AIR QUALITY PERMIT

Issued to: Pyramid Mountain Lumber, Inc.
P.O. Box 549
Seeley Lake, MT 59868

Permit: #2965-01
Application Complete: 08/04/00
Preliminary Determination Issued: 08/23/00
Department Decision Issued: 09/25/00
Permit Final: 10/11/00
AFS #: 063-0004

An air quality permit, with conditions, is hereby granted to Pyramid Mountain Lumber, Inc. (Pyramid), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.701, *et seq*., as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

The Pyramid lumber mill is located at Southwest ¼, Section 3, Township 16 North, Range 15 West, Missoula County, near Seeley Lake, Montana.

B. Permitted Facility

A list of permitted equipment can be found in the permit analysis section of this permit.

C. Current Permit Action

Pyramid submitted a permit application for the addition of a second York/Shipley boiler to the facility located near Seeley Lake, Montana. The new 12,000-lb/hr boiler will assist the other boilers in providing steam to the facility. Pyramid also requested an increase in the capacity of the dry kilns. Furthermore, Pyramid requested that the Department of Environmental Quality (department) reduce the carbon monoxide (CO) emission limits on the facility's currently permitted Wellons and York/Shipley boilers. The boilers were originally permitted using emission factors for "stoker boilers." The Wellons boiler is actually better described as a “fuel cell boiler.” The York/Shipley boilers are better described as “Dutch oven boilers.” The potential emissions from this facility initially indicated that this facility was a major source for New Source Review (NSR). However, the original potential emissions were based on incorrect emission factors. This facility is not a major source for NSR and was not a major source prior to this permit action.

SECTION II: Conditions and Limitations

A. Emission Control Requirements

1. Pyramid shall not cause or authorize the production, handling, transport, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308[1]).

2. Pyramid 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[2]).

3. Pyramid shall treat all unpaved portions of the haul roads, access roads, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precaution limitations in Section II.A.1 and 2 (ARM17.8.710).

B. Emission Limitations

1. Pyramid shall not 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 (ARM 17.8.304[2] and 17.8.715).

2. Pyramid shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304[1]).

3. Particulate matter emissions from the Wellons Boiler are limited to 0.2 lb/MMBtu of hog fuel fired (ARM 17.8.710).

4. The Wellons Boiler is limited to 24.0 lbs/hr of CO emissions (ARM 17.8.710).

5. The York/Shipley 6,000-lb/hr Boiler is limited to 6.0 lbs/hr of CO emissions (ARM 17.8.710).

6. The York/Shipley 12,000-lb/hr Boiler is limited to 4.8 lbs/hr of PM-10 emissions (ARM 17.8.715).

7. The York/Shipley 12,000-lb/hr Boiler is limited to 12.1 lbs/hr of CO emissions (ARM 17.8.710).

C. Testing Requirements

1. The Wellons Boiler shall be tested for CO within 180 days of issuance of permit #2965-01 to verify compliance with permit condition II.B.4 (ARM 17.8.105 and ARM 17.8.710).

2. The York/Shipley 6,000-lb/hr Boiler shall be tested for CO within 180 days of issuance of permit #2965-01 to verify compliance with permit condition II.B.5 (ARM 17.8.105 and ARM 17.8.710).

3. The York/Shipley 12,000-lb/hr Boiler shall be tested for PM-10 within 180 days of start-up to verify compliance with permit condition II.B.6 (ARM 17.8.105 and ARM 17.8.710).

4. The York/Shipley 12,000-lb/hr Boiler shall be tested for CO within 180 days of start-up to verify compliance with permit condition II.B.7. The testing shall continue on an every-5-year basis or according to another testing/monitoring schedule as may be approved by the department (ARM 17.8.105 and ARM 17.8.710)

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

6. The department may require additional testing (ARM 17.8.105).

D. Operational and Emission Inventory Reporting Requirements

1. Pyramid 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 for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Pyramid shall notify the department of any construction or improvement project conducted pursuant to ARM 17.8.705(1)(r) 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 17.8.705(1)(r)(iv) (ARM 17.8.705).

3. All records compiled in accordance with this permit must be maintained by Pyramid 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 17.8.710).

E. Notification Requirements

Pyramid shall provide the department (both the Missoula regional and the Helena offices) with written notification of the following dates within the following time periods (ARM 17.8.710 and 340):

1. Date of commencement of construction of the York/Shipley 12,000-lb/hr Boiler within 30 days after commencement of construction.

2. Actual date of start-up of the of the York/Shipley 12,000-lb/hr Boiler within 15 days after the actual start-up date.

3. 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 (ARM 17.8.705).

SECTION III: General Conditions

A. Inspection - Pyramid 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 all the terms, conditions, and matters stated herein shall be deemed accepted if Pyramid fails to appeal as indicated below.

C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Pyramid of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.701, *et seq.* (ARM 17.8.717).

D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement 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 therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The department's decision on the application is not final unless 15 days have elapsed and there is no

request for a hearing under this section. The filing of a request for a hearing postpones the effective date of the department's decision until the conclusion of the hearing and issuance of a final decision by the Board.

F. Permit Inspection - As required by ARM 17.8.716, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by department personnel at the location of the permitted source.

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

Permit Analysis

Pyramid Mountain Lumber, Inc.

Permit #2965-01

I. Introduction/ Process Description

A. Site Location

The facility is located in the Southwest ¼ of Section 3, Township 16 North, Range 15 West, Missoula County, Montana.

B. Source Description

Pyramid operates a sawmill that produces planed, dimension lumber. Logs from an on-site storage deck are debarked, cut into rough sizes, dried, planed to proper dimension, and stacked in bundles for shipment. There is also a moulder to produce tongue and groove lumber at the facility.

Two hog fuel-fired boilers provide heat for the drying process. Hogged bark is chain conveyed to a storage pile. From the storage pile, the bark is loaded onto a chain conveyor and transferred to the fuel storage silo above the Wellons Boiler. Hogged bark is also loaded into trucks and transferred to the York/Shipley boiler where it is metered into the boiler from the truck. All excess hogged bark is sold and trucked off the facility.

Sawdust is chain conveyed into a storage pile. The sawdust is loaded into trucks and transferred off the facility. Planer shavings and chips are pneumatically conveyed and collected in an enclosed storage bin where it can be transported into trucks and sold for other purposes.

The equipment associated with this facility, permitted under permit #2965-01, is listed below.

1. Sawmill

The sawmill operations include debarking, sawing, and chipping. The raw logs are brought from the log storage area and are fed into the debarker where the bark is removed. From the debarkers, the logs are conveyed to various pieces of equipment for further processing, depending on size constraints. The wood waste generated from the debarking operations is conveyed to designated storage locations.

2. Wellons Boiler

The Wellons hog fuel-fired boiler has a maximum rated design capacity of 18,000 pounds of steam per hour. This steam provides heat for the kilns that dry lumber. This source was installed in 1976. The average process rate is 10,200 pounds of steam per hour. The Wellons boiler is estimated to have a 65% operational efficiency. The average fuel combustion rate is 2.12 tons/hr and the maximum rated design capacity is 3.75 tons/hr. Particulate emissions are controlled by a multiclone. Emissions were estimated using AP-42 emission factors, which assume a 4,500-Btu/lb higher heating value. Actual heat content of the hog fuel will vary.

3. 6,000-lb/hr York/Shipley Boiler

The York/Shipley hog fuel-fired boiler has a maximum rated design capacity of 6,000 pounds of steam per hour. This steam provides heat for the kilns that dry lumber. This source was installed in 1988. The average process rate is 3,400 pounds of steam per hour. The York/Shipley boiler is estimated to have a 65% operational efficiency. The average fuel combustion rate is 0.71 tons/hr and the maximum rated design capacity is 1.23 tons/hr. Particulate emissions from the York/Shipley Boiler are controlled by a cyclone. Emissions were estimated using AP-42 emission factors, which assume a 4,500-Btu/lb higher heating value. Actual heat content of the hog fuel will vary.

4. 12,000-lb/hr York/Shipley Boiler

The York/Shipley hog fuel-fired boiler has a maximum rated design capacity of 12,000 pounds per hour of steam. This steam provides heat for the kilns that dry lumber. This source's anticipated installation date is the year 2000. The York/Shipley boiler is estimated to have a 65% operational efficiency. The estimated maximum rated design capacity for fuel combustion is 2.3 tons/hr. Particulate emissions from the York/Shipley Boiler will be controlled by approximately 70%. The permit limit (reflecting the 70% control) was determined by reducing uncontrolled emissions calculated with the February 1999 AP-42 uncontrolled emission factor (as discussed in the BACT analysis for Permit #2965-01) by 70%. The AP-42 emission factors assume a 4,500-Btu/lb higher heating value. Actual heat content of the hog fuel will vary.

5. Dry Kilns

There are six dry kilns, which were installed sometime in the period between 1968 through 1998. Lumber from the sawmill is placed in the kilns and dried before it is planed. Maximum rated design capacity for the kilns is 100 MMbdft/yr; the average process rate is approximately 12 Mbdft/hr.

6. Chipping

Chipping operations occur at various stages within the process. The chips are conveyed to bins and silos for storage. The bins and silos have cyclones to control particulate during the operation (Chip Bin Cyclone and Chip Silo Cyclone).

7. Moulder and Planer

These operations each occur following the sawing and chipping operations. Each area consists of conveyors and cyclones to control particulate during operations (Moulder: Moulder Surge Bin Cyclone, Moulder Shavings Bin Cyclone; Planer: A-63 Planer Shavings Cyclone, A-62 Planer Shavings Cyclone, and Blow-Hog Sawdust Cyclone).

8. Surge and Shavings Bins

These areas are used for handling and storing wood waste material. Each bin has a cyclone to control particulate during transfer of material (Shavings Bin Cyclone used in conjunction with the Moulder and Planer Cyclones listed above).

9. Fugitive Emissions

Log trucks enter the facility to unload raw logs for processing. Heavy equipment and mobile machinery are used to transfer the logs to the processing operations and light duty vehicles are used to monitor the mill processing operations. A watering program is employed to control fugitive emissions resulting from the vehicle traffic.

C. Permit History

This facility obtained a Missoula County permit on June 5, 1985. Upon determination that this facility was a Title V source, a state of Montana preconstruction permit was required. Missoula County did not have authority to issue Title V permits and relinquished preconstruction authority for these sources. Also, Pyramid was identified as having the potential to emit greater than 250 tons per year of carbon monoxide (CO), which is defined as a major source according to the New Source Review (NSR) program.

On July 29, 1998, Pyramid was issued permit **#2965-00**. The permit action involved transferring permitting responsibility from the Missoula City-County Health Department to the Department of Environmental Quality (department). During a Title V review, it was determined that Pyramid was a major facility and permitting authority belonged with the department rather than the Missoula City-County Health Department. Permit #2965-00 replaced the Missoula City-County Health Department permit for the facility.

D. Current Permit Action

Pyramid submitted a permit application for the addition of a second York/Shipley

Boiler to the facility located near Seeley Lake, Montana. The new 12,000-lb/hr boiler will assist the other boilers in providing steam to the facility. Pyramid also requested an increase in the capacity of the dry kilns. Furthermore, Pyramid requested that the department reduce the CO emission limits on the facility's currently permitted Wellons and York/Shipley Boilers. The boilers were originally permitted using emission factors for "stoker boilers" rather than "fuel-cell boilers." The potential emissions from this facility initially indicated that this facility was a major source for NSR. However, the original potential emissions were based on incorrect emission factors. This facility is not a major source for NSR and was not prior to this permit action. During the public comment period, it was brought to the attention of the department that the permit application mistakenly identified the new York/Shipley Boiler as a 10.0-MMBtu/hr boiler, instead of a 12,000-lb/hr boiler (22.2 MMBtu/hr boiler). Corrections were made in the Department Decision to reflect that change. Permit **#2965-01** will replace permit #2965-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT) 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 locations 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 section 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 emissions 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*., MCA.

Pyramid 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 which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

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

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213 Ambient Air Quality Standard for Ozone
5. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
6. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
7. ARM 17.8.221 Ambient Air Quality Standard for Visibility
8. ARM 17.8.222 Ambient Air Quality Standard for Lead
9. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}
10. ARM 17.8.230 Fluoride in Forage

Pyramid 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 to an 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 section requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this section, Pyramid 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 section requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

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

5. ARM 17.8.315 Odors. This rule requires that no person shall cause, suffer, or allow any emissions of gases, vapors, or odors beyond his property line in such manner as to create a public nuisance. A person operating any business or using any machine, equipment, device, facility or process which discharges into the outdoor air any odorous matter or vapors, gases, dusts, or any combination thereof which create odors, shall provide, properly install, and maintain in good working order and operation such odor control devices or procedures as may be specified by the department.

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

7. ARM 17.8.324(3) Hydrocarbon Emissions--Petroleum Products. 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 a tank is equipped with a vapor loss control device as described in (1) of this rule, or is a pressure tank as described in (1) of this rule.

8. ARM 17.8.340 Standard of Performance for New Stationary Sources. This section incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is an NSPS affected source because the proposed York/Shipley boiler meets the definition of 40 CFR Part 60 Subpart Dc.

   40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This subpart does not apply to the existing boilers because they were installed before June 9, 1989. However, this subpart will apply to the proposed 12,000-lb/hr York/Shipley Boiler.

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 section 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. Pyramid submitted the appropriate permit application fee for the current permit action.

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; and 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 which pro-rate 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 17.8.701 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.704 General Procedures for Air Quality Preconstruction Permitting. This air quality preconstruction permit contains requirements and conditions applicable to both construction and subsequent use of the permitted equipment.

3. ARM 17.8.705 When Permit Required--Exclusions. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter, or use an air contaminant source which has the potential to emit more than 25 tons per year of any pollutant. Pyramid has the potential to emit more than 25 tons per year of total particulate, PM-10, NO_x, VOC and CO; therefore, a permit is required.

4. ARM 17.8.706 New or Altered Sources and Stacks--Permit Application Requirements. This section requires that a permit application be submitted prior to installation, alteration or use of a source. Pyramid submitted the appropriate permit application for the current permit action.
5. ARM 17.8.710 Conditions for Issuance of Permit. This section requires that Pyramid demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. Pyramid has demonstrated compliance with applicable

rules and standards as required for permit issuance.

6. ARM 17.8.715 Emission Control Requirements. This section requires a source to install the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT review was conducted for the current permit action and is discussed in Section IV of the permit analysis.

7. ARM 17.8.716 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.

8. ARM 17.8.717 Compliance with Other Statutes and Rules. This rule states that nothing in the permit shall be construed as relieving Pyramid of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.101, *et seq*.

9. ARM 17.8.720 Public Review of Permit Applications. This rule requires that Pyramid notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Pyramid submitted an affidavit of publication on April 6, 2000 from the *Seeley Swan Pathfinder*, a newspaper of general circulation printed and published at Seeley Lake, as proof of compliance with the public notice requirements. The notice was published on March 16, 2000.

10. ARM 17.8.731 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 altered 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 1 year after the permit is issued.

11. ARM 17.8.733 Modification of Permit. An air quality permit may be modified for changes in any applicable rules and standards adopted by the board, or changed conditions of operation at a source or stack which do not result in an increase in emissions because of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

12. ARM 17.8.734 Transfer of Permit. This section states 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 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

Pyramid is not a listed source, and after the correction of equipment classification and emission factors from "stoker boilers" to "fuel-cell boilers," Pyramid will not be identified as a major source. Therefore, a PSD review is not required.

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 stationary source having:

   a. Potential to Emit (PTE) > 10 tons/year of any one hazardous air pollutant (HAP),

   b. PTE > 25 tons/year of a combination of all HAPs,

   c. Lesser quantity as the department may establish by rule,

   d. PTE > 100 tons/year of any pollutant,

   e. Sources with the PTE > 70 tons/year of PM-10 in a serious PM-10 nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (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. Pyramid submitted a Title V operating permit application on 03/21/97, which was deemed administratively complete on 04/25/97. The Title V operating permit (OP2965-00) was issued as final on January 2, 1999.

III. BACT Determination

A BACT determination is required for each new or altered source. Pyramid shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that best available control technology shall be utilized.

For the 12,000-lb/hr York/Shipley Boiler, particulates were of main concern. BACT for both NO_x and CO were determined to be the use of proper combustion procedures for the boiler. For particulates, the technically feasible options considered were a multiclone, a cyclone, and no add-on controls (proper combustion). Proper combustion was not considered further because similar facilities in the State have been permitted with specific control measures and additional levels of control. The multiclone and the

cyclone were assumed initially to have control efficiencies of 70 and 50%, respectively. Using these assumed control efficiencies with the calculated capital recovery factors, yields cost-effectiveness values of approximately $410/ton and $125/ton for the multiclone and cyclone, respectively. The multiclone would be more cost prohibitive than the cyclone, particularly since a cyclone would be included with the purchase of the proposed boiler.

Pyramid currently operates a York/Shipley boiler with a cyclone that is very similar to the proposed York/Shipley boiler and cyclone. Based on comparisons between testing done on the existing boiler and cyclone, the emission control system appears to be achieving greater than the 70% control estimated by the use of a multiclone. Particulate emissions from the York/Shipley Boiler will be controlled by approximately 70%. The "70% control" was determined by reducing the uncontrolled emissions (calculated using the February 1999 AP-42 uncontrolled emission factor) by 70%. Therefore, instead of specifying equipment for BACT, the department is including a particulate limit, based on the theoretical 70% control level for the 12,000-lb/hr York/Shipley Boiler, as a permit condition.

IV. Emission Inventory

Estimated Potential Emissions Inventory (tons/year)

Source		PM-10	SO_x	NO_x	VOC	CO
01	Wellons Hog Fuel-Fired Boiler	29.1	1.2	6.1	2.9	105.6
02	York/Shipley 6,000-lbs/hr Boiler	29.4	0.4	8.0	1.2	26.5
03	York/Shipley 12,000-lb/hr Boiler	20.8	0.8	16.0	2.3	53.0
04	6 Dry Kilns	8.0			83.5	
05	Chip Bin Cyclone	3.0				
06	Chip Silo Cyclone	1.3				
07	Planer A-63 Surge Bin Cyclone	9.0				
08	Planer A-62 Surge Bin Cyclone	7.8				
09	Blow – Hog Dust Cyclone	1.1				
10	Moulder Surge Bin Cyclone	2.0				
11	Moulder Shavings Bin Cyclone	3.2				
12	Shavings Bin Cyclone	7.3				
13	Material Handling Fugitives	0.2				
14	Sawdust Storage Pile Fugitives	0.6				
15	Hog Fuel Storage Pile Fugitives	0.2				
16	Unpaved Road Dust Emissions	11.9				
17	Plant-Wide Diesel Combustion	1.8	2.3	35.5	1.8	7.6
18	Plant-Wide Gasoline Combustion	5.6	0.1	1.4	1.1	55.7
19	Plant-Wide Propane Combustion	1.4E-03	2.0E-03	4.9E-02	1.8E-03	6.7E-03
Total Emissions (tons/year)		142.3	4.8	67.0	92.8	248.4

Source 01: Wellons Hogged Fuel-Fired Boiler

Efficiency: 65%
Steam Output Capacity: 18000 lbs/hr
Steam Input Capacity: 18000 lbs steam/hr * 1200 Btu/lb steam * 1/0.65 = 33,230,769 Btu/hr = 33.2 MMBtu/hr
PM-10 Emissions:
Emission Factor: 0.20 lbs/MMBTU {MCCAPCAP Permit, includes control efficiency}
Calculations: 33.2 MMBtu/hr * 0.20 lbs/MMBtu = 6.64 lbs/hr
6.64 lbs/hr * 8760 hrs/yr * 0.0005 tons/lb = 29.08 tons/year
NO_x Emissions:
Emission Factor: 0.38 lbs/ton burned {AP-42, Rev. 02/99, Table 1.6-2}
0.38 lbs/ton * 0.11 = 0.0418 lbs/MMBtu (Conversion in AP-42)

Calculations: 0.0418 lbs/MMBtu * 33.2 MMBtu/hr = 1.39 lbs/hr
1.39 lbs/hr * 8760 hrs/yr * 0.0005 tons/lb = 6.08 tons/yr

CO Emissions:
Emission Factor: 6.6 lbs/ton burned {AP-42, Rev. 02/99, Table 1.6-2}
6.6 lbs/ton * 0.11 = 0.726 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.726 lbs/MMBtu * 33.2 MMBtu/hr = 24.1 lbs/hr
24.1 lbs/hr * 8760 hrs/hr * 0.0005 tons/lb = 105.6 tons/yr

SO_x Emissions:
Emission Factor: 0.075 lbs/ton burned {AP-42, Rev. 02/99, Table 1.6-2}
0.075 lbs/ton * 0.11 = 0.0083 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.0083 lbs/MMBtu * 33.2 MMBtu/hr = 0.27 lbs/hr
0.27 lbs/hr * 8760 hrs/hr * 0.0005 tons/lb = 1.20 tons/yr

VOC Emissions:
Emission Factor: 0.18 lbs/ton burned {AP-42, Rev. 02/99, Table 1.6-3}
0.18 lbs/ton * 0.11 = 0.0198 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.0198 lbs/MMBtu * 33.2 MMBtu/hr = 0.66 lbs/hr
0.66 lbs/hr * 8760 hrs/hr * 0.0005 tons/lb = 2.88 tons/yr

Source 02: York/Shipley 6,000-lb/hr Boiler

Efficiency: 65%
Steam Output Capacity: 6000 lbs/hr
Steam Input Capacity: 6000 lbs steam/hr * 1200 Btu/lb steam * 1/0.65 = 11,076,923 Btu/hr = 11.1 MMBtu/hr

PM-10 Emissions:
Emission Factor: 5.5 lbs/ton (AP-42, Rev. 02/99, Table 1.6-1, Uncontrolled, Wood/Bark fired)
5.5 lbs/ton * 0.11 = 0.605 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.605 lbs/MMBtu * 11.1 MMBtu/hr = 6.72 lbs/hr
6.72 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 29.41 tons/yr

NO_x Emissions:
Emission Factor: 1.50 lbs/ton burned (AP-42, Rev. 02/99, Table 1.6-2, Stoker Boiler)
1.50 lbs/ton * 0.11 = 0.165 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.165 lbs/MMBtu * 11.1 MMBtu/hr = 1.8315 lbs/hr
1.8315 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 8.02 tons/yr

CO Emissions:
Emission Factor: 0.545 lbs/MMBtu (AP-42, Rev. 02/99, Table 1.6-2, Fuel Cell/Dutch Oven Boiler)
Calculations: 0.545 lbs/MMBtu * 11.1 MMBtu/hr = 6.0 lbs/hr (permit limit)
6.0 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 26.5 tons/yr

SO_x Emissions:
Emission Factor: 0.075 lbs/ton burned (AP-42, Rev. 02/99, Table 1.6-2, Stoker Boiler)
0.075 lbs/ton * 0.11 = 0.00825 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.00825 lbs/MMBtu * 11.1 MMBtu/hr = 0.0916 lbs/hr
0.0916 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 0.40 tons/yr

VOC Emissions:
Emission Factor: 0.22 lbs/ton burned (AP-42, Rev. 02/99, Table 1.6-2, Stoker Boiler)
0.22 lbs/ton * 0.11 = 0.0242 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.0242 lbs/MMBtu * 11.1 MMBtu/hr = 0.269 lbs/hr
0.269 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 1.18 tons/yr

Source 03: York/Shipley 12,000-lb/hr Boiler

Particulate Control Efficiency: 70%
Efficiency: 65%
Steam Output Capacity: 12,000 lbs/hr
Steam Input Capacity: 12,000 lbs steam/hr * 1200 Btu/lb steam * 1/0.65 = 22,153,846 Btu/hr = 22.2 MMBtu/hr

PM-10 Emissions:

Emission Factor: 6.5 lbs/ton (AP-42, Rev. 02/99, Table 1.6-1, Uncontrolled)
6.5 lbs/ton * 0.11 = 0.715 lbs/MMBtu (Conversion in AP-42)
Calculations: 22.2 MMBtu/hr * 0.715 lbs/MMBtu * (1 – 0.70) = 4.8 lbs/hr
4.8 lbs/hr * 8760 hrs/yr * 0.0005 tons/lb = 20.8 tons/yr

NO_x Emissions:
Emission Factor: 1.50 lbs/ton burned {FIRE SCC 10200902}
1.50 lbs/ton * 0.11 = 0.165 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.165 lbs/MMBtu * 22.2 MMBtu/hr = 3.66 lbs/hr
3.66 lbs/hr * 8760 hrs/yr * 0.0005 tons/lb = 16.0 tons/yr

CO Emissions:
Emission Factor: 0.545 lbs/MMBtu (AP-42, Rev. 02/99, Table 1.6-2, Fuel Cell/Dutch Oven Boiler)
Calculations: 0.545 lbs/MMBtu * 22.2 MMBtu/hr = 12.1 lbs/hr
12.1 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 53.0 tons/yr

SO_x Emissions:
Emission Factor: 0.075 lbs/ton burned (AP-42, Rev. 02/99, Table 1.6-2, Stoker Boiler)
0.075 lbs/ton * 0.11 = 0.00825 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.00825 lbs/MMBtu * 22.2 MMBtu/hr = 0.1832 lbs/hr
0.1832 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 0.80 tons/yr

VOC Emissions:
Emission Factor: 0.22 lbs/MMBtu (AP-42, Rev. 02/99, Table 1.6-2, Stoker Boiler)
0.22 lbs/ton * 0.11 = 0.0242 lbs/MMBtu (Conversion in AP-42)
Calculations: 0.0242 lbs/MMBtu * 22.2 MMBtu/hr = 0.537 lbs/hr
0.537 lbs/hr * 8760 hrs/yr * 1 ton/2000 lbs = 2.3 tons/yr

Source 04: 6 Dry Kilns (1 with 16 vents, 5 with one vent each)

Production Rate: 100 MMBdft/yr

PM-10 Emissions
Emission Factor: 0.16 lb/MBdft {Idaho DEQ}
Calculations: 100 MMBdft/yr * 0.16 lb C/MBdft * 1000 MBdft/MMBdft * 0.0005 tons/lb
= 8.00 tons/yr

VOC Emissions
Emission Factor: 1.67 lb/MBdft {Idaho DEQ}
Calculations: 100 MMBdft/yr*1.67 lb C/MBdft*1000 MBdft/MMBdft * 0.0005 tons/lb
= 83.5 tons/yr

Source 05 through 12: Material Handling Cyclone Emission Estimates

Hours of Operation: 8760 hr/yr Number of Cyclones: 8

Sample Calculation: PM-10 emissions
6700 scfm * 0.9 lb/scfm * 0.0005 tons/lb = 3.0 tons/yr
3.0 tons/yr * 2000 lb/ton * yr/8760 hr = 0.7 lb/hr

Emission Factor (EF) Reference: AIRS 3-07-008-04

Source ID	Flowrate (scfm)	Hours of Operation	PM-10 EF (lb/scfm)	PM-10 Emission Rate (lb/hr)	PM-10 Emission Rate (ton/yr)
Chip Bin	6700	8760	0.9	0.7	3.0
Chip Silo	2800	8760	0.9	0.3	1.3
Planer A-63 Surge Bin	19900	8760	0.9	2.0	9.0

Planer A-62 Surge Bin	17300	8760	0.9	1.8	7.8
Blow-Hog Sawdust	2500	8760	0.9	0.3	1.1
Moulder Surge Bin	4500	8760	0.9	0.5	2.0
Moulder Shavings Bin	7200	8760	0.9	0.7	3.2
Shavings Bin	16100	8760	0.9	1.7	7.2

Source 13: Material Handling Fugitives*

Sources include: Debarking, bark handling fugitives, chips handling fugitives, shavings loadout fugitives, hog fuel handling fugitives, sawdust handling fugitives, and cut off saws.

Reference: AP-42, Sec. 13.2.4.3, Eq. 1, Rev. 1/95

PM-10 Emission rate: 0.19 tons/yr, 0.04 lb/hr

Source 14: Sawdust Storage Pile Fugitives*

Reference: AP-42, Sec. 13.2.5, Eq. 1, Rev. 1/95

PM-10 Emission rate: 0.63 tons/yr, 0.14 lb/hr

Source 15: Hog Fuel Storage Pile Fugitives*

Reference: AP-42, Sec. 13.2.5, Eq. 1, Rev. 1/95

PM-10 Emission rate: 0.16 tons/yr, 0.04 lb/hr

Source 16: Unpaved Road Dust Emissions (from vehicular traffic inside the plant boundaries)*

Sources include: Log trucks, lumber trucks, by-product vans, Letourneau, Cat 980, Cat 966, Cat 320, Cat V200, Cat V225, Hyster 165, Hyster 165, Hyster 190, and Hyster 230.

Emissions are based on dry roads. Pyramid waters all surfaces on dry days; therefore a control efficiency of 50% is assumed.

Reference: AP-42, Sec. 13.2.2 , Rev. 9/98

PM-10 Emission rate: 11.89 tons/yr, 2.71 lb/hr

Complete emission inventory information available in permit application

Source 17: Plant-Wide Diesel Combustion (No. 2 Diesel Fuel): Uncontrolled

115000 #2 Diesel gallons/yr burned
140000 #2 Diesel Btu/gal (maximum)

PM-10 Emissions:

Emission Factor:	32.0 lbs/1000 gals burned	{AIRS, Rev 3/90, SCC 2-03-001-01}
Emissions:	1.84 tons/yr	
	0.42 lbs/hr	

NO_x Emissions:

Emission Factor:	4.41 lb/MMBtu	{FIRE Version 4 July 1995, SCC 2-03-001-01}
Emissions:	35.50 tons/yr	
	8.11 lbs/hr	

CO Emissions:

Emission Factor:	0.95 lb/MMBtu	{FIRE Version 4 July 1995, SCC 2-03-001-01}
Emissions:	7.65 tons/yr	
	1.75 lbs/hr	

SO_x Emissions:

Emission Factor:	0.29 lb/MMBtu	{FIRE Version 4 July 1995, SCC 2-03-001-01}
Emissions:	2.33 tons/yr	
	0.53 lbs/hr	

VOC Emissions:

Emission Factor:	32.1 lbs/1000 gals burned	{AIRS, Rev 3/90, SCC 2-03-001-01}
Emissions:	1.85 tons/yr	
	0.42 lbs/hr	

Source 18: Plant-Wide Gasoline Combustion: Uncontrolled

15000 gasoline gallons/yr burned
118450 gasoline Btu/gal (maximum)

PM-10 Emissions:

Emission Factor:	6.30 lbs/MMBtu	{FIRE Version 4 July 1995, SCC 2-03-001-01}
Emissions:	5.60 tons/yr	
	1.28 lbs/hr	

NO_x Emissions:

Emission Factor:	1.63 lb/MMBtu	{FIRE Version 4 July 1995, SCC 2-03-001-01}
Emissions:	1.45 tons/yr	
	0.33 lbs/hr	

CO Emissions:

Emission Factor:	62.70 lb/MMBtu	{FIRE Version 4 July 1995, SCC 2-03-001-01}
Emissions:	55.70 tons/yr	
	12.72 lbs/hr	

SO_x Emissions:

Emission Factor:	8.40E-02 lb/MMBtu	{FIRE Version 4 July 1995, SCC 2-03-001-01}
Emissions:	7.46E-02 tons/yr	
	1.70E-02 lbs/hr	

VOC Emissions:

Emission Factor:	147.70 lbs/1000 gals burned	{AIRS, Rev 3/90, SCC 2-03-001-01}
Emissions:	1.11 tons/yr	
	0.25 lbs/hr	

Source 19: Plant-Wide Propane Combustion (LPG): Uncontrolled

1 gallons/hr Propane burned
7000 gallons/yr Propane burned

PM-10 Emissions:

Emission Factor:	0.4 lbs/1000 gals burned	{AP-42 Table 1.5-1, 10/96}
Emissions:	1.40E-03 tons/yr	
	3.20E-04 lbs/hr	

NO_x Emissions:

Emission Factor:	14.0 lbs/1000 gals burned	{AP-42 Table 1.5-1, 10/96}
Emissions:	4.90E-02 tons/yr	
	1.12E-02 lbs/hr	

CO Emissions:

Emission Factor:	1.9 lbs/1000 gals burned	{AP-42 Table 1.5-1, 10/96}
Emissions:	6.65E-03 tons/yr	
	1.52E-03 lbs/hr	

SO_x Emissions:

Emission Factor:	0.581 lbs/1000 gals burned	{AP-42 Table 1.5-1, 10/96}
Emissions:	2.03E-03 tons/yr	
	4.64E-04 lbs/hr	

VOC Emissions:

Emission Factor:	0.5 lbs/1000 gals burned	{AP-42 Table 1.5-1, 10/96}
Emissions:	1.75E-03 tons/yr	
	4.00E-04 lbs/hr	

V. Air Quality Modeling Analysis

Based on the air quality modeling analysis performed and the currently permitted levels, the facility should not cause or contribute to a violation of the National Ambient Air Quality Standard (NAAQS) or Montana Ambient Air Quality Standard (MAAQS) for PM-10 or CO. The peak modeling results are as follows.

Pollutant	Averaging Period	Modeled Concentration ($\mu g/m^3$)	MAAQS ($\mu g/m^3$)
CO	8-HR	335.2	10,350
CO	1-HR	661.2	26,450
PM-10	Annual	27.0	50
PM-10	24-HR	94.6	150

Minimal impacts from the current permit action are expected in relation to past modeled levels of CO and PM-10.

VI. Existing Air Quality

The air quality classification for the area is Better than National Standards or Unclassified/Attainment for all pollutants (40 CFR 81.327). The Pyramid site is not located in any non-attainment area. The facility is classified as a PSD Class II airshed. Approximately 8 miles northeast of Pyramid lies the Bob Marshall Wilderness, a PSD Class I airshed.

VII. Taking or Damaging Implication Analysis

As Required by 2-10-101 through 105, MCA, the department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air and Waste Management Bureau
1520 East Sixth Avenue
P.O. Box 200901, Helena, Montana 59620-0901
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Pyramid Mountain Lumber Company
379 Boyscout Road
P.O. Box 549
Seeley Lake, Montana 59868

Permit Number: 2965-01

Preliminary Determination on Permit Issued: 08/23/00
Department Decision Issued: 09/25/00
Final Permit Issued: 10/11/00

1. **Legal Description of Site:** The Pyramid Mountain facility is located in the Southwest ¼ of Section 3, Township 16 North, Range 15 West, in Missoula County, Montana.

2. **Description of Project:** Pyramid submitted a permit application for the addition of a second York/Shipley Boiler to the facility located near Seeley Lake, Montana. The new 12,000-lb/hr boiler would assist the other boilers in providing steam to the facility. Pyramid also requested an increase in the capacity of the dry kilns. Furthermore, Pyramid requested that the department reduce the CO emission limits on the facility's currently permitted Wellons and York/Shipley Boilers. The boilers were originally permitted using emission factors for "stoker boilers" rather than "fuel-cell boilers." The potential emissions from this facility initially indicated that this facility was a major source for NSR. However, the original potential emissions were based on incorrect emission factors. This facility is not a major source for NSR and was not prior to this permit action.

3. **Objectives of Project:** The project would allow an increase in capacity of the dry kilns by providing more steam from the boilers, including the installation of an additional boiler. Reducing the CO limits would reclassify the facility as a non-major source for NSR (as it has been prior to this permit action).

4. **Alternatives Considered:** The only alternative would be the no action alternative, which would include not issuing the permit, making this environmental assessment unnecessary. The permit would not be issued without appropriate permit limitations allowing the source to maintain compliance with air standards.

5. **A listing of mitigation, stipulations and other controls:** A list of enforceable permit

conditions and a complete permit analysis, including a best available control technology analysis, are contained in Air Quality Permit #2965-01.

6. Regulatory effects on private property: The department has considered alternatives to the conditions imposed in this permit as part of the permit development. The department has determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no action alternative" was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution				X		Yes
C	Geology and Soil Quantity, Stability, and Moisture				X		Yes
D	Vegetation Cover, Quantity and Quality			X			Yes
E	Aesthetics				X		Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resources of Water, Air, and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the department.

A. Terrestrial and Aquatic Life and Habitats

This permitting action would result in an increase in particulate emissions (PM-10 and TSP), as well as slight increases in SO_2, NO_x, CO, and VOC. Impacts to terrestrial life and habitats may occur as a result of these increased emissions. Habitat impacts could result in a change of diversity or abundance of terrestrial or aquatic life. However, this area does not appear to contain any critical or unique wildlife habitat or aquatic life. The habitat in Seeley Lake and surrounding marshlands would not be impacted because there are no planned increases in water discharges from the facility operation.

B. Water Quality, Quantity, and Distribution

The actions addressed in this permit would not result in a change in the amount or characteristics of surface water discharged, or the alteration of the course or magnitude of any drainage system. Furthermore, this action would not result in a change in the quality or quantity of ground water. Therefore, no impacts to water quality, quantity, and/or distribution are anticipated.

C. Geology and Soil Quality, Stability, and Moisture

No additional disturbance outside the current facility area would be created from this action. This project would not change the soil stability or geologic substructure or result in any increased disruption, displacement, erosion, compaction, or moisture loss that would reduce productivity or fertility at or near the site. No unique geologic or physical features would be disturbed. Therefore, no impacts to geology and soil quality, stability, and moisture are anticipated.

D. Vegetation Cover, Quantity, and Quality

This project would be constructed on land already used for industrial activities. The vegetative cover, quantity, and quality would not be disturbed inside the facility boundaries. However, possible increases in actual levels of SO_2, NO_x, CO, VOC, PM-10, and TSP from historical emission levels may result in minor impacts to the diversity, productivity, or abundance of plant species in the surrounding areas.

E. Aesthetics

The project would be located on land inside the current facility boundaries. There would be no significant change in appearance or noise level.

F. Air Quality

Allowable pollutant levels would increase as a result of the proposal (see permit and permit analysis for expected pollutant levels from the project and corresponding permit limits). However, modeled levels of pollutants (at allowable levels) show compliance with the NAAQS and the MAAQS. The overall impact on air quality is expected to be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

This permitting action may result in minor impacts to terrestrial and aquatic life and/or their habitat; therefore, it is possible that unique, rare, threatened, or endangered species may experience minor impacts. However, the department is not aware of any unique, rare, threatened, or endangered species in the area surrounding the facility.

H. Demands on Environmental Resource of Water, Air, and Energy

This project would not consume any significant additional energy or water resources. As mentioned above, allowable levels of pollutant emissions would increase as a result of this project. Modeling efforts, using these new allowable levels, showed compliance with NAAQS and MAAQS.

I. Historical and Archaeological Sites

This project would not disturb a greater land surface than has already been occupied by the facility. To the best of the department's knowledge, there is no historical or archaeological site in this area. Therefore, no impacts to any historical and archaeological sites are anticipated.

J. Cumulative and Secondary Impacts

Increases in allowable pollutant emissions may result in minor cumulative and secondary impacts to terrestrial and aquatic habitats, water quality, and air quality.

8. **The following table summarizes the potential economic and social effects of the proposed project on the human environment.** The "no action alternative" was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue				X		Yes
D	Agricultural or Industrial Production				X		Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services				X		Yes
J	Industrial and Commercial Activity				X		Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:

The following comments have been prepared by the department.

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity
H. Distribution of Population

This project does not involve any significant physical or operational change that would affect the location, distribution, density, or growth rate of the human population. In addition, the project would not alter the cultural uniqueness or diversity of the community surrounding the facility. The fundamental moral views of a social group are not anticipated to be altered as a result of this permitting action.

C. Local and State Tax Base and Tax Revenue
I. Demands of Government Services

The changes to Pyramid's air quality permit would not result in a need for new or altered governmental services, nor adversely affect local or state tax bases or revenues.

D. Agricultural or Industrial Production
J. Industrial and Commercial Activity

This project would not result in a reduction of available acreage or productivity of any agricultural land; therefore, agricultural production should not be affected. Industrial production and commercial activity at the facility or in the neighboring area are not anticipated to be altered by issuing permit #2965-01.

E. Human Health

The two primary vehicles for impact upon human health are water and air. This permitting action would not result in a change in the amount or characteristics of surface water discharged, or the quality or quantity of ground water. Therefore, human health impacts from water are not anticipated. The project includes an increase in allowable air pollutant emissions. Modeling efforts from this permit application showed compliance with ambient standards. However, minor human health impacts from air quality are possible. Minimal health impacts for both water and air are anticipated.

F. Access to and Quality of Recreational and Wilderness Activities

The actions permitted would not alter any existing access to or quality of any recreational or wilderness area. This project would not have an impact on recreational or wilderness activities because the project would be constructed within an existing facility.

G. Quantity and Distribution of Employment

This project would not result in any impacts to the quantity and distribution of employment at the facility or surrounding community.

K. Locally Adopted Environmental Plans and Goals

There are no locally adopted environmental plans and goals that are expected to be affected by the current permit action.

L. Cumulative and Secondary Impacts

Increases in allowable pollutant emissions above historical levels may result in minor cumulative and secondary impacts to the human environment.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The source is applying the Best Available Control Technology and the analysis indicates compliance with all applicable air quality rules and regulations.

Other groups or agencies contacted or which may have overlapping jurisdiction: None.

Individuals or groups contributing to this EA: Department of Environmental Quality, Permitting and Compliance Division - Air and Waste Management Bureau.

EA prepared by: Debbie Skibicki
Date: 09/20/00