

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT**

**Permitting and Compliance Division  
1520 E. Sixth Avenue  
P.O. Box 200901  
Helena, Montana 59620-0901**

Sidney Sugars Incorporated  
NW ¼, NW ¼, Section 34, Township 23 North, Range 59 East, Richland County  
35140 County Road 125  
Sidney, MT 59270

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

<b>Facility Compliance Requirements</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
Source Tests Required	X		Method 5, 6, and 9
Ambient Monitoring Required		X	
Continuous Opacity Monitoring Systems (COMS) Required		X	
Continuous Emission Monitoring Systems (CEMS) Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		Annual and Semiannual
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
<b>Applicable Air Quality Programs</b>			
ARM Subchapter 7 Preconstruction Permitting	X		Permit #1826-11
New Source Performance Standards (NSPS)	X		40 CFR 60, Subpart Y 40 CFR 60, Subpart Dc
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	Except 40 CFR 61, Subpart M
Maximum Achievable Control Technology (MACT)	X		40 CFR 63, Subpart JJJJJ
Major New Source Review (NSR)/Prevention of Significant Deterioration (PSD)	X		Major Source, but permitting requirements have not been triggered
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
Compliance Assurance Monitoring (CAM)	X		Appendix E of OP1826-09
State Implementation Plan (SIP)	X		General SIP

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## SECTION I. GENERAL INFORMATION

### A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the permit by the Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the renewal application submitted by Sidney Sugars Incorporated (Sidney Sugars) on November 15, 2010. The renewal application incorporated information from the original operating permit application submitted to the Department of Environmental Quality (Department) by the Holly Sugar Corporation (Holly Sugar) on March 21, 1995. Additional submittals were provided on September 11, 1995, July 28, 1998, and August 18, 1999, for issuance of Permit #OP1826-00 on May 26, 2000; November 2, 2000, for issuance of Permit #OP1826-01; May 2, 2000, October 2, 2001, November 20, 2001, January 11, 2002, and February 1, 2002, for issuance of Permit #OP1826-02; October 18, 2002, for Permit #OP1826-03; September 29, 2003, October 29, 2003, for Permit #OP1826-04, January 26, 2005, for issuance Permit #OP1826-05; May 27, 2007, for issuance of Permit #OP1826-08; July 27, 2011, for issuance of Permit #OP1826-07; and April 28, 2012.

### B. Facility Location

The Sidney Sugars is located in the NW<sup>1</sup>/<sub>4</sub>, of the NW<sup>1</sup>/<sub>4</sub>, Section 34, Township 23 North, Range 59 East, P.M.M., in Richland County, Montana. Richland County is designated as an Unclassifiable/Attainment area for National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The facility is located immediately east of the town of Sidney, all other boundaries are essentially undeveloped/agricultural use properties except for occasional single family residential locations.

### C. Facility Background Information

#### **Montana Air Quality Permit (MAQP) Background**

On May 2, 1984, Holly Sugar received **MAQP #1826-00** for the conversion of the two existing CE boilers from gas and oil fired to coal fired. The company was required to receive a permit due to changes in emissions for the different fuel sources.

On March 29, 1993, Holly Sugar received **MAQP #1826-01** for removal of a permit condition limiting the ash content of the lignite coal burned in their two CE boilers. This modification had no effect on emissions since the existing particulate and SO<sub>2</sub> emission limitations and production limitations would not be changed. Increased testing, monitoring, and reporting requirements were imposed to demonstrate compliance.

On January 6, 1995, Holly Sugar received **MAQP #1826-02** to correct errors that existed in MAQP #1826-01. The language limiting the hours of operation of the entire plant was changed to correctly state that the limitation applies to the CE boiler and associated coal handling equipment. Another change was to reference the appropriate rules which determine the maximum emissions from the other boilers and dryers at differing performance loads. Also, references to the applicable rules, which were used to determine the conditions or limitations, were added to the permit. The corrections did not cause a change in the allowable or actual emissions at the facility. A summary of some of the changes follows.

1. The section listing limitation for the CE boilers was changed to identify that the CE boilers were limited to 180 days of operation. The previous permit had incorrectly stated the entire facility was subject to the limitation. The limitation was included as part of MAQP #1826-00 and should have been specific to the CE boilers and coal handling equipment since this equipment was the only equipment reviewed as part of the original permit application.
2. The limitation for the dryers was incorrectly stated in MAQP #1826-01. The condition was rewritten to identify the equations, which must be used by the facility to determine allowable emissions from the dryers.

On June 10, 1995, Holly Sugar was issued **MAQP #1826-03** to authorize the construction of sugar silos #7 through #16, which was to allow for additional sugar storage on site. The equipment also included sugar handling equipment and a conditioner silo #6. Each sugar silo would have a filter vent to control emissions from loading and unloading. The conditioner silo #6 would vent to silo #7 and emissions will be controlled by the silo #7 filter vent.

On April 14, 1996, Holly Sugar was issued **MAQP #1826-04** to extend the operating schedule of the coal handling equipment at the facility. Previously, the permit had limited the operation of the CE boilers and the coal handling equipment to 180 days per year. Holly Sugar determined that they could meet their needs with only one CE boiler operating and need the flexibility to extend their campaign beyond the 180-day limit. Therefore, Holly Sugar requested that the operating limit on the coal handling equipment be increased to 360 days per year. To ensure there was no increase in the allowable particulate emissions from the coal handling equipment, Holly Sugar requested that the emission limit from the coal handling baghouse be reduced from 0.02 gr/dscf to 0.01 gr/dscf. Actual emissions from the coal handling facility were not expected to change because the total amount of coal handled at the facility did not change.

Holly Sugar also requested, and the Department agreed, that the following testing requirements be removed: 1) The requirement to test the Union boilers and the pulp dryers for SO<sub>2</sub>; the permit contained no limits for SO<sub>2</sub> emissions from these sources and it was not reasonable to require Holly Sugar to test for information only purposes. 2) The requirement to perform compliance tests for opacity on the sugar silos. The silo vents are located inside small enclosures on top of the silos. The exhaust exits the enclosure through various natural draft openings such as the door seals and it would be difficult to perform a compliance test on each opening. The opacity limit on the silo emissions is not affected by this action.

On February 28, 1998, Holly Sugar was issued **MAQP #1826-05** to remove the particulate and opacity testing requirements for the two Union boilers. Previously, Holly Sugar was required to test the Union boilers for particulate and opacity because the boilers could be fired with natural gas or fuel oil. However, Holly Sugar requested that these testing requirements be removed as the boilers are fired almost exclusively on natural gas. Fuel oil is used only during emergency gas curtailments, for less than 30 days per year. With natural gas as the primary fuel, Holly Sugar is expected to be in compliance with the opacity and particulate emission limits. If it is determined that the Union boilers are using more fuel oil than anticipated or identified, the Department may require testing. This change did not increase the facility's allowable or potential emissions.

On July 28, 1998, Holly Sugar was issued **MAQP #1826-06** for the addition of a pebble lime hopper, which would use a pneumatic loading system when lime is loaded into the hopper. This permit alteration also clarified the language limiting total annual hours of operation for each CE boiler. This change increased the facility's actual emissions of PM and PM-10 by less than 1.5 tons for each pollutant.

On February 26, 1999, Holly Sugar was issued **MAQP #1826-07** to increase the throughput capacity of the pebble lime hopper. This increase was necessary to handle the variable quality of beets being processed. Particulate emissions increased by 13.51 tpy as a result of this permitting action. The increase in emissions resulting from the additional throughput will occur during pneumatic loading from the truck. The tank air vent will be ducted directly to the slaker building vent baghouse via a 10" duct. This is an existing baghouse on the slaker building and no new equipment was installed to perform the increased throughput. Also included in the permit alteration was clarification of some of the permit conditions. The language for the particulate matter and SO<sub>2</sub> conditions concerning the CE boilers were changed to indicate the original intent of the conditions. The language concerning the pulp dryer particulate limits was clarified by indicating it applied to each pulp dryer (#1 and #2) rather than both.

As a result of Notice of Violation (NOV), EK99-02, an extensive review revealed that Holly Sugar's replacement of the facility's diffuser required a permit alteration. On August 18, 1999, Holly Sugar submitted an application for the increase in emissions resulting in down stream units from the new diffuser. Affected down-stream units include both pulp dryers, the dry pulp cyclone, the pellet cooler cyclone and the pellet tank fan. The resulting increase in allowable PM and PM-10 emissions was 14.06 tons per year (tpy) and 11.60 tpy, respectively. The following conditions were added to **MAQP #1826-08** to ensure PSD significant levels would not be violated in the future:

1. Each dryer process rate (to include molasses) shall not exceed 114,192 tons during any one campaign. Holly Sugar shall maintain a daily log with a cumulative total of the current campaign production. This log shall be maintained on site, made available to Department personnel during facility visits, and submitted to the Department upon request.
2. Holly Sugar shall install, operate, and maintain a weighing device on each dryer to verify the process rate and to demonstrate compliance with the process rate limitation.
3. Each dryer is limited to burning natural gas only, except during emergency curtailment situations. Holly Sugar shall record in a log anytime fuel other than natural gas is combusted in the dryers. The log must be maintained on site, contain the date, time, type, and quantity of fuel fed into the dryers, and must be submitted to the Department upon request.

On November 20, 2001, the Department issued **MAQP #1826-09** to Holly Sugar. The administrative amendment included Holly Sugar's request to add the following language to Section II.A.16: "In the event of weigh device malfunction, Holly shall use an alternative monitoring method approved by the Department." **MAQP #1826-09** replaced **MAQP #1826-08**.

The alteration to **MAQP #1826-09** involved the installation and operation of a Superior Mohawk natural gas-fired boiler and the removal of a Cleaver Brooks natural gas-fired boiler. This permitting action also reflected the relocation of the Sly filter baghouse which was approved by the Department on May 2, 2000. The Sly Filter baghouse was moved from the sugar handling and storage area to Silos 1-4. The dust from the sugar handling and storage area was routed to the existing MAC baghouse, which vents inside the sugar warehouse. The change is considered de minimis as described in ARM 17.8.705 (1)(r) because the potential emissions are less than 15 tons/year and the proposal did not violate any conditions of the existing permit. **MAQP #1826-10** replaced **MAQP #1826-09**.

The Department received a request on October 18, 2002, from Sidney Sugars Incorporated to change the name of the Sidney, Montana facility from Holly Sugar Corporation to Sidney Sugars Incorporated (Sydney Sugars). **MAQP #1826-11** replaced **MAQP #1826-10**.

## **Title V Operating Permit Background**

**Operating Permit #OP1826-00** was issued as final on May 26, 2000. On correspondence dated November 02, 2000, Holly Sugar submitted a request for modification to Operating Permit #OP1826-00. This modification requested that in place of a supplier's certification of the gas sulfur content the permit states that only pipeline quality natural gas is fired for the Union Pacific boilers, Cleaver Brooks boiler, and pulp dryers. In addition, Holly Sugar requested the option to obtain a certification from the oil supplier or to sample each shipment of fuel oil delivered to the factory and have a laboratory analysis performed to determine sulfur content for fuel oil used in the Union Pacific boilers and pulp dryers. **Operating Permit #OP1826-01** replaced Operating Permit #OP1826-00.

The Department received a preconstruction permit application on January 11, 2002, for the installation and operation of a Superior Mohawk natural gas-fired boiler and the removal of a Cleaver Brooks natural gas-fired boiler. This alteration is also included in this permit modification. **Operating Permit #OP1826-02** replaced Operating Permit #OP1826-01.

In addition, the modification of Operating Permit #OP1826-01 also incorporated several de minimis and administrative amendment permit actions. Including, the relocation of the Sly filter baghouse which was a de minimis change occurring on May 2, 2000. The Sly Filter baghouse was moved from the sugar handling and storage area to Silos 1-4. Sly Filter baghouse emissions will remain the same as estimated in Operating Permit #OP1826-00. The dust from the sugar handling and storage area was routed to the existing MAC baghouse, which vents inside the sugar warehouse. Therefore, Section L for EU023 – Sugar Handling and Storage was removed from the permit. Also, silos 1-4 and the Sly Filter Baghouse were added to the insignificant emission units as IEU046.

Additional inclusion was provided from November 20, 2001, where the Department issued an administrative amendment which reflected Holly Sugar's request to add the following language to Section II.A.16 of MAQP #1826-09: "In the event of weigh device malfunction, Holly Sugar shall use an alternative monitoring method approved by the Department."

Finally, on February 1, 2002, Holly requested approval to install and operate a continuous vacuum pan to improve efficiency of extracting pure granulated sugar from the thick juice, which comes from the evaporator. The amount of material (juice) sent to the pan floor is limited by the factory evaporator capacity. The juice is boiled in the pans to produce a pure sugar product and a molasses by-product. The continuous vacuum pan will allow additional sugar extraction from the juice. Therefore, some of the sugar that would be lost to molasses is instead refined into pure sugar, which is sent to the silos. The vacuum pan is not an emitting unit, and potential to emit from the additional sugar production handling and storage would be approximately 1.6 tons per year. The existing sugar handling equipment will accommodate the additional sugar without modification, and the increase in emissions falls within the de minimis rule.

The Department issued **Operating Permit #OP1826-03** final and effective on December 9, 2002. The permit action was an administrative amendment to Operating Permit #OP1826-02. The Department received a request on October 18, 2002, from Sidney Sugars Incorporated (Sidney Sugars) to change the name of the Sidney, Montana facility from Holly Sugar Corporation to Sidney Sugars. The Department also updated the responsible official and the contact person. Operating Permit #OP1826-03 replaced Operating Permit #OP1826-02.

On September 29, 2003, the Department received a request from Sidney Sugars to update the facility's Title V Air Quality Permit #OP1826-03 so the permit language would be consistent with the new rules for the compliance certifications. The Department received an additional submittal on October 29, 2003 requesting an update the responsible official. **Operating Permit #OP1826-04** replaced Operating Permit #OP1826-03.

On January 26, 2005, the Department received a renewal application from Sidney Sugars. The application was deemed administratively and technically complete on February 24, 2005. The Department issued **Operating Permit #1826-05** final and effective on April 11, 2006. Operating Permit #OP1826-05 replaced Operating Permit #OP1826-04.

On February 20, 2009, the Department received an application from Sidney Sugars proposing the modification of three (3) existing control systems and the installation of emission control equipment on three (3) previously uncontrolled sources. The application was assigned **Operating Permit #OP1826-06** and included the following proposed alterations;

Existing Control Systems: Control systems on the following sources were to be abandoned and replaced with new baghouse control devices;

1. Coal Handling and Storage System (EU022)
2. Weibul Conditioner System (EU027).
3. Hoffman Vent (EU028)

New Control Systems: Control systems were installed on the following releases that were either previously fugitive or which exhausted to the interior portion of a building;

1. Warehouse Packaging Dust Collection - Previous dust collection equipment was vented to the interior of the sugar packaging warehouse. This collection system was abandoned and a new MAC Equipment baghouse was installed and vented to the exterior in late 2010.
2. Lime Kiln System - A MAC Equipment baghouse was installed on the Lime Kiln Vacuum System exhaust to control dust generated from lime handling and transfer activities. The new equipment was vented to the exterior of the building.
3. Sugar Silos Vacuum System - Silo exhaust was fitted with a MAC Equipment baghouse unit in early 2010 to control dust generated from the vacuum transfer of refined sugar.

After subsequent review of the permit application, the Department determined that these changes were de minimis in nature and did not constitute a major modification to the existing operating permit, therefore the application was withdrawn and application fee returned. Operating Permit #OP1826-06 was withdrawn.

On May 27, 2011, the Department received an application requesting the installation of a portable coal screen and an update of the operating permit to reflect the addition. The alteration was subsequently determined to be a de minimis action and was addressed through an administrative amendment. **Operating Permit #OP1826-08** replaced Operating Permit #OP1826-05.

This permit action was a renewal of Sidney Sugars Title V Operating Permit, for which the Department received a renewal application on November 15, 2010. The permit action also included the control equipment installed and identified through the aforementioned February 20, 2009 application, which was subsequently considered de minimis. These emission units were added to the insignificant source/activities table within the permit action. The operating permit was also updated to incorporate recently promulgated federal regulations which affect Sidney Sugars.

The Title V permit renewal action was under development and assigned #OP1826-07 prior to initiation of the administrative action that resulted in the issuance of Operating Permit #OP1826-08. Due to permitting timelines this renewal action was issued after Operating Permit #OP1826-08; Therefore, **Operating Permit #OP1826-07** replaced Operating Permit #OP1826-08.

**D. Current Permit Action**

The Department received notification on August 15, 2012, from Sidney Sugars, indicating a change of responsible official for the sugar refining plant. The current permit action reflects this change of responsible official. **Operating Permit #OP1826-09** replaces Operating Permit #OP1826-07.

**E. Taking and Damaging Analysis**

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or United States Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, of the Montana Code Annotated (MCA), the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

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

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit.



## **F. Compliance Designation**

The Sidney Sugars facility was last inspected on October 17, 2011. In addition to the on-site inspection, the Department conducted a review of reports/records submitted by Sidney Sugars during the period from November 23, 2009, to November 17, 2011, to encompass a Full Compliance Evaluation (FCE).

Findings and recommendations from the FCE included the following items. The Department made the recommendation that Sidney Sugars periodically review MAQP #1826-11 and Operating Permit #OP1826-09 to ensure Sidney Sugar's compliance with all permit conditions and that all logbook entries are being kept.

40 CFR 63, Subpart JJJJJ is applicable to Sidney Sugars. The affected boilers must achieve compliance with the work practice or management standard no later than March 21, 2012 and must achieve compliance with the emission limits no later than March 21, 2014. The Department recommended that Sidney Sugars read this subpart carefully and prepare a compliance plan to meet the compliance requirements.

Warning Letter #WLRG12-02 was issued to Sidney Sugars on December 20, 2012 for a violation of air quality permit conditions. The method 9 opacity tests were completed on October 26, 2011, and the opacity results showed that Sidney Sugars was in compliance. However, the opacity test report was not received by the Department until January 11, 2012, which was 77 days after the test was completed. Sidney Sugars violated Operating Permit #OP1826-08, Section III.B.15 and Section III.F.13 by submitting the report late. Also, the Department did not receive notice of the October 26, 2011, method 9 opacity tests. Failure to notify the Department at least 3 days prior to the opacity source test is a violation of Operating Permit #OP1826-08, Section III.B.15 and Section III.F.13. No further enforcement action has been taken pursuant to the warning letter and the Department considered the violations resolved. Documentation of the warning letter remains in the company file and may be considered in any future enforcement action relative to a history or pattern of violations.

## SECTION II. SUMMARY OF EMISSION UNITS

### A. Facility Process Description

This facility processes sugar beets for the production of sugar. Sugar beets are received at the plant by truck and are screened for dirt and rock removal. The beets are then either fed into the plant or stockpiled to be processed at a later time. Processing of the beets begins by first washing any residual dirt from the beets and slicing them into log thin strips referred to as cossettes. The cossettes are run into a diffuser where the beet sugar is removed with water and heat. The juice goes through several purifying stages and then is sent to the evaporators, which remove the liquids and allow crystallization. A total of two by-products of this process are molasses and pulp, which at the Sidney plant are mixed together to create pellets that are sold as livestock feed. Shipment of the sugar from the facility is completed by both rail and truck.

### B. Emission Units and Pollution Control Device Identification

The following table lists the significant emission units located at the Sidney Sugars facility.

Emission Unit ID	Description	Pollution Control
EU001	#1 combustion engineering (CE) lignite coal-fired boiler	Anderson 2000 Inc. Venturi scrubber and separator
EU002	#2 combustion engineering (CE) lignite coal-fired boiler	Anderson 2000 Inc. Venturi scrubber and separator
EU003	Union Pacific natural gas/fuel oil-fired boiler	none
EU005	Union Pacific natural gas/fuel oil-fired boiler	none
EU007	Superior Mohawk natural gas-fired boiler	none
EU022	Coal Handling and Storage <ul style="list-style-type: none"> <li>- Coal Belt Feeders (2)</li> <li>- Coal Screw Conveyors (4)</li> <li>- Crusher</li> <li>- Coal Elevator</li> <li>- Coal Bunker</li> </ul>	Baghouse Filter and enclosed conveyor(s)
EU024A&B	#1 Stearns-Roger Pulp Dryer	Cyclones
EU025A&B	#2 Stearns-Roger Pulp Dryer	Cyclones
EU026A&B	Dry Pulp Handling Screw Conveyors (18)	Dry Cyclone Separator
EU030	Pellet Mills and Cooler <ul style="list-style-type: none"> <li>- Pellet Mills (4)</li> <li>- Pellet Cooler</li> </ul>	Cyclone
EU031	Pellet Tank Exhaust Fan <ul style="list-style-type: none"> <li>- Mechanical Conveyors (3)</li> <li>- Oscillating Pellet Screen</li> <li>- Pneumatic Conveyor (2)</li> <li>- Pellet Tank</li> </ul>	none
EU043A	Slaker Building Vent <ul style="list-style-type: none"> <li>- Pebble Lime Hopper</li> <li>- Lime Kiln Pan Feeder</li> </ul>	Baghouse
EU020	Granulator	Wet Scrubber
EU027	Weibul Conditioner System	Baghouse Filter
EU028	Reclaiming sugar from silos and packaging (Hoffman Vent)	Baghouse Filter
EU047-056	Sugar Silos	Filter Vents
EU101	Beet Unloading and Handling <ul style="list-style-type: none"> <li>- Wet Flume Hopper (2)</li> </ul>	none

<b>Emission Unit ID</b>	<b>Description</b>	<b>Pollution Control</b>
	- Beet Pilers (on site)	
EU102	Coal Unloading - Truck Hoppers (2)	none
EU103	Coke Unloading and Handling - Railcar Unloader (belt conveyor) - Bucket Elevator - Coke Vibrating Feeder	none
EU104	Lime Unloading and Handling - Railcar Unloader (belt conveyor) - Limerock Reciprocating Feeder - Limerock Covered Belt Conveyor - Limerock Scalping Screen - Limerock Vibrating Feeder - Belt Conveyors (2)	none
EU500	Haul Roads	Water Application

### C. Categorically Insignificant Sources/Activities

The following table lists insignificant emission units located at the Sidney Sugars facility.

<b>Insignificant Emissions Unit ID</b>	<b>Description</b>
IEU004	Steam Vent Blowdown Tank Vent
IEU006	Boiler Feed Tank Vent
IEU008A, B, & C	Boiler Safety Vents
IEU009	Exhaust Steam Vents
IEU010	Generator Turbine Relief Vents
IEU011, IEU029 A & B, IEU046	Extraction & Purification Ammonia Vents
IEU012A, B, C & D	Pulp Dryer Building Roof Vent
IEU013A, B, C, D & E	Dried Pulp Warehouse Roof Vents
IEU014	Kiln Draft Fan
IEU015A & B	Kiln Building Vent Fans
IEU016	Oliver Building Vent
IEU17A, B, & C	Diffuser Roof Vents
IEU018A & B	Diffuser Vapor Vents
IEU019A, B, & C	Control House Roof Vents
IEU021	Slaker Building Wet Scrubber
IEU032	Maintenance Shop Vent
IEU033	Oliver Vacuum Pump Vent
IEU034	Sidney Carb Vent
IEU035A, B, & C	Benning Vent, Evaporator Supply Tank Vent, and Diffuser Supply Tank
IEU036	Suction for Oliver Air Compressor
IEU037	Second Carb Vent
IEU038	Dorr Tank Vent
IEU039	Press Steam Vapor Vent
IEU040	Oliver Wet Scrubber
IEU041	Wash House Roof Vent
IEU042	Oliver Roof Vent
IEU043B	Slaker Building Vent
IEU044	Tower Diffuser Vapor Vent
IEU045	Mixer Building Roof Vent

<b>Insignificant Emissions Unit ID</b>	<b>Description</b>
IEU046	Silos #1 to #4 and Sly Filter Baghouse
IEU108	Mud Pond Cleaning/Handling
IEU109	Boiler ash Pond Cleaning/Handling
IEU110	PCC Pond Cleaning/Handling
IEU111	Portable Coal Screen
IEU112 & IEU113	1,000 Gallon Diesel Steel Horizontal Above Ground Storage Tank (2)
IEU114	1,000 Gallon Gasoline - Steel Horizontal Above Ground Storage Tank
IEU115	50,000 Gallon No. 2 Fuel Oil - Steel Vertical-Fixed Roof Above Ground Storage Tank

## SECTION III. PERMIT CONDITIONS

### A. Emission Limits and Standards

Emission limits and standards for Operating Permit #OP1826-09 was established from limits and standards contained in Sidney Sugars MAQP #1826-11. Additional limits and standards are presented from applicable requirements of 40 Code of Federal Regulations (CFR) Part 63 and Part 60.

No source testing is established for the Union Pacific Boilers as these units are typically fired by natural gas, however, the boilers are configured to burn liquid fuels. The MAQP does not preclude these units from burning other fuels and the emission inventory addresses only gaseous fuel utilization, not considering fuel oil combustion emission. Previous operating permit increments included hourly limitations of fuel oil combustion beyond which source testing of sulfur dioxide was required to ensure conformance to the Department's revised testing (See permittee comments from Draft OP#1826-00). With the decrease in sulfur content within liquid fuel oils this restriction became obsolete. In lieu of the hourly operating threshold to determine testing, Sidney Sugars is required to calculate emissions resulting from the combustion of fuels, other than natural gas, and submit these calculations to the Department.

### B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance do not require the permit to impose the same level of rigor for all emissions units. Furthermore, they do not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for an insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

### C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

#### **D. Recordkeeping Requirements**

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least five years following the date of the generation of the record.

#### **E. Reporting Requirements**

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

**SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS**

<b>Rule Citation</b>	<b>Reason</b>
40 CFR 51.119 40 CFR 51.165 40 CFR 51.166 40 CFR 51.300-307 40 CFR 51, Appendix P 40 CFR 51, Appendix S 40 CFR 52.21 40 CFR 52.22(b) 40 CFR 52.24 40 CFR 52.29 40 CFR 58, Appendix B 40 CFR 62 40 CFR 70 and 71	Although these rules contain requirements for the regulatory authorities and not major sources, these rules can be used as authority to impose specific requirements on major sources.
40 CFR 61, Subpart M 40 CFR 82, Subpart F	These rules are always applicable and may contain specific requirements for compliance.
ARM 17.8.120 ARM 17.8.204 ARM 17.8.326 ARM 17.8.330 ARM 17.8.504 ARM 17.8.514 ARM 17.8.515 ARM 17.8.611 ARM 17.8.612 ARM 17.8.701 ARM 17.8.804 ARM 17.8.825 ARM 17.8.826 ARM 17.8.828 ARM 17.8.901 ARM 17.8.1001 ARM 17.8.1103	These rules may be procedural rules that have specific requirements that may become relevant to a major source during the permit span.  These rules may be applicable to a major source and may contain specific requirements of compliance.  These rules may consist of either a statement of purpose, applicability statement, regulatory definitions or a statement of incorporation by reference. These types of rules do not have specific requirements associate with them.

## SECTION V. FUTURE PERMIT CONSIDERATIONS

### A. MACT Standards

On March 21, 2011, the U.S. EPA promulgated final MACT standards under 40 Code of Federal Regulations (CFR) 63, Subpart DDDDDD and Subpart JJJJJJ, NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources and NESHAP for Industrial, Commercial, and Institutional Boilers at Area Sources, respectively. At this time the facility is not a major source of HAPs, therefore, affected sources are only potentially subject to Subpart JJJJJJ (referred to as the Area Source Boiler MACT).

Affected sources under the Area Source Boiler MACT are industrial, commercial, and institution boilers that burn coal, oil, biomass, or other solid and liquid non-waste materials. This rule does not apply to boilers burning only gaseous fuels or any solid waste. Current applicability is limited to Combustion Engineering (CE) Boilers #1 and #2, due to combustion of coal. Additional boilers may fall under regulation of the Area Source Boiler MACT in the event a change in combustion fuel(s) occur.

Also on March 21, 2011, the EPA announced that it planned to reconsider the area source boiler rules due to legal obligations under the Federal Clean Air Act (FCAA) for public participation, as the public did not have sufficient opportunity to comment on some of the provisions of the final rule. Although EPA is conducting a reconsideration of the area source boiler rule, affected sources subject to this standard must comply with all requirements of the rule as currently published in the Federal Register.

As of the issuance of this action, the Department is not aware of any future MACT standards to be promulgated that may affect the facility

### B. NESHAP Standards

As of the issuance date of this action, the Department is not aware of any future NESHAP standards to be promulgated that may affect the facility. The facility is currently subject to 40 CFR 61, Subpart M (National Emission Standard for Asbestos).

### C. NSPS Standards

As of the issuance date of this action, the Department is not aware of any future NSPS standards to be promulgated that may affect the facility. The facility is currently subject to 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants and Processing Plants and 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The Superior Mohawk Boiler is the affected source under Subpart Dc.

The fossil fuel-fired CE Boilers (EU001 & EU002) and the Union Pacific Boilers (EU003 & EU004) have a heat input capacity less than 250 million British Thermal Units per hour (MMBtu/hr); therefore 40 CFR 60, Subpart D does not apply. The CE Boilers and the # 3 Union Pacific Boiler (EU003), meet the applicable threshold for steam generating units greater than 100,000 MMBtu/hr, established within 40 CFR 60, Db, however, these units were installed or modified prior to the compliance applicability date of June 19, 1984 and are therefore not subject to the standard (A modification to permit a change in fuel from oil/natural gas to coal for the CE Boilers was issued by the Department on May 5, 1984). The Union Pacific Boiler #4 (EU004) is not subject to 40 CFR 60, Subpart Db as the heat input does not meet the applicability threshold and is not subject to 40 CFR 60, Subpart as it was installed prior to the June 9, 1989 applicability.



The 50,000 gallon fuel storage tank was constructed prior to June 11, 1973; therefore 40 CFR 60, Subpart K Standards of Performance for Storage Vessels for Petroleum Liquids does not apply.

#### **D. Risk Management Plan**

As of the issuance of this action, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.

#### **E. CAM Applicability**

An emitting unit located at a Title V facility that meets the following criteria listed in ARM 17.8.1503 is subject to Subchapter 15 and must develop a CAM Plan for that unit:

- The emitting unit is subject to an emission limitation or standard for the applicable regulated air pollutant (other than emission limits or standards proposed after November 15, 1990, since these regulations contain specific monitoring requirements,
- The emitting unit uses a control device to achieve compliance with such limit; and
- The emitting unit has potential pre-control device emissions of the applicable regulated air pollutant that is greater than major source thresholds.

Currently, emitting units EU001 and EU002, Combustion Engineering Boiler #1 and #2 respectively, meet the applicability criteria established in ARM 17.8.1503, therefore, Sidney Sugars is required to develop a CAM Plan for the facility. The details of the CAM Plan are located within Appendix E of Operating Permit #OP1826-09.

#### **F. PSD and Title V Greenhouse Gas Tailoring Rule**

On May 7, 2010, EPA published the “light duty vehicle rule” (Docket # EPA-HQ-OAR- 2009-0472, 75 FR 25324) controlling greenhouse gas (GHG) emissions from mobile sources, whereby GHG became a pollutant subject to regulation under the Federal and Montana Clean Air Act(s). On June 3, 2010, EPA promulgated the GHG “Tailoring Rule” (Docket # EPA-HQ-OAR-2009-0517, 75 FR 31514) which modified 40 CFR Parts 51, 52, 70, and 71 to specify which facilities are subject to GHG permitting requirements and when such facilities become subject to regulation for GHG under the PSD and Title V programs.

Under the Tailoring Rule, any PSD action (either a new major stationary source or a major modification at a major stationary source) taken for a pollutant or pollutants other than GHG that would become final on or after January 2, 2011, would be subject to PSD permitting requirements for GHG if the GHG increases associated with that action were at or above 75,000 TPY of carbon dioxide equivalent (CO<sub>2</sub>e) and greater than 0 TPY on a mass basis. Similarly, if such action were taken, any resulting requirements would be subject to inclusion in the Title V Operating Permit. Facilities which hold Title V permits due to criteria pollutant emissions over 100 TPY would need to incorporate any GHG applicable requirements into their operating permits for any Title V action that would have a final decision occurring on or after January 2, 2011.

Starting on July 1, 2011, PSD permitting requirements would be triggered for modifications that were determined to be major under PSD based on GHG emissions alone, even if no other pollutant triggered a major modification. In addition, sources that are not considered PSD major sources based on criteria pollutant emissions would become subject to PSD review if their facility-wide potential emissions equaled or exceeded 100,000 TPY of CO<sub>2</sub>e and 100 or 250 TPY of GHG on a mass basis depending on their listed status in ARM 17.8.801(22) and they undertook a permitting action with increases of 75,000 TPY or more of CO<sub>2</sub>e and greater than 0 TPY of GHG on a mass basis. With respect to Title V, sources not currently holding a Title V permit that have potential facility-wide emissions equal to or exceeding 100,000 TPY of CO<sub>2</sub>e and 100 TPY of GHG on a mass basis would be required to obtain a Title V Operating Permit.

Based on information provided by Sidney Sugars and calculations performed by the Department, Sidney Sugars' potential emissions exceed the GHG major source threshold of 100,000 TPY of CO<sub>2</sub>e for both Title V and PSD under the Tailoring Rule. Therefore, Sidney Sugars may be subject to GHG permitting requirements in the future.