

Air Quality Permit

Issued to: Western Energy Company
P.O. Box 99
Colstrip, MT 59323

Permit #1483-08
Modification Request Received: 04/27/01
Department Decision on Modification: 10/05/01
Permit Final: 10/23/01
AFS #: 087-0004

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

SECTION I: Permitted Facilities

A. Plant Location

Western Energy operates a surface coal mine and extraction facility located in Areas A, B, D, and E of the Rosebud Mine west of Colstrip, Montana. The coal handling facilities are located in Areas A and E. Area A is located in all or part of Sections 28-34 of Township 2 North, Range 41 East; Section 36 of Township 2 North, Range 40 East; Section 1 of Township 1 North, Range 40 East; and Sections 3-8 of Township 1 North, Range 41 East of Rosebud County. Area B is located in all or part of Sections 2-5, 7-11, and 17-18 of Township 1 North, Range 41 East and Sections 8-17 of Township 1 North, Range 40 East of Rosebud County. Area D is located in all or part of Sections 19, 29, and 30 of Township 2 North, Range 42 East and Sections 13-15, 22-27, and 34-36 of Township 2 North, Range 41 East of Rosebud County. Area E is located in all or part of Sections 34-35 of Township 2 North, Range 41 East; Section 7 of Township 1 North, Range 42 East; and Sections 1-3 and 11-13 of Township 1 North, Range 41 East of Rosebud County. The list of permitted equipment can be found in Section I of the permit analysis.

B. Current Permit Action

The current permit action is a modification of Permit #1483-07. The Department of Environmental Quality (Department) received a letter, dated April 27, 2001, from Western Energy requesting termination of their ambient air monitoring network. Following the October 9, 1998, permitting guidance statement, the Department reviewed the ambient air monitoring data. In a letter dated May 23, 2001, the Department agreed to Western Energy's request to terminate the ambient monitoring program, effective July 1, 2001. This permit action updates the permit language to reflect the termination of the ambient air monitoring network. Also, this permit action updates the permit format. Permit #1483-08 replaces Permit #1483-07.

SECTION II: Conditions and Limitations

A. Emissions Limitations

1. Annual coal production from Area D shall be limited to 5,900,000 tons per year. Annual coal production from Areas A, B, and D shall be limited to 13,000,000 tons per year (ARM 17.8.710).
2. Western Energy shall not cause visible emissions of greater than 20% opacity to be discharged into the atmosphere from any coal handling, conveying, crushing, processing, storing or loading system averaged over 6 consecutive minutes (ARM 17.8.340).
3. Western Energy shall install and operate a coal dust suppression system or equivalent at the truck dump (ARM 17.8.710).
4. Western Energy shall apply chemical stabilizer to all permanent haul roads. In addition, water sprinkling shall supplement stabilization when necessary (ARM 17.8.710).
5. Western Energy shall contour or shape, as necessary, all uncrushed coal piles in all areas in order to minimize wind erosion (ARM 17.8.710).
6. Western Energy shall revegetate all exposed areas as soon as practical or as required by the Department's Industrial and Energy Minerals Bureau (ARM 17.8.710).
7. Western Energy shall enclose all coal conveyor belts at all transfer points (Areas E and A facilities) except as necessary to allow for maintenance (ARM 17.8.710).
8. Western Energy shall continue the train loadout as presently employed unless Department inspections indicate a problem (ARM 17.8.710).
9. Western Energy shall treat the county road with dehydrated oil or equivalent for a distance of approximately 4 miles west of Highway 39 (ARM 17.8.710).
10. Western Energy shall maintain and operate its mine according to the "Minewide Dust Control Management Plan" except as required otherwise by the above conditions (ARM 17.8.710).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Western Energy 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 specified in the emission inventory request. Information shall be in units as 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. Western Energy shall submit the annual coal production to the Department by March 1 of each year or with the annual emission inventory (ARM 17.8.505).

2. Western Energy shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.705(l)(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(l)(r)(iv) (ARM 17.8.705).

3. All records compiled in accordance with this permit must be maintained by Western Energy 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).

D. Ambient Monitoring

1. PM-10 data has been collected at the Western Energy mine since 1992. During the 1992-2000 period, the annual means at all sites were less than 28% of the annual standard. For the 24-hour concentrations, all of the annual, maximum 24-hour values were less than 53% of the 24-hour standard. Therefore, in accordance with the October 9, 1998, monitoring guidance statement developed by the Department, Western Energy may discontinue operation of their ambient air monitoring network.
2. The Department may require Western Energy to conduct additional ambient air monitoring, if necessary (ARM 17.8.710).

Section III: General Conditions

- A. Inspection – Western Energy 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 Western Energy fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Western Energy 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 Western Energy 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.

Permit Analysis
Western Energy Company - Rosebud Mine - Areas A, B, D and E
Permit #1483-08

I. Introduction/Process Description

A. Permitted Equipment

Western Energy Company (Western Energy) operates the following equipment at Areas A, B, D, and E of the Rosebud Mine.

1. "Coal handling facilities" include, but are not limited to:
 - a. Truck dump with hopper at Areas A and E. Note: Mining operations have ended at Area E and the area has been reclaimed. However, the truck dump (tipple) is still located and operated at Area E but it processes coal from Area D.
 - b. Three primary crushers with capacities of 1250 ton/hr each; two at Area A and one at Area E. Note: Mining operations have ended at Area E and the area has been reclaimed. However, the primary crusher is still located and operated at Area E but it processes coal from Area D.
 - c. Three secondary crushers; two at Area A and one at Area E. Note: Mining operations have ended at Area E and the area has been reclaimed. However, the secondary crusher is still located and operated at Area E but it processes coal from Area D. The secondary crusher at Area E handles approximately 30% of the primary crushed coal that is either used by Colstrip Units 1 and 2 or sold on the spot market. The capacity of the secondary crushers at Area A is approximately the same as at Area E; however, the coal from the Area A is shipped to out-of-state customers.
 - d. Partially enclosed conveyor system (Areas A and E). Note: Mining operations have ended at Area E and the area has been reclaimed. However, the conveyor system is still located and operated at Area E but it processes coal from Area D.
 - e. One open coal storage pile of crushed coal at Area A, encompassing approximately 3.5 acres and containing an estimated maximum 96,000 tons.
 - f. Train loadout facilities with retractable chute located at Areas A and E. The capacity at Area A is 4,000 ton/hr and at Area E it is 1,250 ton/hr. Note: Mining operations have ended at Area E and the area has been reclaimed. However, the train loadout facilities are still located and operated at Area E.
2. Necessary auxiliaries include, but are not limited to: draglines, coal shovels, trucks, front-end loaders, graders, scrapers, dozers, other mobile units, auxiliary and storage facilities, etc., as applicable.

B. Source Description

Western Energy has operated the Rosebud Mine at Colstrip since the late 1960's. Coal mining previously occurred in the area, primarily by the Northern Pacific Railroad. Air Quality Permit #1483 regulates mining operations in Areas A, B, D, and E of the Rosebud mine, while Permit #1570 pertains to Area C.

All areas use standard dragline overburden stripping practices, truck/shovel coal removal, soil salvage and replacement (primarily using scrapers,) overburden and coal drilling and blasting, and coal processing operations. Separate coal processing and handling facilities are located in Areas A and E and include primary and secondary crushing, conveying, and loadout facilities. Note: Mining operations have ended at Area E and the area has been reclaimed. However, the truck dump, primary and secondary crushers, conveyors and train loadout facilities are still located and operated at Area E but they process coal from Area D.

C. Permit History

Permit **#1483** was issued to Western Energy Company on November 22, 1980, for Areas A, B, and E of the Rosebud Mine at Colstrip, Montana.

Permit **#1483A** was issued on September 6, 1985, for the surface mining operations from the new Area D. The coal mining operations in Area D would eventually replace those in Area E. For Area D, Western Energy would maintain approximately the same production rate and serve the same customers as Area E. Area D was expected to have a mine life of 18 years with a total production of 68,500,000 tons. Area D was expected to have an annual production rate of 4,000,000 tons with a maximum of 5,900,000 tons.

Permit **#1483B** was issued on January 6, 1986, to consolidate Permits #1483 and #1483A. The permitting action also modified the ambient air monitoring requirements. Permit #1483B replaced Permits #1483 and #1483A.

Permit **#1483C** was issued on October 5, 1987, to include the advanced coal cleaning process (ACCP) facility. The ACCP facility was a 40 ton/hour demonstration coal drying plant that produced an enhanced fuel from sub-bituminous and lignite coals. Permit #1483C incorporated by reference the conditions and limitations contained in Permit #1483B.

Permit **#1483D** was issued on July 22, 1988, for changes to the ACCP facility. The major change allowed the use of a sulfur stripping system on the "make gas" (fuel gas) prior to combustion. The original process used a nahcolite dry injection (in-duct desulfurization) system. Also, the wet cooling towers replaced an ammonia cycle heat rejection system. Finally, the permit was updated to reflect the format and language used in permits at that time, that included moving the ambient air monitoring requirements from the body of the permit into an attachment to the main permit (thereafter referred to as Attachment 1). Permit #1483D replaced Permit #1483C.

Permit #1483E was issued on June 25, 1991, for changes to the ACCP operation. The main change allowed the use of a dry sorbent injection system for SO₂ control instead of the “make gas” (fuel gas) sulfur stripping system. The control efficiency of the dry sorbent injection system was less, so there was a minor increase in emissions. However, the coal input to the ACCP process was limited to 600,000 ton/year by a new permit condition. The emission inventory was re-calculated using updated emission factors. Clarifying language was added to Attachment 1 that required a changeover from TSP to PM-10 ambient monitoring by July 1, 1992. Permit #1483E replaced Permit #1483D.

Permit #1483-06 was issued on August 1, 1995, for an alteration to the ACCP facility. The changes included the addition of a fines handling system and a truck loadout system. The equipment list, process description, and emission inventory were all updated. Overall, there was an estimated particulate matter increase of 3.4 ton/year. Permit #1483-06 replaced Permit #1483E.

Permit #1483-07 was issued on November 2, 1996. Western Energy submitted a request on August 26, 1996, to discontinue the use of the dry sorbent injection system for SO₂ control at the ACCP facility. Based on the results of stack tests, Western Energy demonstrated uncontrolled SO₂ emissions were less than 2 ton/year. Western Energy also requested that the ACCP facility be separated from the coal mining operation and regulated under its own permit. Therefore, Western Energy was issued Permit # 2975-00 for the ACCP facility and the mining operation remained under Permit #1483. Permit #1483-07 replaced Permit #1483-06.

D. Current Permit Action

The current permit action is a modification of Permit #1483-07. The Department of Environmental Quality (Department) received a letter, dated April 27, 2001, from Western Energy requesting termination of the ambient air monitoring network. Following the October 9, 1998, permitting guidance statement, the Department reviewed the ambient air monitoring data. In a letter dated May 23, 2001, the Department agreed to Western Energy’s request to terminate their ambient monitoring program, effective July 1, 2001. This permit action updates the permit language to reflect the termination of the ambient air monitoring network. Also, this permit action updates the permit format. Permit #1483-08 replaces Permit #1483-07.

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 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).

Western Energy shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited, 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 in 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 that a public nuisance is created.

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

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, and
10. ARM 17.8.223 Ambient Air Quality Standard for PM-10.

Western Energy 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 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Western Energy 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 particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter Industrial Processes. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount shown in this rule.
5. ARM 17.8.322, Sulfur Oxide Emissions-Sulfur in Fuel. This rule 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 rule.
6. 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 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. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). Western Energy is an NSPS affected facility under 40 CFR 60 and is subject to the requirements of the following subparts.

40 CFR Part 60, Subpart A General Provisions.

40 CFR Part 60, Subpart Y Coal Preparation Plants. This subpart requires affected facilities with any emissions containing particulate matter to not exhibit greater than 20% opacity. Process operations at this facility that meet the definition of affected facilities include any coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems.

8. ARM 17.8.341 Emissions Standards for Hazardous Air Pollutants. This source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.

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. The current permit modification is an administrative action; therefore, a permit application and fee were not required.
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 17.8.701 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 any air contaminant sources that have the potential to emit greater than 25 tons per year of any pollutant. Western Energy has the potential to emit greater than 25 tons per year of PM, PM-10, NO_x, SO₂, and VOC; therefore, a permit is required.
 4. ARM 17.8.706 New or Altered Sources and Stacks--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. The current permit modification is an administrative action; therefore, a permit application is not required.
 5. ARM 17.8.707 Waivers. ARM 17.8.706 requires that a permit application be submitted 180 days before construction begins. This rule allows the Department to waive this time limit. The Department hereby waives this time limit.
 6. ARM 17.8.710 Conditions for Issuance of Permit. This rule requires that Western Energy 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 ensure compliance with all applicable rules and standards. Western Energy demonstrated compliance with all applicable rules and standards as required for permit issuance.
 7. ARM 17.8.715 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 current permit modification is an administrative action that will not increase emissions at this facility and which will not add or alter any sources; therefore, a BACT analysis is not required.
 8. 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.
 9. ARM 17.8.717 Compliance with Other Statutes and Rules. This rule states that nothing in the permit shall be construed as relieving Western Energy 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.*
 10. ARM 17.8.720 Public Review of Permit Applications. 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. The current permit modification is an administrative action; therefore, a public notice is not required.
 11. 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, that in no event may be less than 1 year after the permit is issued.

12. 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 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. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
13. ARM 17.8.734 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 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.

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

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. Potential to emit (PTE) > 100 ton/year of any pollutant;
 - b. PTE > 10 ton/year of any one Hazardous Air Pollutant (HAP), PTE > 25 ton/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. Sources with the PTE > 70 ton/year of PM-10 in a serious PM-10 non-attainment 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 Air Quality Permit #1483-08 for Western Energy, the following conclusions were made:
 - a. The facility's PTE is less than 100 ton/year for any pollutant, excluding fugitives.
 - b. The facility's PTE is less than 10 ton/year for any one HAP and less than 25 ton/year of all HAPs.
 - c. This source is not located in a serious PM-10 non-attainment area.
 - d. This facility is subject to a NSPS.
 - e. This facility is not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Therefore, a Title V operating permit is not required. However, if minor sources subject to a NSPS are required to obtain a Title V Operating Permit, Western Energy will be required to obtain an operating permit.

III. BACT Determination

A BACT determination is required for each new or altered source. Western Energy shall install on the new or altered source the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology shall be utilized. There was no increase in emissions for the current permit modification and no sources were added or altered. Therefore, a BACT determination was not required.

IV. Emission Inventory

Table 1. Particulate Matter (PM) Emissions¹

Emission Source	Emission Factor	Units	Control Measure	%Control	Controlled PM (ton/year)
Top Soil Removal	0.38	lb/yd ³	None	0	119.1
Overburden Drilling	1.5	lb/hole	None	0	7.4
Overburden Blasting	37.5	lb/blast	None	0	2.1
Overburden Removal	0.03	lb/yd ³	Minimize Fall Distance	0	883.6
Haul Roads	8	lb/vmt	Chemical Stabilization	85	180.3
Access Roads	3	lb/vmt	Chemical Stabilization	85	182.8
Wind Erosion	0.38	ton/acre-yr	Prompt Revegetation	0	266.0
Coal Drilling	0.22	lb/hole	None	0	3.2
Coal Blasting	26.25	lb/blast	None	0	4.3
Coal Removal	0.0021	lb/ton	Minimize Fall Distance	0	13.7
Coal Dumping	0.01275	lb/ton	Partial Enclosure	90	8.3
Coal Crushing	0.08	lb/ton	Enclosure	95	26.0
Conveyors	0.2	lb/ton	Partial Enclosure	90	130.0
Vehicle Exhaust – Diesel	30.1	lb/1000 gal	None	0	36.2
Vehicle Exhaust – Gas	6.06	lb/1000 gal	None	0	0.4
Total PM – Fugitive & Process					1,863.4

¹ Based on the annual coal production limit for the combined areas of 13,000,000 ton/year.

Table 2. Gaseous Emissions

Pollutant	Ton/Year - controlled
Oxides of Nitrogen	445
Sulfur Dioxide	48
Carbon Monoxide	793
Volatile Organic Compounds	37

The values shown are the total emissions from vehicle exhaust (diesel and gasoline) and explosives detonation. Emission factors and process rates are available from the Department.

V. Existing Air Quality

Prior to this permitting action, the Department reviewed Western Energy's request, dated April 27, 2001, to terminate the ambient PM-10 monitoring program. The review followed the Department's October 1998 Monitoring Requirements Guidance Statement. The review analyzed the PM-10 data collected at 7 sites at Western Energy's operations since the changeover from TSP samplers in 1992 through 2000. During the 1992-2000 period, the annual means at all sites were less than 28% of the annual standard (50 µg/m³). For the 24-hour concentrations, all of the annual, maximum 24-hour values were less than 53% of the 24-hour standard (150 µg/m³). The data from Western Energy's air monitoring network indicates relatively low concentrations of PM-10 in the ambient air around their coal mining operation.

VI. Air Quality Impact Analysis

As discussed in Section V, the data from Western Energy's air monitoring network indicates relatively low concentrations of PM-10 in the ambient air around their coal mining operation. There was no increase in emissions for the current permit modification; therefore, modeling is not required for the current permitting action.

VII. Taking or Damaging Implication Analysis

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

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, is not required for the current permit modification because it is an administrative action.

Permit Analysis Prepared by: Robert K. Jeffrey

Date: October 2, 2001