

AIR QUALITY PERMIT

Issued To: The Western Sugar Cooperative
7555 E. Hampden Ave., Suite 600
Denver, CO 80231

Permit: #2912-04
Application Complete: 04/29/04
Preliminary Decision Issued: 05/19/04
Department Decision Issued: 06/04/04
Permit Final: 06/22/04
AFS: #111-0007

An air quality permit, with conditions, is hereby granted to The Western Sugar Cooperative (WSC), 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

WSC operates a sugar beet processing facility in Billings, Montana. The legal description of the facility is the Northeast ¼ of Section 10, Township 1 South, Range 26 East, in Yellowstone County, Montana.

B. Current Permit Action

On April 14, 2004, the Department of Environmental Quality (Department) received a complete application from WSC requesting the addition of a federally enforceable permit condition to Permit #2912-03 requiring the operation of existing coal boiler pollution control equipment. The current permit action is not for a physical change to the WSC facility, but will require WSC to operate the scrubbers whenever the coal boilers are in operation. This federally enforceable condition will allow WSC to take credit for the emissions reductions associated with the scrubbers and there by avoid the Maximum Achievable Control Technology (MACT) standards for Industrial, Commercial and Institutional Boilers, and Process Heaters (40 CFR, Part 63, Subpart DDDDD).

SECTION II. Conditions and Limitations

A. Emission Limitations

1. WSC 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. WSC 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).
3. WSC 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).

4. WSC 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.3 (ARM 17.8.749).
5. Combined emissions of sulfur dioxide (SO₂) from the east dryer stack and west dryer stack shall not exceed 88.5 pounds per 3-hour period (Stipulation agreement between the Department and WSC).
6. Combined emissions of SO₂ from the east dryer stack and west dryer stack shall not exceed 708.0 pounds per calendar day (Stipulation agreement between the Department and WSC).
7. Combined emissions of SO₂ from the east dryer stack and west dryer stack shall not exceed 148,680 pounds per calendar year (Stipulation agreement between the Department and WSC).
8. Emissions of SO₂ from the boiler house stack shall not exceed 856.2 pounds per 3-hour period (Stipulation agreement between the Department and WSC).
9. Emissions of SO₂ from the boiler house stack shall not exceed 6,849.6 pounds per calendar day (Stipulation agreement between the Department and WSC).
10. Emissions of SO₂ from the boiler house stack shall not exceed 1,438,416 pounds per calendar year (Stipulation agreement between the Department and WSC).
11. The total combined throughput for the east dryer and west dryer shall not exceed 188,000 tons of pressed pulp during any rolling 12-month time period (ARM 17.8.749).
12. The total throughput for the pelletizer cooler shall not exceed 75,000 tons of pellets during any rolling 12-month time period (ARM 17.8.749).
13. WSC shall install, operate, and maintain a wet scrubber on each coal boiler (ARM 17.8.749).

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. WSC 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. WSC shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745(1), 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. WSC shall document, by month, the total combined throughput for the east dryer and west dryer. By the 25th day of each month, WSC shall sum the total combined throughput for the east dryer and the west dryer during the previous 12 months to verify compliance with the limitation in Section II.A.11. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
4. WSC shall document, by month, the total throughput for the pelletizer cooler. By the 25th day of each month, WSC shall sum the total throughput for the pelletizer cooler during the previous 12 months to verify compliance with the limitation in Section II.A.12. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – WSC 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 WSC fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving WSC 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 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 conclusion of the hearing and issuance of a final decision by the Board.

- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy 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 WSC may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

Permit Analysis
The Western Sugar Cooperative
Permit #2912-04

I. Introduction/Process Description

A. Permitted Equipment

The Western Sugar Cooperative (WSC) processes sugar beets into refined sugar, molasses, pulp, and pellets. WSC's sugar beet processing facility is located at 3020 State Avenue, Billings, Montana. A summary of the facility equipment and pollution control devices is contained in Table 1.

Table 1	
Description	Pollution Control Device/Practice
132 MMBtu/hr Erie City Boiler #1	Natural Gas Fuel Only
Boiler House Stack, (148 MMBtu/hr Riley Boilers; #2, #3, and #4)	Wet Scrubber, Mist Eliminator, Multicyclones
17 MMBtu/hr Clever Brooks Boiler #5	Natural Gas Fuel Only
26.6 MMBtu/hr Pulp Dryers	Wet Scrubber, Mist Eliminator, Multicyclones
Pellet Mills/ Conveyor	Multiple Cyclones
Pelletizer-Cooler	Multiple Cyclones
(2) Air Dryers	Wet Scrubber
(1) Steam Sugar Granulator	Baghouse
(1) Steam Sugar Granulator	Baghouse
Lime Slaker Vent	Wet Scrubber
Burnt Lime Collector	Baghouse
Truck Hauling-Fugitives	Water Spray
Warehouse Sugar Dust Collector	Dust Collector is Control Device

B. Source Description

WSC processes sugar beets into refined sugar, molasses, pulp, and pellets. Sugar beets are received at the plant by truck and are screened and washed to remove materials such as dirt, mud, rocks, and leaves. The beets are then either fed into the plant for processing or stockpiled for future use. Processing of the beets begins by slicing them into long thin strips, referred to as cossettes. The cossettes are conveyed into a diffuser where the beet sugar is removed using heated water. When the sugar solution leaves the lower end of the diffuser it is known as "raw juice." However, when the cossettes reach the upper end of the diffuser, it is free of most sugar and the cossettes become beet pulp, which is used for livestock feed. Upon leaving the diffuser, the "raw juice" goes through several purification and filtration stages to remove impurities and other non-sugars and then the raw juice is sent to evaporators to remove excess water. This concentrated juice is crystallized and separated into pure sugar and molasses. The two by-products of this process, molasses and pulp, are mixed together to create pellets and are sold as livestock feed. Shipment of the products is performed using both rail and truck.

C. Permit History

On May 11, 1971, Permit #**286-073071** was issued to The Western Sugar Company to install a 2000-gallon per minute (gal/min) wet scrubbing system on the existing cyclone dryer stacks.

On July 10, 1972, Permit #**485-092672** was issued to The Western Sugar Company to install a wet scrubber system on the west drum pulp dryer cyclone.

On June 29, 1976, Permit #913 was issued to Western Sugar Company for the conversion of 3 Riley 100,000 pound per hour (lb/hr) natural gas fired steam generators (Riley #2, Riley #3, and Riley #4) to coal stoker fired steam generators.

On July 26, 1978, Permit #1227 was issued to Western Sugar Company to install Multi-cyclones on the 3 coal fired boilers (Riley #2, Riley #3, and Riley #4).

On June 9, 1996, Western Sugar Company was issued Permit #2912-00 to construct the boiler house stack extension that would extend the stack to at least 51.8 meters above ground level (Permit #2912-00 replaced Permit #286, #485, #913, and #1227). However, during a routine site visit, the Montana Department of Environmental Quality (Department) noted an economizer on the boiler house stack that was put there by Western Sugar Company in an effort to minimize the amount of heat that was vented through the stack. The economizer influenced the characteristics of the plume emitted from the stack and was installed without notifying the Department. As a result, the stipulation agreement between the Department and Western Sugar Company was readjusted to account for the changed characteristics of the exit gas plume. The changed conditions of the stipulation were as follows: the boiler house stack must be raised to a minimum height of 54.9 meters instead of the original 51.8 meters. Originally, the boiler house stack was 120 feet tall and the extension would add another 60 feet that would produce a total stack height of 180 feet (54.9 meters) above ground level. As part of the 1995 proposed Billings/Laurel SO₂ State Implementation Plan, Western Sugar Company and the Department stipulated that Western Sugar Company shall extend the height of the boiler house stack to at least 54.9 meters to receive Good Engineering Practices (GEP). In addition to the boiler house stack extension, Western Sugar Company agreed to accept lower emission limitations for sulfur dioxide (SO₂) as follows:

1. Combined 3-hour emissions of SO₂ from the east dryer stack and west dryer stack shall not exceed 88.5 pounds per 3-hour period;
2. Combined daily emissions of SO₂ from the east dryer stack and west dryer stack shall not exceed 708.0 pounds per calendar day; and
3. Combined annual emissions of SO₂ from the east dryer stack and west dryer stack shall not exceed 148,680 pounds per calendar year.

On June 12, 1998, an agreement between the Department and Western Sugar Company was completed. The June 12, 1998, Stipulation (STIP) identifies specific emission limitations, monitoring, and reporting requirements that were established through the agreement. Permit #2912-00 replaced Permit #286, #485, #913, and #1227.

On May 17, 2002, the Department received a request from Western Sugar Company to modify Permit #2912-00. The Western Sugar Company proposal requested that Permit #2912-00 be updated to reflect the name change from Western Sugar Company to WSC. In addition, the permit analysis was updated to reflect the de minimis change of replacing a wet scrubber on one of the two cooling sugar granulators with a more efficient baghouse. Further, the permit was updated to reflect the most up-to-date permit language. On August 2, 2002, Permit #2912-01 replaced Permit #2912-00.

On June 23, 2003, the Department received a de minimis notification from WSC. The change involved replacing the wet scrubber on the second cooling sugar granulator with a more efficient baghouse. The permit action updated the permit analysis to reflect the change and updated the facility's mailing address. In addition, the permit format, language, and rule references were updated to reflect the Department's current permit format, language, and rule references. Permit #2912-02 replaced Permit #2912-01.

On July 30, 2003, the Department received a complete application from Bison Engineering, Inc. on behalf of WSC for the modification of the diffuser at WSC's facility. The existing slope diffuser was replaced with a more efficient tower diffuser. Although the diffuser is not an emitting unit, the diffuser had the potential to affect the downstream emitting units (pressed pulp dryers and pelletizer cooler). Therefore, WSC requested federally enforceable throughput limits on the pressed pulp dryers and the pelletizer cooler that limited potential emissions levels below PSD significance levels. Permit #2912-03 replaced Permit #2912-02.

D. Current Permit Action

On April 14, 2004, the Department received a complete application from WSC for the addition of a federally enforceable permit condition to Permit #2912-03 requiring the operation of existing coal boiler pollution control equipment. Although the current permit action does not make a physical change to the WSC facility, it requires WSC to operate the scrubbers whenever the coal boilers are in operation. Permit #2912-04 replaces Permit #2912-03.

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).

WSC 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 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 17.8.210 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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

WSC 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. (1) This rule requires that no person may 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. (2) 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, WSC 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 Process. 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.
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 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The WSC facility is not an NSPS affected source because the steam generation boilers were installed prior to the applicability dates of 40 CFR 60, Subparts D, Da, Db, and Dc. In addition, the heat input rates for the steam generation units are less than the applicable requirements in 40 CFR 60, Subparts D and Da.

7. 17.8.342 Emissions Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR 63, Emissions Standards for Hazardous Air Pollutants for Source Categories. By requesting a federally enforceable permit condition requiring the operation of the coal boiler emission control equipment, WSC can take credit for the emissions reductions associated with the coal boiler scrubbers. Therefore, the MACT standards for Industrial, Commercial and Institutional Boilers, and Process Heaters (40 CFR, Part 63, Subpart DDDDD) are not applicable to WSC's coal boilers.

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 adds a federally enforceable permit condition to Permit #2912-04 for the operation of the coal boiler pollution control equipment. WSC submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505 When Permit Required--Exclusions. 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 alteration to construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. WSC has a PTE more than 25 tons per year of PM, PM₁₀, NO_x, CO, VOC, and SO_x; 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, alteration or use of a source. The current permit action adds a federally enforceable permit condition to Permit #2912-04 for the operation of the boiler pollution control equipment. WSC submitted the required permit application for the current permit action. (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. WSC submitted an affidavit of publication of public notice for the April 21, 2004, issue of the Billings Gazette, a newspaper of general circulation in the City of Billings, MT in Yellowstone County, as proof of compliance with the public notice requirements.
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 WSC 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 17.8.762 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 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.
12. 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).
13. 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.

14. 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.

WSC's facility in Billings, Montana is defined as a major stationary source because it is a listed source with a PTE greater than 100 tons per year of one or more criteria pollutants. However, the current permit action will not result in emissions that are greater than the significance levels; therefore, a PSD review is not necessary.

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 > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ 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 Air Quality Permit #2912-04 for WSC, the following conclusions were made:
 - a. The facility's PTE is greater than 100 tons/year for PM, PM₁₀, NO_x, CO, and SO_x.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.

- c. This source is not located in a serious PM₁₀ nonattainment area.
- d. This facility is not subject to any current 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.

Based on these facts, the Department determined that WSC is subject to the Title V Operating Permit program. WSC's Title V Operating Permit #OP2912-02 became final and effective on November 4, 2003. Permit #OP2912-02 expiration date is November 18, 2004; therefore, the Department will incorporate the changes from the current permit action into the renewal process.

III. BACT Determination

A BACT determination is required for each new or altered source. WSC shall install on the new or altered source the maximum air pollution control capability, which is technically feasible and economically practicable, except that BACT shall be utilized. The current permit action does not add an emitting unit nor affect the facility's emissions; therefore, a BACT determination is not required for this permitting action.

IV. Emission Inventory

Source	Pollutants (ton/yr)					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Erie City Boiler #1	1.64	1.64	299.99	0.76	21.82	0.33
Boiler Stack	324.77	324.77	879.33	3.21	320.92	709.88
C. B. Boiler #5	0.96	0.96	9.83	0.20	2.46	0.04
Combined East & West Pulp Dryer Stacks	64.39	5.98	6.82	19.36	1.36	0.04
Pellet Mill/Conveyor	10.58	10.58	---	---	---	---
Pelletizer-Cooler	5.18	1.09	---	---	---	---
Steam Heated Sugar Granulators	0.70	0.70	---	---	---	---
(2) Air Drying Sugar Granulators	4.74	4.74	---	---	---	---
Coke or Coal fired Lime Kiln	0.06	0.06	0.01	---	0.02	0.03
Burnt Lime Collector	5.04	5.04	---	---	---	---
Lime Slaker Vent	1.44	1.44	---	---	---	---
Coke Handling	1.31	0.66	---	---	---	---
Coke Coal Handling – Fugitives	1.31	0.66	---	---	---	---
Limestone Handling – Fugitives	1.31	0.66	---	---	---	---
Wind Erosion – Fugitives	5.00	2.50	---	---	---	---
Truck Handling – Fugitives	10.02	4.51	---	---	---	---
Total Emissions	438.45	36.99	1195.98	23.53	346.58	710.32

Source: Title V Air Quality Permit Application

V. Existing Air Quality and Impacts

WSC is located in the Northeast ¼ of Section 10, Township 1 South, Range 26 East, in Yellowstone County, Montana. The Department previously conducted air dispersion modeling and the results from the model showed no adverse impact on the air quality in the region. The emissions generated by this facility and conditions established in Permit #2912-04 will limit the amount of controlled emissions from this operation and will not cause concentrations of pollutants to exceed the ambient air quality standards.

VI. 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.

VII. 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 Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: The Western Sugar Cooperative

Air Quality Permit number: 2912-04

Preliminary Determination Issued: 05/19/04

Department Decision Issued: 06/04/04

Permit Final: 06/22/04

1. Legal Description of Site: WSC operates a sugar beet processing facility in Billings, Montana. The legal description of the facility is the Northeast ¼ of Section 10, Township 1 South, Range 26 East, in Yellowstone County, Montana.
2. Description of Project: The current permit action would place a federally enforceable permit condition in Permit #2912-04 requiring WSC to operate the existing emission control equipment on the coal boilers.
3. Objectives of Project: Since WSC converted their boilers back to coal in 1976, WSC has operated the coal boiler scrubbers to meet permit limits for SO₂, particulate, and opacity. However, the addition of a federally enforceable permit condition to Permit #2912-04 requiring the operation of the scrubbers would allow WSC to take credit for the emission reductions provided by the scrubbers. Therefore, WSC would avoid the Maximum Achievable Control Technology (MACT) standards for Industrial, Commercial and Institutional Boilers, and Process Heaters (40 CFR, Part 63, Subpart DDDDD).
4. Alternatives Considered: In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because WSC demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. A Listing of Mitigation, Stipulations, and Other Controls: A list of enforceable conditions would be included in Permit #2912-04.
6. Regulatory Effects on Private Property: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department 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 Quality, 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 Resource 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
- B. Water Quality, Quantity and Distribution
- C. Geology and Soil Quality, Stability and Moisture
- D. Vegetation Cover, Quantity, and Quality
- E. Aesthetics
- F. Air Quality
- G. Unique Endangered, Fragile, or Limited Environmental Resources
- H. Demands on Environmental Resource of Water, Air and Energy
- I. Historical and Archaeological Sites
- J. Cumulative and Secondary Impacts

The current permit action would have no physical or biological effects on the human environment because the proposed action does not add an emission unit nor impact the actual emissions of the facility. Further, WSC needs to operate the coal boiler scrubbers to meet the existing permit limits for SO₂, particulate, and opacity.

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
- C. Local and State Tax Base and Tax Revenue
- D. Agricultural or Industrial Production
- E. Human Health
- F. Access to and Quality of Recreational and Wilderness Activities
- G. Quantity and Distribution of Employment
- H. Distribution of Population
- I. Demands for Government Services
- J. Industrial and Commercial Activity
- K. Locally Adopted Environmental Plans and Goals
- L. Cumulative and Secondary Impacts

The current permit action would have no economic or social effects on the human environment because the proposed action does not make any physical or operational changes to the facility nor does the action affect the actual emissions of the facility.

Recommendation: No EIS is required.

The current permitting action is for the addition of a federally enforceable permit condition requiring the operation of existing emission control equipment on WSC’s coal boilers. The proposed action does not make any physical or operational changes to the WSC facility, the action does not effect the actual emissions of the facility, and there is no significant impacts associated with this action. Furthermore, Permit #2912-04 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Carson Coate

Date: April 29, 2004