

## Application Addendum

### Summary of Permitting Actions Since the 2007 Tier I Application:

- Issuance of P-2015.0060 on January 9, 2017. This PTC restricted the No. 1 and No. 2 B&W Boilers to utilize only natural gas and eliminate coal as a fuel source. The PTC also addressed historical modifications and the required compliance review of historical equipment changes as required by the compliance schedule, Permit Conditions 14.12 - 14.19 of Tier I Operating Permit T1-050020.
- Issuance of T2-2009.0105 on September 7, 2010. This was the initial BART permit under the Regional Haze Rule. The BART permit was renewed and issued again on March 9, 2017. This permit included the 2007 shutdown of three coal-fired pulp dryers and the retrofit of coal-fired low NO<sub>x</sub> burner systems (LNB) on the Riley boiler unless firing on natural gas.
- Issuance of P-2018.0011 on May 24, 2018. This PTC was the conversion of the facility's expired Tier II operating permit. The emission inventory from P-2015.0060 issued January 9, 2017 was used. Substantial changes include:
  - Removal of the ambient monitoring requirements
  - Removal of the rotary drum pulp dryers
  - Removal of subsequent performance tests for the process slakers as the initial tests were substantially below emission limits
  - Specific throughput limits were included for the B&W, Riley, and Union boilers based on source testing conducted on 1/13/04.
  - Pellet cooler No. 6 was added to the permit and the pellet mill cooler annual emission limit was adjusted to accurately reflect source testing conducted after the 2002 permit issuance. Specific throughput limits were included based on source testing conducted on 12/3/03.
  - The Lime Kilns emission limits were adjusted to accurately reflect source testing conducted after the 2002 permit issuance.
  - Specific throughput limits were included for the process slakers based on source testing conducted on 12/24/06.
  - Permit conditions for the Drying Granulator, Cooling Granulators, and the Sugar Handling System were removed as these sources are considered inherent process equipment and have potential emissions less than or equal to the significant emission rate (as defined in IDAPA 58.01.01.006), and actual emissions less than or equal to 10% of the significant emission rate and no more than one ton per year of any HAP. These emission sources are identified in the Insignificant Emissions Units Based on Size or Production Rate section of the Tier I operating permit, in accordance with IDAPA 58.01.01.317.01.b.i.30.
  - The lime kiln material handling emission limits were adjusted to accurately reflect the source testing that was completed after the 2002 Tier II permit issuance.

**SUMMARY OF FACILITY-WIDE PROJECTED EMISSIONS**  
**Nampa Facility**

Emissions Unit	PM <sup>a</sup>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources									
B&W Boiler No. 1	12.0	0.3	154.5	46	3	67146	1.3	0.13	67126
B&W Boiler No. 2	12.0	0.3	154.5	46	3	67146	1.3	0.13	67216
Riley Boiler	51.3	1600	611.6	129.9	8.7	273762	28.6	4.1	275726
Union Boiler	6.8	0.2	31.5	28.9	1.7	38369	0.74	0.074	38410
South Pulp Dryer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Center Pulp Dryer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Pulp Dryer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pellet Cooler Baghouse	3.5								
Lime Kiln A	1.5	0.56	10.52	928.7	0.74	7858	0.88	0.13	7918
Lime Kiln B	1.75	0.65	12.22	1078.2	0.86	9093	1.0	0.15	9163
Lime Kiln Material Handling	3.45								
A & B Process Slakers	6.10								
Drying Granulator	5.00								
#1 Cooling Granulator	1.30								
#2 Cooling Granulator	1.30								
Sugar Handling(Process)	1.20								
Sugar Handling(Specialties)	0.60								
Sugar Handling(Packaging Line)	0.90								
Main Mill					59.2				
Sulfur Stoves		14.2							
Fugitives									
Coal Unloading Railcar @Dryer	0								
Pulp&PelletStorage and Loadout	0.0147								
Coal Unloading (Railcar)	0.0031								
Coal Storage/Loading	1.79								
Beet Hauling	1.21								
Vehicle Traffic Unpaved Roads	0.49								
Lime Rock Handling	0.68								
Coke Handling	0.2								
<b>Totals</b>	<b>113.1</b>	<b>1616.2</b>	<b>974.84</b>	<b>2257.7</b>	<b>77.2</b>	<b>463374</b>	<b>33.82</b>	<b>4.714</b>	<b>465559</b>

Projected HAPs  
Emissions Summary  
Nampa Facility

HAP Pollutants	PTE (t/y)
Acetaldehyde	2.50
Acrolein	0.07
Formaldehyde	0.16
Methanol	46.63
Arsenic	0.03
Benzene	0.07
Beryllium	0.00
Cadmium	0.05
Chromium	0.02
Cyanide	0.19
Hydrochloric Acid	1.01
Hydrogen Fluoride	3.80
Lead	0.03
Manganese	0.04
Mercury	0.00
Nickel	0.02
Selenium	0.10
Toluene	0.02
Xylenes	0.00
PAH and other HAPs	0.20
<b>Total</b>	<b>54.96</b>

# HAP Projected Emissions Nampa Facility

11/13/2015

## Individual Emissions - Projected

Hazardous Air Pollutant (HAP)	B & W Boiler		Riley Boiler		Union	Coal Fired Pulp	Kilns	Main Mill	Constituent Totals (tons / year)
	Coal (tons / year)	Nat. Gas (tons / year)	Coal (tons / year)	Nat. Gas (tons / year)	Nat. Gas (tons / year)	Dryers (tons / year)	(tons / year)	(tons / year)	
Acetaldehyde	0.00	0.00	0.03	0.00	0.00	0.00	0.00	2.47	2.50
Acrolein	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.06	0.07
Formaldehyde	0.00	0.0863	0.0129	1.59E-02	2.46E-02	0.00	0.00	0.02	0.16
Methanol								46.63	46.63
Arsenic	0.00	0.00	0.02	0.00	6.57E-05	0.00	8.5E-03		0.03
Benzene	0.00	0.00	0.07	0.00	6.90E-04	0.00	0.00		0.07
Beryllium	0.00	0.00	0.00	0.00	3.94E-06	0.00	4.4E-04		0.00
Cadmium	0.00	0.00	0.00	0.00	3.61E-04	0.00	4.3E-02		0.05
Chromium	0.00	0.00	0.01	0.00	4.60E-04	0.00	5.4E-03		0.02
Cyanide	0.00		0.13			0.00	5.2E-02		0.19
Hydrochloric Acid	0.00		1.01			0.00	0.00		1.01
Hydrogen Fluoride	0.00		3.80			0.00	0.00		3.80
Lead	0.00	0.00	0.02	0.00	1.64E-04	0.00	8.7E-03		0.03
Manganese	0.00	0.00	0.03	0.00	1.25E-04	0.00	1.0E-02		0.04
Mercury	0.00	0.00	0.00	0.00	8.54E-05	0.00	1.0E-03		0.0035
Nickel	0.00	0.00	0.02	0.00	6.90E-04	0.00	5.8E-03		0.02
Selenium	0.00	0.00	0.07	0.00	7.88E-06	0.00	2.7E-02		0.10
Toluene	0.00	0.00	0.01	0.00	1.12E-03	0.00	0.00		0.02
Xylenes	0.00		0.00			0.00	0.00		0.00
PAH and other HAPs	0.00	0.00	0.20	0.00	2.90E-05	0.00	0.00		0.20
	0.00	0.10	5.46	0.02	0.03	0.00	0.16	49.18	
								<b>Grand Total</b>	<b>54.96</b>

1. PAH and Other HAP emission factors are listed in the Fuel E\_Factors sheet and include the following

2,4-Dinitrotoluene, 2-Chloroacetophenone, Acetophenone, Antimony Compounds, Benzyl chloride, Bis(2-ethylhexyl)phthalate (DEHP), Bromoform, Carbon disulfide, Chlorobenzene, Chloroform, Cobalt Compounds, Cumene, Dimethyl sulfate, Ethyl benzene, Ethyl chloride (Chloroethane), Ethylene dibromide (Dibromoethane), Ethylene dichloride (1,2-Dichloroethane), Hexane, Isophorone, Methyl bromide (Bromomethane), Methyl chloride (Chloromethane), Methyl chloroform (1,1,1-Trichloroethane), Methyl hydrazine, Methyl Methacrylate, Methyl tert butyl ether, Methylene chloride (Dichloromethane), Phenol, Propionaldehyde, Styrene, Tetrachloroethylene