/11/2017
Department Decision on AA: 1/4/2018
Permit Final: 1/20/2018
AFS #: 061-0004

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to IFG-KAMP, LLC (IFG-K), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

IFG-K owns and operates a lumber mill located in the NW¼ of Section 19, Township 18 North, Range 27 West, in Mineral County, Montana. The facility is located approximately one mile northeast of St. Regis between Montana Highway 135 and the Clark Fork River.

B. Current Permit Action

On December 11, 2017, the Department of Environmental Quality (Department) received an Intent to Transfer Ownership request to transfer ownership of MAQP #2636 from Tricon Timber, LLC. to IFG-KAMP, LLC.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. IFG-K shall install, operate, and maintain a wet scrubber on the wood-fired boiler to control particulate matter (PM) emissions (ARM 17.8.752).

2. PM emissions from the wood-fired boiler shall be limited to 5.6 pounds per hour (lb/hr) (ARM 17.8.752).

3. Carbon monoxide (CO) emissions from the wood-fired boiler shall be limited to 0.75 pounds (lb) per 1000 lb steam produced (ARM 17.8.1204).

4. Steam production from the wood-fired boiler shall be limited to 27,000 lb/hour (ARM 17.8.1204).

5. Total lumber production from the mill shall not exceed 100 million board feet (MMBrd ft) of lumber per rolling 12-month time period (ARM 17.8.749).

6. IFG-K shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

7. IFG-K shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

8. IFG-K shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.7 (ARM 17.8.749).

B. Testing Requirements

IFG-K shall test the wood-fired boiler for PM and demonstrate compliance with the emission limitations contained in Section II.A.2 on an every 4-year basis (ARM 17.8.105).

1. IFG-K shall test the wood-fired boiler for CO and demonstrate compliance with the emission limitation contained in Section II.A.3 on an every 4-year basis (ARM 17.8.105).

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Monitoring Requirements

IFG-K shall continuously monitor and record steam production from the wood-fired boiler to demonstrate compliance with the requirement in Section II.A.4. The monitoring shall provide a record of steam flow from the boiler on an hourly basis (ARM 17.8.749).

D. Operational Reporting Requirements

1. IFG-K shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. IFG-K shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit.

   The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by IFG-K as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

4. IFG-K shall document, by month, the lumber production of the mill. By the 25th day of each month, IFG-K shall total the lumber production for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.5. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

5. IFG-K shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information (ARM 17.8.749 and ARM 17.8.1204).

SECTION III: General Conditions

A. Inspection – IFG-K shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if IFG-K fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving IFG-K of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11) (b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by IFG-K may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis
IFG-KAMP, LLC
MAQP #2636-05

I. Introduction/Process Description

IFG-KAMP, LLC (IFG-K) owns and operates a lumber mill. The facility is located in the NW¼ of Section 19, Township 18 North, Range 27 West, in Mineral County, Montana. The facility is approximately 1 mile northeast of St. Regis between Montana Highway 135 and the Clark Fork River. The facility location is approximately 18 miles west of the Flathead Indian Reservation and 57 miles west of the Mission Mountain Wilderness, both of which are Class I areas with respect to New Source Review.

A. Permitted Equipment

The facility includes, but is not limited to, the following equipment:

- Wood Fired Boiler;
- Lumber Drying Kilns (3);
- Chips Cyclone;
- Chip Bin;
- Sawdust Bin;
- Bark Bin;
- Planer Shavings Bin; and
- Log Debarker.

B. Source Description

IFG-K's lumber mill produces dimensioned lumber from harvested logs. First, the logs are de-barked and trimmed. The de-barked logs are then sent to the mill to be sawn into rough-cut lumber. The rough-cut lumber is then dried in the kilns. The kilns use steam heat provided by the 40 million British thermal unit per hour (MMBtu/hr) wood-fired boiler. Once dried, the rough-cut lumber is sent to the Planer to be finished. Bark, wood chips, sawdust, and planer shavings are sent to storage bins where they are either sold or used as fuel for the boiler.

C. Permit History

On July 11, 1990, Permit **#2636** was issued to Tricon Timber, Inc. (Tricon) for the installation of the 1980 Industrial Boiler Co., (Model 3-5000-150) 40 MMBtu/hr wood-fired boiler at the existing mill. The boiler had a maximum process rate of 32,500 pounds of steam per hour (lb steam/hr) at a maximum fuel combustion rate of 0.5 tons per hour (ton/hr) and was controlled by a multiclone in series with a wet scrubber.

Permit **#2636-01** was issued on September 28, 1994. This permit action corrected errors contained in Permit #2636. The maximum process steam rate of the boiler was corrected from 32,500 lb steam/hr to 26,538 lb steam/hr and the maximum fuel combustion rate of the boiler was corrected from 0.5 tons per hour to 5.0 tons per hour.

Permit **#2636-02** was issued on October 4, 1997. The permit action increased the allowable particulate (PM) emission limit for the wood-fired boiler.

The limit established during the initial permitting of the boiler was based on emission factors from Environmental Protection Agency's (EPA) Compilation of Air Pollutant Emission Factors (AP-42). The emission factors in AP-42 are based on an average emission rate for similar sources with similar controls. Tricon installed the required controls, but even after control system modifications, Tricon was not able to meet the permitted emission limit. Tricon suggested, and the Department of Environmental Quality (Department) agreed, that the replacement of the existing control equipment would not be cost effective. The permit action resulted in a 9.30 ton/yr increase in the allowable PM emissions from the facility. Permit **#2636-02** replaced Permit #2636-01.

Permit #2636-02 was issued on November 29, 1997. The permit action limited the allowable emissions of carbon monoxide (CO) from the wood-fired boiler. Using EPA published emission factors, the boilers Potential to Emit (PTE) CO was above 100 ton/year Title V operating permit threshold. Tricon performed source tests on the boiler and determined that actual emissions were significantly under 100 ton/year. Therefore, Tricon submitted a permit application requesting that a federally enforceable limit be placed in the permit to limit CO emissions below the Title V operating permit threshold.

EPA submitted comments on the preliminary determination. EPA was concerned about the lack of steam monitoring requirements for the wood-fired boiler. In response, a condition was placed in the permit that required Tricon to monitor the steam production from the wood-fired boiler on an hourly basis. Permit **#2636-03** replaced Permit **#2636-02**.

On January 28, 2005, the Department received a Montana Air Quality Permit Application to modify Permit #2636-03 to include a new lumber-drying kiln. The application was deemed complete on March 11, 2005, upon receiving additional information that was requested by the Department. The permit action incorporated the new lumber-drying kiln into the permit. In addition, the emission inventory was updated to include several pieces of existing equipment that were not previously included in the emission inventory. Further, the name on the permit was changed from Tricon Timber, Inc. to Tricon Timber, LLC. Finally, the permit was updated to reflect current permit language and rule references used by the Department. Permit **#2636-04** replaced Permit #2636-03.

D. Current Permit Action

On December 11, 2017, the Department received an Intent to Transfer Ownership request to transfer ownership of MAQP #2636 from Tricon Timber, LLC. to IFG-KAMP, LLC. The permit was updated to reflect current permit language used by the Department. **MAQP #2636-05** replaces MAQP #2636-04.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   IFG-K shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

IFG-K must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, IFG-K shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere PM caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere PM in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR 60.

8. 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This subpart does not apply to the boiler because the boiler was constructed prior to the effective date of Subpart Dc and there is no physical change being made to the boiler. Therefore, Subpart Dc does not apply to the boiler. However, if IFG-K modifies the boiler, 40 CFR 60, Subpart Dc will become applicable.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered and administrative permit change.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis.

The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the PTE greater than 25 tons per year of any pollutant.

IFG-K has a PTE greater than 25 tons per year of PM, particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), oxides of nitrogen (NO_x), CO, and Volatile Organic Compounds (VOC); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative amendment.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving IFG-K of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one year after the permit is issued.

13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

   a. PTE greater than 100 tons per year of any pollutant;

   b. PTE greater than 10 tons per year of any one Hazardous Air Pollutant (HAP), PTE greater than 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

   c. PTE greater than 70 tons per year of PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #2636-05 for IFG-K, the following conclusions were made:

   a. The facility's PTE is less than 100 tons per year for any pollutant.

   b. The facility's PTE is less than 10 tons per year for any one HAP and less than 25 tons per year for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is not subject to any current NSPS.

   e. This facility is not subject to any current NESHAP.

   f. This source is not a Title IV affected source.

   g. This source is not a solid waste combustion unit.

   h. This source is not an Environmental Protection Agency (EPA) designated Title V source.

   IFG-K requested federally enforceable permit limitations to remain a minor source of emissions with respect to Title V. Based on these limitations, the Department determined that this facility is not subject to the Title V Operating Permit Program.

   i. ARM 17.8.1204(3) – The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit the source's PTE.

i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal required by ARM 17.8.1204(3)(a) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

A BACT determination is required for each new or modified source. IFG-K shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

IV. Emission Inventory

	Tons/year					
Source	**PM**	**PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_x**
Wood Fired Boiler	24.53	24.53	38.54	88.70	2.98	4.38
Lumber Drying Kilns (3)	16.50	9.50	---	---	75.00	---
Chips Cyclone	12.90	6.45	---	---	---	---
Chip Bin	17.96	10.42	---	---	---	---
Sawdust Bin	9.19	5.33	---	---	---	---
Bark Bin	7.93	4.60	---	---	---	---
Planer Shavings Bin	10.27	5.96	---	---	---	---
Log Debarking	3.45	1.58	---	---	---	---
Material Handling	0.02	0.01	---	---	---	---
Vehicle Traffic	17.37	6.24	---	---	---	---
Totals	120.12	74.62	38.54	88.70	77.98	4.38

Wood Fired Boiler

Maximum Heat Input: 40 MMBtu/hr (Maximum Design)
Maximum Steam Production: 27,000 lb/hr (Permit Limitation)

PM Emissions

Emission Factor: 5.6 lb/hr (BACT Limit)
Calculations: 5.6 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 24.53 ton/yr

PM_{10} Emissions

Emission Factor: 5.6 lb/hr (BACT Limit)
Calculations: 5.6 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 24.53 ton/yr

NO_x Emissions

Emission Factor: 0.22 lb/MMBtu (AP-42, Table 1.6-2, 09/03)
Calculations: 0.22 lb/MMBtu * 40 MMBtu/hr * 8760 hr/yr * 0.0005 ton/lb = 38.54 ton/yr

CO Emissions

Emission Factor: 0.75 lb/1000 lb steam * 27000 lb steam/hr =
20.25 lb/hr (Permit Limitations)
Calculations: 20.25 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 88.70 ton/yr

VOC Emissions

Emission Factor: 0.017 lb/MMBtu (AP-42, Table 1.6-3, 9/03)
Calculations: 0.017 lb/MMBtu * 40 MMBtu/hr * 8760 hr/yr * 0.0005 ton/lb = 2.98 ton/yr

SO_x Emissions

Emission Factor: 0.025 lb/MMBtu (AP-42, Table 1.6-2, 9/03)
Calculations: 0.025 lb/MMBtu* 40 MMBtu/hr * 8760 hr/yr * 0.0005 ton/lb = 4.38 ton/yr

Lumber Drying Kilns (3)

Annual Capacity: 100 MMBrd ft/yr (Combined Total)(Company Information)

PM Emissions

Emission Factor: 0.33 lb/1000 brd ft (Idaho DEQ)
Calculations: 0.33 lb/1000 brd ft * 100 MMBrd ft/yr * 0.0005 ton/lb = 16.50 ton/yr

PM_{10} Emissions

Emission Factor: 0.19 lb/1000 brd ft (Idaho DEQ)
Calculations: 0.19 lb/1000 brd ft * 100 MMBrd ft/yr * 0.0005 ton/lb = 9.50 ton/yr

VOC Emissions

Emission Factor: 1.50 lb/1000 brd ft (Idaho DEQ)
Calculations: 1.50 lb/1000 brd ft * 100 MMBrd ft/yr * 0.0005 ton/lb = 75.00 ton/yr

Chips Cyclone

Annual Capacity: 100 MMBrd ft/yr (Company Information)
Material Balance Factor: 0.516 dry tons/MBrd ft (Wood and Bark as Fuel, Stanley E. Corder, Research Bulletin 14, Oregon State University)

PM Emissions

Emission Factor: 0.50 lb/dry ton (Idaho DEQ)
Calculations: 0.50 lb/dry ton * 0.516 dry ton/MBrd ft * 100 MMBrd ft/yr * 0.0005 ton/lb = 12.90 ton/yr

PM_{10} Emissions

Emission Factor: 0.25 lb/dry ton (Idaho DEQ)
Calculations: 0.25 lb/dry ton * 0.516 dry ton/MBrd ft * 100 MMBrd ft/yr * 0.0005 ton/lb = 6.45 ton/yr

Chips Bin

Material Balance Factor: 0.516 dry ton/MBrd ft (Wood and Bark as Fuel, Stanley E. Corder, Research Bulletin 14, Oregon State University)

Moisture Content: 45% (Assumed)
Mill Annual Capacity: 100 MMBrd ft/yr (Company Information)
Annual Throughput (Dry): 0.516 dry ton/MBrd ft * 100 MMBrd ft/yr = 51,600 dry ton/yr
Annual Throughput (Wet): 51,600 dry ton/yr * 0.45 + 51,600 = 74,820 wet ton/yr
Control Efficiency: 52% for 45% moisture content (Idaho DEQ)

PM Emissions

Emission Factor: 1.0 lb/ton (Idaho DEQ)
Calculations: 1.0 lb/ton * 74,820 ton/yr * 0.0005 ton/lb (1.0 – 0.52) = 17.96 ton/yr

PM_{10} Emissions

Emission Factor: 0.58 lb/ton (Idaho DEQ)
Calculations: 0.58 lb/ton * 74,820 ton/yr * 0.0005 ton/lb (1.0 – 0.52) = 10.42 ton/yr

Sawdust Bin

Material Balance Factor: 0.264 dry ton/MBrd ft (Wood and Bark as Fuel, Stanley E. Corder, Research Bulletin 14, Oregon State University)
Moisture Content: 45% (Assumed)
Mill Annual Capacity: 100 MMBrd ft/yr (Company Information)
Annual Throughput (Dry): 0.264 dry ton/MBrd ft * 100 MMBrd ft/yr = 26,400 dry ton/yr
Annual Throughput (Wet): 26,400 dry ton/yr * 0.45 + 26,400 = 38,280 wet ton/yr
Control Efficiency: 52% for 45% moisture content (Idaho DEQ)

PM Emissions

Emission Factor: 1.0 lb/ton (Idaho DEQ)
Calculations: 1.0 lb/ton * 38,280 ton/yr * 0.0005 ton/lb (1.0 – 0.52) = 9.19 ton/yr

PM_{10} Emissions

Emission Factor: 0.58 lb/ton (Idaho DEQ)
Calculations: 0.58 lb/ton * 38,280 ton/yr * 0.0005 ton/lb (1.0 – 0.52) = 5.33 ton/yr

Bark Bin

Material Balance Factor: 0.228 dry ton/MBrd ft (Wood and Bark as Fuel, Stanley E. Corder, Research Bulletin 14, Oregon State University)
Moisture Content: 45% (Assumed)
Mill Annual Capacity: 100 MMBrd ft/yr (Company Information)
Annual Throughput (Dry): 0.228 dry ton/MBrd ft * 100 MMBrd ft/yr = 22,800 dry ton/yr
Annual Throughput (Wet): 22,800 dry ton/yr * 0.45 + 22,800 = 33,060 wet ton/yr
Control Efficiency: 52% for 45% moisture content (Idaho DEQ)

PM Emissions

Emission Factor: 1.0 lb/ton (Idaho DEQ)
Calculations: 1.0 lb/ton * 33,060 ton/yr * 0.0005 ton/lb (1.0 – 0.52) = 7.93 ton/yr

PM_{10} Emissions

Emission Factor: 0.58 lb/ton (Idaho DEQ)
Calculations: 0.58 lb/ton * 33,060 ton/yr * 0.0005 ton/lb (1.0 – 0.52) = 4.60 ton/yr

Planer Shavings Bin

Material Balance Factor: 0.192 dry tons/MBrd ft (Wood and Bark as Fuel, Stanley E. Corder, Research Bulletin 14, Oregon State University)
Moisture Content: 7% (Assumed—Kiln Dried)
Mill Annual Capacity: 100 MMBrd ft/yr (Company Information)
Annual Throughput (Dry): 0.192 dry ton/MBrd ft * 100 MMBrd ft/yr = 19,200 dry ton/yr
Annual Throughput (Wet): 19,200 dry ton/yr * 0.07 + 19,200 = 20,544 wet ton/yr
Control Efficiency: 0% for 7% moisture content (Idaho DEQ)

PM Emissions

Emission Factor: 1.0 lb/ton (Idaho DEQ)
Calculations: 1.0 lb/ton * 20,544 ton/yr * 0.0005 ton/lb (1.0 – 0.00) = 10.27 ton/yr

PM_{10} Emissions

Emission Factor: 0.58 lb/ton (Idaho DEQ)
Calculations: 0.58 lb/ton * 20,544 ton/yr * 0.0005 ton/lb (1.0 – 0.00) = 5.96 ton/yr

Log Debarking

Material Balance Factor: 1.98 dry ton/MBrd ft (Wood and Bark as Fuel, Stanley E. Corder, Research Bulletin 14, Oregon State University)
Moisture Content: 45% (Assumed—Kiln Dried)
Mill Annual Capacity: 100 MMBrd ft/yr (Company Information)
Annual Throughput (Dry): 1.98 dry ton/MBrd ft * 100 MMBrd ft/yr = 198,000 dry ton/yr
Annual Throughput (Wet): 198,000 dry ton/yr * 0.45 + 198,000 = 287,100 wet ton/yr

PM Emissions

Emission Factor: 0.024 lb/ton (Idaho DEQ)
Calculations: 0.024 lb/ton * 287,100 ton/yr * 0.0005 ton/lb = 3.45 ton/yr

PM_{10} Emissions

Emission Factor: 0.011 lb/ton (Idaho DEQ)
Calculations: 0.011 lb/ton * 287,100 ton/yr * 0.0005 ton/lb = 1.58 ton/yr

Material Handling

PM Emissions

Emission Factor$_{green}$: $EF_g(lb/ton) = (k * 0.0032) * ((U/5)^{1.3} / (M/2)^{1.4})$ (AP-42, 13.2.4, 1/95)
$EF_g = (0.74 * 0.0032) * ((10/5)^{1.3} / 45/2)^{1.4})$
EF_g = 7.46E-05 lb/ton

Chip Annual Throughput: 74,820 wet ton/yr (See Chip Bin Calculations)
Chip Calculations: 7.46 E-05 lb/ton * 74,820 ton/yr * 0.0005 ton/lb = 2.79E-03 ton/yr

Sawdust Annual Throughput: 38,280 wet ton/yr (See Sawdust Bin Calculations)
Sawdust Calculations: 7.46 E-05 lb/ton * 38,280 * 0.0005 ton/lb = 1.43E-03 ton/yr

Bark Annual Throughput: 33,060 wet ton/yr (See Bark Bin Calculations)
Bark Calculations: 7.46 E-05 lb/ton * 33,060 * 0.0005 ton/lb = 1.23E-03 ton/yr

Emission Factor$_{dry}$: $EF_d(lb/ton) = (k * 0.0032) * ((U/5)^{1.3} / (M/2)^{1.4})$ (AP-42, 13.2.4, 1/95)
$EF_d = (0.74 * 0.0032) * ((10/5)^{1.3} / 7/2)^{1.4})$
EF_d = 1.01 E-03 lb/ton

Shavings Throughput: 20,544 wet ton/yr (See Planer Shavings Bin Calculations)
Shavings Calculations: 1.01E-03 lb/ton * 20,544 * 0.0005 ton/lb = 1.04E-02 ton/yr

Total Material Handling: chip + sawdust + bark + shavings
2.79E-03 ton/yr + 1.43E-03 ton/yr + 1.23E-03 ton/yr +
1.04E-02 ton/yr = 0.02 ton/yr

PM_{10} Emissions

Emission Factor$_{green}$: EF_g(lb/ton) = (k * 0.0032) * ((U/5)$^{1.3}$ / (M/2)$^{1.4}$)(AP-42, 13.2.4, 1/95)
EF_g = (0.35 * 0.0032) * ((10/5)$^{1.3}$ / 45/2)$^{1.4}$)
EF_g = 3.53E-05 lb/ton

Chip Annual Throughput: 74,820 wet ton/yr (See Chip Bin Calculations)
Chip Calculations: 3.53E-05 lb/ton * 74,820 ton/yr * 0.0005 ton/lb = 1.32E-03 ton/yr

Sawdust Annual Throughput: 38,280 wet ton/yr (See Sawdust Bin Calculations)
Sawdust Calculations: 3.53E-05 lb/ton * 38,280 * 0.0005 ton/lb = 6.76E-04 ton/yr

Bark Annual Throughput: 33,060 wet ton/yr (See Bark Bin Calculations)
Bark Calculations: 3.53E-05 lb/ton * 33,060 * 0.0005 ton/lb = 5.84E-04 ton/yr

Emission Factor$_{dry}$: EF_d(lb/ton) = (k * 0.0032) * ((U/5)$^{1.3}$ / (M/2)$^{1.4}$) (AP-42, 13.2.4, 1/95)
EF_d = (0.35 * 0.0032) * ((10/5)$^{1.3}$ / 7/2)$^{1.4}$)
EF_d = 4.77E-04 lb/ton

Shavings Throughput: 20,544 wet ton/yr (See Planer Shavings Bin Calculations)
Shavings Calculations: 4.77E-04 lb/ton * 20,544 * 0.0005 ton/lb = 4.90-03 ton/yr

Total Material Handling: chip + sawdust + bark + shavings
1.32E-03 ton/yr + 6.76E-04 ton/yr + 5.84E-04 ton/yr + 4.90E-03 ton/yr = 0.01 ton/yr

Vehicle Traffic

PM Emissions

Emission Factor$_{Trucks}$: EF_t (lb/VMT) = k(5.9)(s/12)(S/30)(W/3)$^{0.7}$(w/4)$^{0.5}$(365-p/365)
EF_t = 1.0(5.9)(12/12)(5/30)(20/3)$^{0.7}$(18/4)$^{0.5}$(365-120/365)
EF_t = 5.28 lb/VMT

Residual Wood Trucks
Miles Traveled: 4472 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 5.28 lb/VMT * 4472 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 5.90 ton/yr

Lumber Trucks
Miles Traveled: 2087 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 5.28 lb/VMT * 2087 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 2.76 ton/yr

Log Trucks
Miles Traveled: 3828 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 5.28 lb/VMT * 3828 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 5.05 ton/yr

Emission Factor$_{Loader}$: EF_L (lb/VMT) = k(5.9)(s/12)(S/30)(W/3)$^{0.7}$(w/4)$^{0.5}$(365-p/365)
EF_L = 1.0(5.9)(12/12)(5/30)(15/3)$^{0.7}$(4/4)$^{0.5}$(365-120/365)
EF_L = 2.04 lb/VMT

Log Loader
Miles Traveled: 7177 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 2.04 lb/VMT * 7177 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 3.66 ton/yr

Total Vehicle Traffic: wood trucks + lumber trucks + log trucks + log loader
5.90 ton/yr + 2.76 ton/yr + 5.05 ton/yr + 3.66 ton/yr = 17.37 ton/yr

PM_{10} Emissions

Emission Factor$_{Trucks}$: EF_t (lb/VMT) = k(5.9)(s/12)(S/30)(W/3)$^{0.7}$(w/4)$^{0.5}$(365-p/365)
EF_t = 0.36(5.9)(12/12)(5/30)(20/3)$^{0.7}$(18/4)$^{0.5}$(365-120/365)
EF_t = 1.90 lb/VMT

Residual Wood Trucks
Miles Traveled: 4472 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 1.90 lb/VMT * 4472 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 2.12 ton/yr

Lumber Trucks
Miles Traveled: 2087 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 1.90 lb/VMT * 2087 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 0.99 ton/yr

Log Trucks
Miles Traveled: 3828 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 1.90 lb/VMT * 3828 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 1.82 ton/yr

Emission Factor$_{Loader}$: EF_L (lb/VMT) = k(5.9)(s/12)(S/30)(W/3)$^{0.7}$(w/4)$^{0.5}$(365-p/365)
EF_L = 0.36(5.9)(12/12)(5/30)(15/3)$^{0.7}$(4/4)$^{0.5}$(365-120/365)
EF_L = 0.73 lb/VMT

Log Loader
Miles Traveled: 7177 mile/yr
Control Efficiency: 50% (Water or Chemical Dust Suppressant)
Calculations: 0.73 lb/VMT * 7177 mile/yr * 0.0005 ton/lb * (1.0-0.50) = 1.31 ton/yr
Total Vehicle Traffic: wood trucks + lumber trucks + log trucks + log loader
2.12 ton/yr + 0.99 ton/yr + 1.82 ton/yr + 1.31 ton/yr = 6.24 ton/yr

V. Existing Air Quality

IFG-K is located in the NW¼ of Section 19, Township 18 North, Range 27 West, in Mineral County, Montana. This area is considered attainment for all criteria pollutants.

VI. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #2636-05, the Department determined that there will be no impacts from this permitting action. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

VIII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared by: John P. Proulx
Date: December 15, 2017