

## **Statement of Basis**

**Permit to Construct No. P-2014.0044  
Project ID 61453**

**MillerCoors LLC  
Burley, Idaho**

**Facility ID 031-00021**

**Draft for Facility Review**

**June 24, 2015  
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*D.P.*

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS No.	Chemical Abstracts Service registry number
CBP	concrete batch plant
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
FEC	Facility Emissions Cap
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
HMA	hot mix asphalt
hp	horsepower
hr/yr	hours per consecutive 12 calendar month period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards

O&M	operation and maintenance
O <sub>2</sub>	oxygen
PAH	polyaromatic hydrocarbons
PC	permit condition
PCB	polychlorinated biphenyl
PERF	Portable Equipment Relocation Form
PM	particulate matter
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
PW	process weight rate
RAP	recycled asphalt pavement
RFO	reprocessed fuel oil
RICE	reciprocating internal combustion engines
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SCL	significant contribution limits
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
T2	Tier II operating permit
TAP	toxic air pollutants
TEQ	toxicity equivalent
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd <sup>3</sup>	cubic yards
µg/m <sup>3</sup>	micrograms per cubic meter

## **FACILITY INFORMATION**

### ***Description***

MillerCoors LLC operates an existing barley storage elevator located four miles west of Burley, Idaho on Highway 30. The Burley facility, originally constructed in the early 1970's, includes a barley storage elevator and a seedhouse. The elevator receives barley from farmers in the area by truck or railcar, cleans it, stores it until needed, and then loads it on to railcars and trucks for shipping.

### ***Permitting History***

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

June 12, 1991	Permit number 0440-0021, Initial permit for the grain elevator, Permit status (A, but will become S upon issuance of this permit)
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### ***Application Scope***

This PTC is for a permit modification at an existing minor facility.

The Burley Elevator currently has a receiving capacity of 500 tons per hour, a shipping capacity of 250 tons per hour, and a storage capacity of 450 million tons of barley. The Applicant has proposed to increase the receiving capacity of barley to 750 tons per hour and the shipping capacity of barley to 500 tons per hour. The storage capacity will not change as a result of this project.

The applicant has proposed to:

- Increase the receiving capacity of the elevator from 20,000 bushels of barley per hour (500 tons per hour) to 30,000 bushels of barley per hour (750 tons per hour)
- Increase shipping capacity of the elevator from 10,000 bushels of barley per hour (250 tons per hour) to 20,000 bushels of barley per hour (500 tons per hour)

The current storage capacity of this facility is 9 million bushels. The storage capacity will not be increased as a result of this project.

In addition, the Applicant has proposed to replace worn out equipment at the facility as a result of this project.

### ***Application Chronology***

November 28, 2014	DEQ received an application and an application fee.
Nov. 9 – Nov. 24, 2014	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
November 29, 2014	DEQ determined that the application was complete.
February 5, 2015	DEQ made available the draft permit and statement of basis for peer and regional office review.
February 19, 2015	DEQ made available the draft permit and statement of basis for applicant review.
June 5, 2015	DEQ received the permit processing fee.
June 24, 2015	DEQ issued the final permit and statement of basis.

## TECHNICAL ANALYSIS

### Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Source ID No.	Sources	Control Equipment	Emission Point ID No.
Grain Receiving Pit #1 (farm trucks or railcars), Headhouse and Grain Handling (including scalpers)	<u>Grain Receiving Pit #1 (farm trucks or railcars), Headhouse and Grain Handling (including scalpers):</u> Manufacturer: N/A Model: N/A Manufacture Date: Early 1970's Modified Date: 2015	<u>MX1-DH02-DHE1 Baghouse:</u> Manufacturer: Donaldson Model: 226RFWH10 PM <sub>10</sub> control efficiency: 99.4%	<u>MX1-DH02-DHE1 Baghouse exhaust:</u>
Grain Receiving Pit #2 (farm trucks) and Headhouse and Grain Handling (including cleaning string)	<u>Grain Receiving Pit #2 (farm trucks) and Headhouse and Grain Handling (including cleaning string):</u> Manufacturer: N/A Model: N/A Manufacture Date: Early 1970's	<u>Pit #2 Baghouse:</u> Manufacturer: Donaldson Model: 226RFWH10 PM <sub>10</sub> control efficiency: 99.4%	<u>Pit #2 Baghouse exhaust:</u>
Headhouse and Grain Handling (including scalpers) and Pit #1 Grain Loadout	<u>Headhouse and Grain Handling (including scalpers) and Pit #1 Grain Loadout:</u> Manufacturer: N/A Model: N/A Manufacture Date: Early 1970's Modified Date: 2015	<u>MX1-DH01-DHE1 Baghouse:</u> Manufacturer: Donaldson Model: 226RFWH10 PM <sub>10</sub> control efficiency: 99.4%	<u>MX1-DH01-DHE1 Baghouse exhaust:</u>
Headhouse and Grain Handling (including scalpers), Headhouse and Grain Handling (including cleaning string), and Grain Loadout to railcars and trucks	<u>Headhouse and Grain Handling (including scalpers), Headhouse and Grain Handling (including cleaning string), and Grain Loadout to railcars and trucks:</u> Manufacturer: N/A Model: N/A Manufacture Date: Early 1970's Modified Date: 2015	<u>MX1-DH03-DHE1 Baghouse:</u> Manufacturer: Donaldson Model: 226RFWH10 PM <sub>10</sub> control efficiency: 99.4%	<u>MX1-DH03-DHE1 Baghouse exhaust:</u>

### Emissions Inventories

#### Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition of Potential to Emit an emission inventory was developed for the grain handling facility consisting of receiving-unloading, headhouse and grain handling, storage, loadout for shipping, and the seedhouse operation. Emissions estimates of PM<sub>10</sub> and PM<sub>2.5</sub> pollutants were based on emission factors from AP-42, Table 9.9.1-1 (3/03), operation of 8,760 hours per year, and process information specific to the facility for this proposed project.

### **Uncontrolled Potential to Emit**

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall **not** be treated as part of its design **since** the limitation or the effect it would have on emissions **is not** state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a “Synthetic Minor” source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or HAP above the applicable Major Source threshold without permit limits.

The following table presents the uncontrolled Potential to Emit for regulated air pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For this grain handling operation uncontrolled Potential to Emit is based upon uncontrolled emissions for grain elevators.

**Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS**

Source	PM <sub>10</sub>	PM <sub>2.5</sub>
	T/yr	T/yr
<b>Point Sources</b>		
Grain Receiving - Unloading	193.8	32.9
Headhouse and Grain Handling	148.9	25.4
Grain storage	20.7	3.6
Grain Loadout for Shipping	63.5	10.7
Seedhouse	37.0	6.3
<b>Total, Point Sources</b>	<b>463.90</b>	<b>78.90</b>

The only hazardous air pollutant (HAP) emitted at this facility is a small amount of phosgene gas.

### **Pre-Project Potential to Emit**

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

The following table presents the pre-project potential to emit for all criteria pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

**Table 3 PRE-PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS**

Source	PM <sub>10</sub>		PM <sub>2.5</sub>	
	lb/hr <sup>(a)</sup>	T/yr <sup>(b)</sup>	lb/hr <sup>(a)</sup>	T/yr <sup>(b)</sup>
Grain Receiving - Unloading	0.17	0.76	0.05	0.22
Headhouse and Grain Handling	0.20	0.87	0.06	0.25
Grain storage	3.15	13.80	0.55	2.41
Grain Loadout for Shipping	0.04	0.19	0.01	0.05
Seedhouse	0.37	1.64	0.07	0.31
<b>Pre-Project Totals</b>	<b>3.93</b>	<b>17.26</b>	<b>0.74</b>	<b>3.24</b>

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.

b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

### **Post Project Potential to Emit**

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria pollutants from all emissions units at the facility as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

**Table 4 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS**

Source	PM <sub>10</sub>		PM <sub>2.5</sub>	
	lb/hr <sup>(a)</sup>	T/yr <sup>(b)</sup>	lb/hr <sup>(a)</sup>	T/yr <sup>(b)</sup>
Grain Receiving - Unloading	0.18	0.80	0.05	0.23
Headhouse and Grain Handling	0.14	0.62	0.04	0.18
Grain storage	3.35	14.66	0.58	2.56
Grain Loadout for Shipping	0.06	0.26	0.02	0.08
Seedhouse	0.37	1.64	0.07	0.31
<b>Post Project Totals</b>	<b>4.10</b>	<b>17.98</b>	<b>0.76</b>	<b>3.36</b>

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.

b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

### **Change in Potential to Emit**

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants.

**Table 5 CHANGES IN POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS**

Source	PM <sub>10</sub>		PM <sub>2.5</sub>	
	lb/hr	T/yr	lb/hr	T/yr
Pre-Project Potential to Emit	3.93	17.26	0.74	3.24
Post Project Potential to Emit	4.10	17.98	0.76	3.36
<b>Changes in Potential to Emit</b>	<b>0.17</b>	<b>0.72</b>	<b>0.02</b>	<b>0.12</b>

### **Non-Carcinogenic TAP Emissions**

Per the Applicant the MillerCoors LLC facility does not use phosgene as a regular part of operations, but has infrequently used phosgene gas to deal with insect infestations. The facility was originally constructed in the early 1970's and the use of phosgene dates back to that time. Phosgene use over the years has not increased and, in fact, has probably decreased. Phosgene use is unrelated to the planned modification and phosgene use and emissions will not increase following construction.

### **Carcinogenic TAP Emissions**

There are no carcinogenic toxic air pollutants (TAPs) emitted at this facility.

### **Post Project HAP Emissions**

As discussed previously the only hazardous air pollutant (HAP) emitted at this facility is a small amount of phosgene gas.

### **Ambient Air Quality Impact Analyses**

An ambient air quality impact analyses document was not required to be performed as a result of this project because the proposed increases in PM<sub>10</sub> and PM<sub>2.5</sub> were not greater than the Level I and Level II modeling thresholds. Therefore, per DEQ policy modeling to demonstrate compliance with NAAQS was not required.



## REGULATORY ANALYSIS

### ***Attainment Designation (40 CFR 81.313)***

The facility is located in Cassia County, which is designated as attainment or unclassifiable for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

### ***Facility Classification***

“Synthetic Minor” classification for criteria pollutants is defined as the uncontrolled Potential to Emit for criteria pollutants are above the applicable major source thresholds and the Potential to Emit for criteria pollutants fall below the applicable major source thresholds. Therefore, the following table compares the uncontrolled Potential to Emit and the Potential to Emit for criteria pollutants to the Major Source thresholds to determine if the facility will be “Synthetic Minor.”

**Table 6 UNCONTROLLED PTE AND PTE FOR REGULATED AIR POLLUTANTS COMPARED TO THE MAJOR SOURCE THRESHOLDS**

Pollutant	Uncontrolled PTE (T/yr)	PTE (T/yr)	Major Source Thresholds (T/yr)	Uncontrolled PTE Exceeds the Major Source Threshold and PTE Exceeds the Major Source Threshold?
PM <sub>10</sub>	463.90	78.90	100	Yes
PM <sub>2.5</sub>	72.90	3.36	100	No
SO <sub>2</sub>	0.0	0.0	100	No
NO <sub>x</sub>	0.0	0.0	100	No
CO	0.0	0.0	100	No
VOC	0.0	0.0	100	No
CO <sub>2</sub> e	0.0	0.0	100,000	No

As demonstrated in Table 6 the facility has an uncontrolled potential to emit for PM<sub>10</sub> emissions are greater than the Major Source thresholds of 100 T/yr and a PTE for PM<sub>10</sub> and PM<sub>2.5</sub> emissions less than 100 T/yr. Therefore, this facility is designated as a Synthetic Minor facility for PM<sub>10</sub> emissions.

### ***Permit to Construct (IDAPA 58.01.01.201)***

IDAPA 58.01.01.201

Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the modified emissions source. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

### ***Tier II Operating Permit (IDAPA 58.01.01.401)***

IDAPA 58.01.01.401

Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

### ***Visible Emissions (IDAPA 58.01.01.625)***

IDAPA 58.01.01.625

Visible Emissions

The sources of PM<sub>10</sub> emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. However, the emissions sources at this facility are also subject to the visible emissions requirements of NSPS Subpart DD. As the requirements of NSPS Subpart DD are more restrictive, only those requirements will be required in the permit (see the NSPS Subpart DD discussion following).

## **Rules for Control of Fugitive Dust (IDAPA 58.01.01.651)**

IDAPA 58.01.01.650

Rules for Control of Fugitive Dust

The sources of fugitive dust emissions at this facility are subject to IDAPA 58.01.01.650. This Rule states that "All reasonable precautions shall be taken to prevent particulate matter from becoming airborne. In determining what is reasonable, consideration will be given to factors such as the proximity of dust emitting operations to human habitations and/or activities, the proximity to mandatory Class I Federal Areas and atmospheric conditions which might affect the movement of particulate matter. Some of the reasonable precautions may include, but are not limited to, the following: ... Use of Control Equipment. Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations." This requirement is assured by Permit Condition 2.5 which incorporates the fugitive requirements of NSPS Subpart DD (see the NSPS Subpart DD discussion following).

## **Particulate Matter – Process Weight Limitations (IDAPA 58.01.01.700)**

IDAPA 58.01.01.700

Particulate Matter – Process Weight Limitations

IDAPA 58.01.01.700 through 703 set PM emission limits for process equipment based on when the piece of equipment commenced operation and the piece of equipment's process weight (PW) in pounds per hour (lb/hr). IDAPA 58.01.01.701 and IDAPA 58.01.01.702 establish PM emission limits for equipment that commenced operation on or after October 1, 1979 and for equipment operating prior to October 1, 1979, respectively. As this facility is being modified, it is subject to the requirements of facilities that commenced operation after October 1, 1979.

For equipment that commenced operation on or after October 1, 1979, the PM allowable emission rate (E) is based on one of the following four equations:

IDAPA 58.01.01.701.01.a: If  $PW < 9,250 \text{ lb/hr}$ ;  $E = 0.045 (PW)^{0.60}$

IDAPA 58.01.01.701.01.b: If  $PW \geq 9,250 \text{ lb/hr}$ ;  $E = 1.10 (PW)^{0.25}$

For the existing Grain Receiving - Unloading operation and the Headhouse and Grain Handling operation emissions units proposed to be modified as a result of this project with a proposed throughput of 750 T/hr, E is calculated as follows:

Proposed throughput =  $750 \text{ T/hr} \times 2,000 \text{ lb/1 T} = 1,500,000 \text{ lb/hr}$

Therefore, E is calculated as:

$E = 1.10 \times PW^{0.25} = 1.10 \times (1,500,000)^{0.25} = 38.5 \text{ lb-PM/hr}$

As presented previously in the Emissions Inventories Section of this evaluation the post project PTE for this emissions unit is 0.32 lb-PM<sub>10</sub>/hr (0.18 lb/hr from the Grain Receiving - Unloading operation + 0.14 lb/hr from the Headhouse and Grain Handling operation). Assuming PM is 50% PM<sub>10</sub> means that PM emissions will be 0.64 lb-PM/hr (0.32 lb-PM<sub>10</sub>/hr ÷ 0.5 lb-PM<sub>10</sub>/lb-PM). Therefore, compliance with this requirement has been demonstrated.

For the existing Grain storage operation, the Grain Loadout for Shipping, and the Seedhouse operation emissions units proposed to be modified as a result of this project with a proposed throughput of 500 T/hr, E is calculated as follows:

Proposed throughput =  $500 \text{ T/hr} \times 2,000 \text{ lb/1 T} = 1,000,000 \text{ lb/hr}$

Therefore, E is calculated as:

$E = 1.10 \times PW^{0.25} = 1.10 \times (1,000,000)^{0.25} = 34.8 \text{ lb-PM/hr}$

As presented previously in the Emissions Inventories Section of this evaluation the post project PTE for this emissions unit is 3.78 lb-PM<sub>10</sub>/hr (3.35 lb/hr from the Grain Storage operation + 0.06 lb/hr from the Grain Loadout for Shipping operation + 0.37 lb/hr from the Seedhouse operation). Assuming PM is 50% PM<sub>10</sub> means that PM emissions will be 7.56 lb-PM/hr (3.78 lb-PM<sub>10</sub>/hr ÷ 0.5 lb-PM<sub>10</sub>/lb-PM). Therefore, compliance with this requirement has been demonstrated.

### ***Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)***

IDAPA 58.01.01.301

Requirements to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM<sub>10</sub> and PM<sub>2.5</sub> or 10 tons per year for any one HAP or 25 tons per year for all HAP combined (there are no HAPs emitted from this facility) as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

### ***PSD Classification (40 CFR 52.21)***

40 CFR 52.21

Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is/is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

### ***NSPS Applicability (40 CFR 60)***

Because the facility has a grain storage operation the following NSPS requirement apply to this facility:

- 40 CFR 60, Subpart DD - Standards of Performance for Grain Elevators

The applicable requirements of the subpart are highlighted in yellow.

#### **40 CFR 60, Subpart DD - Standards of Performance for Grain Elevators**

§ 60.300

Applicability and designation of affected facility.

(a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under §60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.

As this facility has a truck unloading station, truck loading station, railcar loading station, railcar unloading station, and grain handling operations being modified after August 3, 1978 these operations are subject to this subpart.

§ 60.301

Definitions

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Grain means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.

(b) Grain elevator means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.

(c) Grain terminal elevator means any grain elevator which has a permanent storage capacity of more than 88,100 m<sup>3</sup> (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots. As discussed previously in the Application Scope Section this facility has a storage capacity of 9 million bushels.

(d) Permanent storage capacity means grain storage capacity which is inside a building, bin, or silo.

(e) Railcar means railroad hopper car or boxcar.

(f) Grain storage elevator means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m<sup>3</sup> (ca. 1 million bushels).

(g) Process emission means the particulate matter which is collected by a capture system.

(h) Fugitive emission means the particulate matter which is not collected by a capture system and is released directly into the atmosphere from an affected facility at a grain elevator.

(i) Capture system means the equipment such as sheds, hoods, ducts, fans, dampers, etc. used to collect particulate matter generated by an affected facility at a grain elevator.

(j) Grain unloading station means that portion of a grain elevator where the grain is transferred from a truck, railcar, barge, or ship to a receiving hopper.

(k) Grain loading station means that portion of a grain elevator where the grain is transferred from the elevator to a truck, railcar, barge, or ship.

(l) Grain handling operations include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpings, cleaners, trippers, and the headhouse and other such structures.

(m) Column dryer means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in one or more continuous packed columns between two perforated metal sheets.

(n) Rack dryer means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in a cascading flow around rows of baffles (racks).

(o) Unloading leg means a device which includes a bucket-type elevator which is used to remove grain from a barge or ship.

§ 60.302 Standards for particulate matter.

(a) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any gases which exhibit greater than 0 percent opacity from any:

(1) Column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch).

(2) Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh.

There are no dryers at this facility. Therefore, these requirements are not applicable at this facility.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility except a grain dryer any process emission which:

(1) Contains particulate matter in excess of 0.023 g/dscm (ca. 0.01 gr/dscf).

(2) Exhibits greater than 0 percent opacity.

This requirement is assured by Permit Condition 2.4.

(c) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emission from:

- (1) Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.
- (2) Any grain handling operation which exhibits greater than 0 percent opacity.
- (3) Any truck loading station which exhibits greater than 10 percent opacity.
- (4) Any barge or ship loading station which exhibits greater than 20 percent opacity.

This requirement is assured by Permit Condition 2.5.

(d) The owner or operator of any barge or ship unloading station shall operate as follows:

- (1) The unloading leg shall be enclosed from the top (including the receiving hopper) to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper.
- (2) The total rate of air ventilated shall be at least 32.1 actual cubic meters per cubic meter of grain handling capacity (ca. 40 ft<sup>3</sup>/bu).
- (3) Rather than meet the requirements of paragraphs (d)(1) and (2) of this section the owner or operator may use other methods of emission control if it is demonstrated to the Administrator's satisfaction that they would reduce emissions of particulate matter to the same level or less.

This facility does not perform barge or ship unloading. Therefore, these requirements are not applicability at this facility.

#### § 60.303

#### Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.302 as follows:

- (1) Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.70 dscm (60 dscf). The probe and filter holder shall be operated without heaters.
- (2) Method 2 shall be used to determine the ventilation volumetric flow rate.
- (3) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

- (1) For Method 5, Method 17 may be used.

This requirement is assured by Permit Condition 2.13.

#### § 60.304

#### Modifications.

(a) The factor 6.5 shall be used in place of “annual asset guidelines repair allowance percentage,” to determine whether a capital expenditure as defined by §60.2 has been made to an existing facility.

(b) The following physical changes or changes in the method of operation shall not by themselves be considered a modification of any existing facility:

- (1) The addition of gravity loadout spouts to existing grain storage or grain transfer bins.
- (2) The installation of automatic grain weighing scales.

(3) Replacement of motor and drive units driving existing grain handling equipment.

(4) The installation of permanent storage capacity with no increase in hourly grain handling capacity.

These requirements apply to this facility.

### ***NESHAP Applicability (40 CFR 61)***

The facility is not subject to any NESHAP requirements in 40 CFR 61.

### ***MACT Applicability (40 CFR 63)***

The facility is not subject to any MACT standards in 40 CFR Part 63.

### ***Permit Conditions Review***

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

#### ***PERMIT SCOPE***

Permit Condition 1.1 describes the modifications to the existing processes at the facility process being permitted as a result of this project.

Permit Condition 1.3 explains which previous permit for the facility is being replaced as a result of this project.

Table 1.1 was updated to reflect the new equipment being installed as a result of this project.

#### ***BARLEY STORAGE ELEVATOR***

Permit Condition 2.1 provides the process description for the emissions units permitted in this section of the permit.

As discussed previously Permit Conditions 2.4 and 2.5 specify the emissions limit requirements of NSPS Subpart DD.

Permit Condition 2.6 requires that the daily grain receiving throughput not exceed the limit proposed by the Applicant.

Permit Condition 2.7 requires that the daily grain shipping throughput not exceed the limit proposed by the Applicant.

Permit Condition 2.8 requires that baghouses be installed and operated to control emissions from the specified sources as proposed by the Applicant.

Permit Condition 2.9 incorporates standard DEQ procedure requirements for baghouses.

Permit Condition 2.10 requires that baghouses be maintained and operated according to the manufacturer's specifications and recommendations and the Baghouse Procedures document.

Permit Condition 2.11 requires the daily grain receiving throughput be monitored and recorded by the Applicant.

Permit Condition 2.12 requires the daily grain shipping throughput be monitored and recorded by the Applicant.

As discussed previously Permit Condition 2.13 specify the test methods and procedures requirements of NSPS Subpart DD.

Permit Condition 2.14 was included per current DEQ guidance on permits that include NSPS requirements.

## **PUBLIC REVIEW**

### ***Public Comment Opportunity***

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

## **APPENDIX A – EMISSIONS INVENTORIES**



## MillerCoors LLC Burley Elevator Project Potential Emissions Summary

### Differences Between Current Emissions and Emissions Following Project - Calculated Using the Same Emission Factors

	Receiving and Shipping Capacity (bushels per hour)	Controlled Emissions (tons/year)			Controlled Emissions 24-hour Average <sup>a</sup> (lb/hour)	
		PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
After Project	Receiving - 30,000 Shipping - 20,000	66.26	17.99	3.36	4.11	0.767
Before Project	Receiving - 20,000 Shipping - 10,000	62.96	17.25	3.25	3.94	0.741
<b>Difference</b>	<b>Receiving and Shipping - 10,000</b>	<b>3.30</b>	<b>0.73</b>	<b>0.11</b>	<b>0.17</b>	<b>0.026</b>
Idaho Level I Modeling Thresholds <sup>b</sup>				0.35	0.22	0.054
Idaho Level II Modeling Thresholds <sup>b</sup>				4.1	2.6	0.63

<sup>a</sup>The elevator and seedhouse are operated during the night during harvest. Following the project, operation of the elevator at night is not expected and post-project emissions have been calculated based on 17 hour/day operation, 6205 hours/year.

<sup>b</sup>From State of Idaho Guideline for Performing Air Quality Impact Analyses, September 2013, Table 2, Page 14

### Differences Between Current Emissions and Emissions Following Project by Emission Unit - Calculated Using the Same Emission Factors

	PM (tons/year)			PM <sub>10</sub> (tons/year)			PM <sub>2.5</sub> (tons/year)		
	After Project	Before Project	Difference	After Project	Before Project	Difference	After Project	Before Project	Difference
Receiving - Unloading	1.08	1.02	0.06	0.80	0.76	0.05	0.23	0.22	0.01
Headhouse and Grain Handling <sup>a</sup>	0.70	0.99	-0.29	0.62	0.87	-0.25	0.18	0.25	-0.07
Storage	58.17	54.75	3.42	14.66	13.80	0.86	2.56	2.41	0.15
Loadout for Shipping	0.35	0.25	0.10	0.26	0.19	0.08	0.08	0.05	0.02
Seedhouse	5.95	5.95	0.00	1.64	1.64	0.00	0.31	0.31	0.00
<b>Total</b>	<b>66.26</b>	<b>62.96</b>	<b>3.30</b>	<b>17.99</b>	<b>17.25</b>	<b>0.73</b>	<b>3.36</b>	<b>3.25</b>	<b>0.11</b>

<sup>a</sup>Headhouse and Grain Handling includes cleaning. Grain will no longer be cleaned after storage and before loadout for shipping. Reduction in emissions occurs as a result of the reduction in cleaning throughput. Existing Pit #1 cleaning equipment will be abandoned in place.

### PM<sub>10</sub> Difference Between Permit 0440-0021 Appendix A Limits and Facility Emission Following Project

	Receiving and Shipping Capacity (bushels per hour)	PM <sub>10</sub>	
		Controlled Emissions (tons/year)	Controlled Emissions 24-hour Average <sup>a</sup> (lb/hour)
After Project	Receiving - 30,000 Shipping - 20,000	17.99	4.11
Before Project <sup>b</sup>	Receiving - 20,000 Shipping - 10,000	19.00	4.33
<b>Difference</b>	<b>Receiving and Shipping - 10,000</b>	<b>-1.01</b>	<b>-0.22</b>

<sup>a</sup>The elevator and seedhouse are operated during the night during harvest. Following the project, operation of the elevator at night is not expected and post-project emissions have been calculated based on 17 hour/day operation, 6205 hours/year.

<sup>b</sup>From Permit 0440-0021, Appendix "A". Permit did not include the seedhouse.

**MillerCoors LLC Burley Elevator Potential Emissions after Optimization Project**

Elevator Maximum Daily Hours of Operation <sup>a</sup>	17	hours/day
Elevator Maximum Annual Hours of Operation	6205	hours/year

Seedhouse Maximum Daily Hours of Operation <sup>a</sup>	24	hours/day
Seedhouse Maximum Annual Hours of Operation	8760	hours/year

Barley Density	50	lb/bushel
Seed Density	52	lb/bushel

ELEVATOR	Pit 1 bushels/hour	Pit 2 bushel/hour	Pit 1 tons/hour	Pit 2 tons/hour	Total tons/hour	Total tons/year
Grain Receiving	20,000	10,000	500	250	750	4,653,750
Grain Shipping	20,000		500		500	3,102,500

SEEDHOUSE	bushels/hour <sup>c</sup>	tons/hour	tons/year
Seedhouse Throughput	2,000	52	455,520.00

ELEVATOR	Throughput (tons/hour)	Emission Factors from AP-42, Table 9.9.1-1 (lb/ton grain)			Uncontrolled Emissions (lbs/hour)			Controlled Emissions (lbs/hour) <sup>b</sup>			Annual Emissions (tons/year)		
		PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
Receiving - Unloading Pits - Straight Truck (SCC 3-02-005-05) <sup>c</sup>	750	0.18	0.059	0.010	135.00	44.25	7.50	0.35	0.26	0.08	1.08	0.80	0.23
Headhouse and Grain Handling [Includes cleaning] (SCC 3-02-005-30)] <sup>d</sup>	1,000	0.061	0.034	0.0058	61.00	34.00	5.80	0.23	0.20	0.06	0.70	0.62	0.18
Storage Bins [existing] (SCC 3-02-005-04)	750	0.025	0.0063	0.0011	18.75	4.73	0.83	Uncontrolled			58.17	14.66	2.56
Loadout for Shipping - Truck (SCC 3-02-005-63) <sup>e</sup>	500	0.086	0.029	0.0049	43.00	14.50	2.45	0.11	0.08	0.02	0.35	0.26	0.08

Elevator Peak Hour Emissions Through Baghouses	0.69	0.54	0.16
Elevator 24-Hour Average Through Baghouses (lbs/hour)	0.49	0.38	0.11
Elevator Maximum Annual Through Baghouses (tons/year)	2.14	1.68	0.49
Elevator Peak Hour Emissions from Storage	18.75	4.73	0.83
Elevator 24-Hour Average from Storage (lbs/hour)	13.28	3.35	0.58
Elevator Maximum Annual from Storage (tons/year)	58.17	14.66	2.56
Elevator Peak Hour (lbs/hour)	19.44	5.27	0.98
Elevator 24-Hour Average (lbs/hour)	13.77	3.73	0.70
Elevator Maximum Annual (tons/year)	60.31	16.34	3.05

**SEEDHOUSE - Existing no Changes**

Unloading Pits - Straight Truck (SCC 3-02-005-05) <sup>c</sup>	52	0.18	0.059	0.010	9.36	3.07	0.52	0.02	0.02	0.005
Storage Bins (SCC 3-02-005-04)	52	0.025	0.0063	0.0011	1.30	0.33	0.06	Uncontrolled		
Headhouse and Grain Handling [Includes cleaning] (SCC 3-02-005-30)] <sup>d</sup>	104	0.061	0.034	0.0058	6.34	3.54	0.60	0.02	0.02	0.006
Loadout for Shipping - Truck (SCC 3-02-005-63) <sup>e</sup>	52	0.086	0.029	0.0049	4.47	1.51	0.25	0.01	0.009	0.003

Seedhouse Peak Hour Emissions Through Baghouses	0.06	0.05	0.01
Seedhouse Peak Hour Emissions from Storage	1.30	0.33	0.06
Seedhouse Peak Hour (lbs/hour)	1.36	0.38	0.07
Seedhouse 24-Hour Average (lbs/hour)	1.36	0.38	0.07
Seedhouse Maximum Annual (tons/year)	5.95	1.64	0.31

Total Peak Hour Emissions Through Baghouses	0.75	0.59	0.17
Total Peak Hour Emissions from Storage	20.05	5.05	0.88
Total Peak Hour (lbs/hour)	20.80	5.64	1.05
Total 24-Hour Average (lbs/hour)	15.13	4.11	0.77
Total Maximum Annual (tons/year)	66.26	17.99	3.36

<sup>a</sup>The elevator and seedhouse are often operated through the night during harvest. Following the project, the elevator will not be operated at night.

<sup>b</sup>Emissions from the elevator and seedhouse are controlled by baghouses, with the exception of emissions from the storage bins and flat storage which are uncontrolled and emitted through passive vents.

<sup>c</sup>Grain is delivered by a variety of truck types and can be delivered by railcar. The emission factor for straight trucks is the highest and will be used for all deliveries.

<sup>d</sup>As indicated in AP-42, Table 9.9.1-1 includes "(legs, conveyors, belts, distributor, scale, enclosed cleaners, etc.)". After the project, grain from Pit 1 will only go through the cleaner once. Grain from Pit 2 and the seedhouse are cleaned twice. To account for emissions from this additional cleaning the throughput from Pit 2 and the seedhouse are doubled in the total throughput for this activity.

<sup>e</sup>Grain from the elevator is shipped primarily by railcar with a small amount shipped by truck. As truck shipping has the higher emission factor, emissions are conservatively calculated using the truck factor. Seed shipping is exclusively by truck.

MillerCoors LLC Burley Elevator Potential Emissions after Optimization Project

Particle Size (microns)	Baghouse Control Efficiency
0 - 2.5	99.0%
2.5 - 10	99.5%
>10'	99.9%

From AP-42, Table B.2-3, Fabric Filter Low Temperature

Assumed

PM Overall Control Efficiency	PM <sub>10</sub> Overall Control Efficiency
PM	PM <sub>10</sub>
99.74%	99.42%
99.63%	99.41%
99.74%	99.42%

The baghouse used to control emissions from the newest existing cleaning string is listed in Permit 0440-0021 as having an overall design control efficiency of 99.99%. As emissions from cleaning are contained within the "headhouse and grain handling" emission factor, and the new baghouse that will control the grain transfers is conservatively assumed to achieve a 99.9% control efficiency for particles 10 micrometers and larger during its operational life, a control efficiency for this size category of 99.9% is used.

Maximum Annual Operating Hours =  $\frac{\text{hours}}{\text{day}} \times \frac{365 \text{ days}}{\text{year}}$

Grain and Seed Received and Shipped  $\frac{\text{tons}}{\text{hour}} = \frac{\text{bushels}}{\text{hour}} \times \frac{\text{lb}}{\text{bushel}} \times \frac{\text{tons}}{2000 \text{ lb}}$

Throughput for Elevator Headhouse and Grain Handling  $\frac{\text{tons}}{\text{hour}} = \text{Total Elevator Throughput } \frac{\text{tons}}{\text{hour}} + \text{Pit 2 Throughput } \frac{\text{tons}}{\text{hour}}$

Throughput for Seedhouse Headhouse and Grain Handling  $\frac{\text{tons}}{\text{hour}} = \text{Total Seedhouse Throughput } \frac{\text{tons}}{\text{hour}} \times 2$

#### Emissions

Uncontrolled Emissions  $\text{tons} = \frac{\text{lb}}{\text{ton grain}} \times \frac{\text{tons grain}}{\text{hour}} \times \frac{\text{tons}}{2000 \text{ lbs}}$

#### Controlled Emissions:

PM Emissions  $\frac{\text{tons}}{\text{hour}} = [(\text{Uncontrolled PM Emissions } \frac{\text{tons}}{\text{hour}} - \text{Uncontrolled PM}_{10} \text{ Emissions } \frac{\text{tons}}{\text{hour}}) \times (1 - \text{Control Efficiency PM}_{2.5-10})] + \text{Controlled PM}_{10} \text{ Emissions } \frac{\text{tons}}{\text{hour}}$

PM<sub>10</sub>  $\frac{\text{tons}}{\text{hour}} = [(\text{Uncontrolled PM}_{10} \text{ Emissions } \frac{\text{tons}}{\text{hour}} - \text{Uncontrolled PM}_{2.5} \text{ Emissions } \frac{\text{tons}}{\text{hour}}) \times (1 - \text{Control Efficiency PM}_{2.5-10})] + \text{Controlled PM}_{2.5} \text{ Emissions } \frac{\text{tons}}{\text{hour}}$

PM<sub>2.5</sub>  $\frac{\text{tons}}{\text{hour}} = \text{Uncontrolled PM}_{2.5} \frac{\text{tons}}{\text{hour}} \times (1 - \text{PM}_{2.5} \text{ Control Efficiency})$

Controlled Emissions = Uncontrolled Emissions x (1-Overall Control Efficiency)

so:

Overall Control Efficiency =  $1 - \frac{\text{Controlled Emissions}}{\text{Uncontrolled Emissions}}$

24-Hour Average Emissions  $\frac{\text{lb}}{\text{hour}} = \text{Peak Hour Emissions } \frac{\text{lb}}{\text{hour}} \times \frac{\text{Operating hours}}{24 \text{ hour period}}$

Annual Emissions  $\frac{\text{tons}}{\text{year}} = \text{Peak Hour Emissions } \frac{\text{lb}}{\text{hour}} \times \frac{\text{hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}}$

**MillerCoors LLC Burley Elevator Current Potential Emissions**

Elevator Maximum Daily Hours of Operation <sup>a</sup>	24	hours/day
Elevator Maximum Annual Hours of Operation	8760	hours/year

Seedhouse Maximum Daily Hours of Operation <sup>a</sup>	24	hours/day
Seedhouse Maximum Annual Hours of Operation	8760	hours/year

Barley Density	50	lb/bushel
Seed Density	52	lb/bushel

ELEVATOR	bushels/hour	Total tons/hour	Total tons/year
Grain Receiving	20,000	500	4,380,000.00
Grain Shipping	10,000	250	2,190,000.00

SEEDHOUSE	bushels/hour	tons/hour	tons/year
Seedhouse Throughput	2,000	52	455,520.00

	Throughput (tons/hour)	Emission Factors from AP-42, Table 9.9.1-1 (lb/ton grain)			Uncontrolled Emissions (lbs/hour)			Controlled Emissions (lbs/hour) <sup>b</sup>			Annual Emissions (tons/year)		
		PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
ELEVATOR													
Receiving - Unloading Pits - Straight Truck (SCC 3-02-005-05) <sup>c</sup>	500	0.18	0.059	0.010	90.00	29.50	5.00	0.23	0.17	0.05	1.02	0.76	0.22
Headhouse and Grain Handling [Includes cleaning] (SCC 3-02-005-30) <sup>d</sup>	1,000	0.061	0.034	0.0058	61.00	34.00	5.80	0.23	0.20	0.06	0.99	0.87	0.25
Storage Bins (SCC 3-02-005-04)	500	0.025	0.0063	0.0011	12.50	3.15	0.55	Uncontrolled			54.75	13.80	2.41
Loadout for Shipping - Truck (SCC 3-02-005-63) <sup>e</sup>	250	0.086	0.029	0.0049	21.50	7.25	1.23	0.06	0.04	0.01	0.25	0.19	0.05
Elevator Peak Hour Emissions Through Baghouses								0.52	0.41	0.12			
Elevator Peak Hour Emissions from Storage								12.50	3.15	0.55			
Elevator Peak Hour (lbs/hour)								13.02	3.56	0.67			
Elevator 24-Hour Average (lbs/hour)								13.02	3.56	0.67			
Elevator Maximum Annual (tons/year)								57.01	15.61	2.94			
SEEDHOUSE													
Unloading Pits - Straight Truck (SCC 3-02-005-05) <sup>c</sup>	52	0.18	0.059	0.010	9.36	3.07	0.52	0.02	0.02	0.005			
Storage Bins (SCC 3-02-005-04)	52	0.025	0.0063	0.0011	1.30	0.33	0.06	Uncontrolled					
Headhouse and Grain Handling [Includes cleaning] (SCC 3-02-005-30) <sup>d</sup>	104	0.061	0.034	0.0058	6.34	3.54	0.60	0.02	0.02	0.006			
Loadout for Shipping - Truck (SCC 3-02-005-63) <sup>e</sup>	52	0.086	0.029	0.0049	4.47	1.51	0.25	0.01	0.009	0.003			
Seedhouse Peak Hour Emissions Through Baghouses								0.06	0.05	0.01			
Seedhouse Peak Hour Emissions from Storage								1.30	0.33	0.06			
Seedhouse Peak Hour (lbs/hour)								1.36	0.38	0.07			
Seedhouse 24-Hour Average (lbs/hour)								1.36	0.38	0.07			
Seedhouse Maximum Annual (tons/year)								5.95	1.64	0.31			
Total Peak Hour Emissions Through Baghouses								0.58	0.46	0.13			
Total Peak Hour Emissions from Storage								13.80	3.48	0.61			
Total Peak Hour (lbs/hour)								14.38	3.94	0.74			
Total 24-Hour Average (lbs/hour)								14.38	3.94	0.74			
Total Maximum Annual (tons/year)								62.96	17.25	3.25			

<sup>a</sup>The elevator and seedhouse are often operated through the night during harvest.

<sup>b</sup>Emissions from the elevator and seedhouse are controlled by baghouses, with the exception of emissions from the storage bins and flat storage which are uncontrolled and emitted through passive vents.

<sup>c</sup>Grain is delivered by a variety of truck types and can be delivered by railcar. The emission factor for straight trucks is the highest and will be used for all deliveries.

<sup>d</sup>As indicated in AP-42, Table 9.9.1-1 includes "(legs, conveyors, belts, distributor, scale, enclosed cleaners, etc.)". Grain from elevator and the seedhouse are cleaned twice. To account for emissions from this additional cleaning the throughput have been doubled for this activity.

<sup>e</sup>Grain from the elevator is shipped primarily by railcar with a small amount shipped by truck. As truck shipping has the higher emission factor, emissions are conservatively calculated using the truck factor. Seed shipping is exclusively by truck.

**MillerCoors LLC Burley Elevator Current Potential Emissions**

Particle Size (microns)	Baghouse Control Efficiency
0 - 2.5	99.0%
2.5 - 10	99.5%
>10 <sup>1</sup>	99.9%

From AP-42, Table B.2-3, Fabric Filter Low Temperature

Assumed

The baghouse used to control emissions from the newest existing cleaning string is listed in Permit 0440-0021 as having an overall design control efficiency of 99.99%. As emissions from cleaning are contained within the "headhouse and grain handling" emission factor, and the new baghouse that will control the grain transfers is conservatively assumed to achieve a 99.9% control efficiency for particles 10 micrometers and larger during its operational life, a control efficiency for this size category of 99.9% is used.

Maximum Annual Operating Hours =  $\frac{\text{hours}}{\text{day}} \times \frac{365 \text{ days}}{\text{year}}$

Grain and Seed Received and Shipped  $\frac{\text{tons}}{\text{hour}} = \frac{\text{bushels}}{\text{hour}} \times \frac{\text{lb}}{\text{bushel}} \times \frac{\text{tons}}{2000 \text{ lb}}$

Throughput for Headhouse and Grain Handling  $\frac{\text{tons}}{\text{hour}} = \text{Total Throughput } \frac{\text{tons}}{\text{hour}} \times 2$

**Emissions**

Uncontrolled Emissions tons =  $\frac{\text{lb}}{\text{ton grain}} \times \frac{\text{tons grain}}{\text{hour}} \times \frac{\text{tons}}{2000 \text{ lbs}}$

**Controlled Emissions:**

PM Emissions  $\frac{\text{tons}}{\text{hour}} = [(\text{Uncontrolled PM Emissions } \frac{\text{tons}}{\text{hour}} - \text{Uncontrolled PM}_{10} \text{ Emissions } \frac{\text{tons}}{\text{hour}}) * (1 - \text{Control Efficiency PM}_{10})] + \text{Controlled PM}_{10} \text{ Emissions } \frac{\text{tons}}{\text{hour}}$

PM<sub>10</sub>  $\frac{\text{tons}}{\text{hour}} = [(\text{Uncontrolled PM}_{10} \text{ Emissions } \frac{\text{tons}}{\text{hour}} - \text{Uncontrolled PM}_{2.5} \text{ Emissions } \frac{\text{tons}}{\text{hour}}) * (1 - \text{Control Efficiency PM}_{2.5-10})] + \text{Controlled PM}_{2.5} \text{ Emissions } \frac{\text{tons}}{\text{hour}}$

PM<sub>2.5</sub>  $\frac{\text{tons}}{\text{hour}} = \text{Uncontrolled PM}_{2.5} \frac{\text{tons}}{\text{hour}} \times (1 - \text{PM}_{2.5} \text{ Control Efficiency})$

24-Hour Average Emissions  $\frac{\text{lb}}{\text{hour}} = \text{Peak Hour Emissions } \frac{\text{lb}}{\text{hour}} \times \frac{\text{Operating hours}}{24 \text{ hour period}}$

Annual Emissions  $\frac{\text{tons}}{\text{year}} = \text{Peak Hour Emissions } \frac{\text{lb}}{\text{hour}} \times \frac{\text{hours}}{\text{year}} \times \frac{\text{tons}}{2000 \text{ lbs}}$

## **APPENDIX B – FACILITY DRAFT COMMENTS**

## **The following comments were received from the facility on June 18, 2015:**

**Facility Comment:** Permit Tables 1.1 and 2.2 – No changes will be made to Pit #2 and its associated equipment, including the baghouse. There should therefore, but no modified date listed for Pit #2 in either table.

**DEQ Response:** The requested change will be made to the permit and the Statement of Basis.

**Facility Comment:** Permit Condition 2.3, Emissions Limits table – The lb/hr values listed in the table are 24-hour average values. A statement in the permit condition indicating the averaging period associated with the emission limits is requested.

**DEQ Response:** The requested change will be made to the permit.

**Facility Comment:** Permit Condition 2.9, Baghouse/Filter System Procedures – A daily see-no-see visible emissions inspections of the baghouses is required. The elevator is primarily a seasonal source and does not operate every day. It is requested that inspections be required only on days when any of the emitting equipment venting to a baghouse operates.

**DEQ Response:** The requested changes will be made to the permit.

**Facility Comment:** Permit Condition 2.9, Baghouse/Filter System Procedures – It is required that a Baghouse/Filter System Procedures document be submitted to DEQ within 60 days of permit issuance. The procedures manual will be based on operation and maintenance information provided by the baghouse manufacturer. This information may not be available in time to meet the current deadline. To ensure that manufacturer's information can be used to develop the Procedures document, it is requested that the submission deadline be changed to "at least 60 days prior to modification startup".

**DEQ Response:** The requested change will be made to the permit.

**Facility Comment:** Statement of Basis, Facility Information, Application Scope - In this section it is stated that the shipping capacity of barley will increase to 550 tons per hour. This statement reflects an error in the text of the application. The shipping capacity will increase to 500 tons per hour as reflected in the emission calculations.

**DEQ Response:** The requested change will be made to the Statement of Basis.

**Facility Comment:** Statement of Basis, Table 1 - There will be no changes to Pit #2 and associated equipment. As a result, no modification date should be listed for Pit #2.

**DEQ Response:** As discussed previously the requested change will be made to the Statement of Basis.

**Facility Comment:** Statement of Basis, Table 2 - The values listed for the Seedhouse appear to be controlled rather than uncontrolled values. The uncontrolled Seedhouse values are:

- $PM_{10}$  - 37.0 T/yr and  $PM_{2.5}$  - 6.3 T/yr.

These values increase the totals to:  $PM_{10}$  - 463.9 T/yr and  $PM_{2.5}$  - 78.9 T/yr.

To reflect the change to the Seedhouse values in Table 2, the Uncontrolled PTE (T/yr) in Table 6 should be:

- $PM_{10}$  463.9 T/yr and  $PM_{2.5}$  78.9 T/yr.

**DEQ Response:** The requested changes will be made to the Statement of Basis.

**Facility Comment:** Statement of Basis, Tables 3 and 5 - The value for Grain Loadout for Shipping,  $PM_{2.5}$  lb/hr should be 0.1 lb/hr rather than 0.3 lb/hr. This changes the  $PM_{2.5}$  lb/hr total to 0.74 lb/hr. DEQ Staff Note: There is a typographical error in this request. The table value was 0.03 lb/hr and should be corrected to 0.01 lb/hr.

To reflect the change in Grain Loadout for Shipping value in Table 3, the Pre-Project Potential to Emit,  $PM_{2.5}$  lb/hr in Table 5 should be 0.74 lb/hr.

With this revision, Changes in Potential to Emit,  $PM_{2.5}$  lb/hr becomes 0.02 lb/hr.

**DEQ Response:** The requested changes will be made to the Statement of Basis.

## **APPENDIX C – PROCESSING FEE**



## PTC Fee Calculation

**Instructions:**

Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: MillerCoors LLC  
 Address: 5 North 400 West  
 City: Burley  
 State: ID  
 Zip Code: 83318  
 Facility Contact: Jason Boose  
 Title: Facility permitting contact  
 AIRS No.: 031-00021

**N** Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N

**Y** Did this permit require engineering analysis? Y/N

**N** Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO <sub>x</sub>	0.0	0	0.0
SO <sub>2</sub>	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.7	0	0.7
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	0.7
Fee Due	\$ 1,000.00		

Comments: