Statement of Basis
Concrete Batch Plant General Permit

Permit to Construct No. P-2018.0019
Project ID 62013

Wood's Crushing & Hauling Inc.
Sandpoint, Idaho

Facility ID 017-00073

Final

April 26, 2018
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Permit Writer

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.

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
Btu	British thermal units
CAA	Clean Air Act
CAS No.	Chemical Abstracts Service registry number
CBP	concrete batch plant
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
hr/yr	hours per consecutive 12 calendar month period
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometers
lb/hr	pounds per hour
LPG	Liquefied petroleum gas
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_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
O_2	oxygen
PC	permit condition
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
PW	process weight rate
Rules	*Rules for the Control of Air Pollution in Idaho*

scf	standard cubic feet
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO_2	sulfur dioxide
SO_X	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
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd^3	cubic yards
$\mu g/m^3$	micrograms per cubic meter

FACILITY INFORMATION

Description

Wood's Crushing & Hauling, Inc. has proposed a new stationary truck mix concrete batch plant consisting of aggregate stockpiles, a cement storage silo, a cement supplement (fly ash) storage silo, a weigh batcher, and conveyors. The facility combines aggregate, sand, fly ash, and cement and then transfers the mixture into a truck mixer, along with water, for in-transit mixing of the concrete. In addition, a water heater is used to heat the water in cold weather prior to use for the mixing of concrete.

The concrete batch plant will be fed a mixture of aggregates from imported aggregate.

The process begins with materials being fed via front end loader to a compartment bin feeder system and then dispensed in metered proportions to a collecting conveyor. The material will pass over a scalping screen before being conveyed into the truck mixer.

Particulate emissions will be controlled by maintaining the moisture content at 1.5% by weight for all ¼ in and smaller aggregate feed materials via water sprays.

The Applicant has proposed concrete production rate throughput limits of 140 cubic yards per hour, 1,000 cubic yards per day, and 50,000 cubic yards per year.

The Applicant has proposed that line power will be used exclusively at the facility. Therefore, no IC engines powering electrical generators were included in the application.

Permitting History

This is the initial PTC for a new facility thus there is no permitting history.

Application Scope

This is the initial PTC for a new facility.

Application Chronology

February 15, 2018	DEQ received an application.
February 16, 2018	DEQ received the processing fee.
February 22, 2018	DEQ determined that the application was complete.
February 27 – March 14, 2018	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
March 6, 2018	DEQ made available the draft permit and statement of basis for peer and regional office review.
March 21 – April 20, 2018	DEQ provided a public comment period on the proposed action.
April 26, 2018	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.
Materials Handling	Material Transfer Points: Materials handling Concrete aggregate transfers Truck unloading of aggregate Aggregate conveyor transfers Aggregate handling	Maintaining the moisture content in ¼" or smaller aggregate material at 1.5% by weight, using water sprays, using shrouds, or other emissions controls	N/A
Concrete Mixer	Concrete Batch Plant – Truck Mix: Manufacturer: Con-E-Co Model: LP 250 Manufacture Date: 2017 Max. production: 140 yd^3/hr, 1000 yd^3/day, and 50,000 yd^3/yr Cement Storage Silo: Bin Vent Filter/Baghouse Manufacturer[a]: Con-E-Co Model: PJC-300S Manufacture Date: 2017 Fly Ash Storage Silo: Bin Vent Filter/Baghouse Manufacturer[a]: Con-E-Co Model: PJC-300S Manufacture Date: 2017	Weigh Batcher Baghouse: Manufacturer: Con-E-Co Model: BV-14 $PM_{10}/PM_{2.5}$ control efficiency: 99.9% Cement Storage Silo Bin Vent Filter/Baghouse: Manufacturer: Con-E-Co Model: PJC-300S $PM_{10}/PM_{2.5}$ control efficiency: 99.9% Fly Ash Storage Silo Bin Vent Filter/Baghouse: Manufacturer: Con-E-Co Model: PJC-300S $PM_{10}/PM_{2.5}$ control efficiency: 99.9% Truck Load-out : Control: Baghouse $PM_{10}/PM_{2.5}$ control efficiency: 99.9% Material Transfer Points: Control: Water sprays $PM_{10}/PM_{2.5}$ control efficiency: 75%	Weigh Batcher Baghouse Exhaust: Exit height: 20 ft (6.1 m) Exit Area: 2.6 ft^2 (0.14 m^2) Exit flow rate: 180 acfm Exit temperature: Ambient Cement Storage Silo Bin Vent Filter/Baghouse Exhaust: Exit height: 42 ft (12.8 m) Exit Area: 10 ft^2 (0.74 m^2) Exit flow rate: 1818 acfm Exit temperature: Ambient Fly Ash Storage Silo Bin Vent Filter/Baghouse Exhaust: Exit height: 42 ft (12.8 m) Exit Area: 10 ft^2 (0.74 m^2) Exit flow rate: 1818 acfm Exit temperature: Ambient Truck Load-out Baghouse Exhaust: Exit height: 40 ft (12.2 m) Exit Area: 2.6 ft^2 (0.24 m^2) Exit flow rate: 1,500 acfm Exit temperature: Ambient
Boiler	Manufacturer: Sioux Model: D-2000 Manufacture Date: 2017 Heat input rating: 2.0 MMBtu/hr Fuel: LPG	N/A	Boiler Exhaust: Exit height: 24 ft (7.3 m) Exit diameter: 2 ft (0.61 m) Exit flow rate: 1,415 acfm Exit temperature: 275 °F (135 °C)

a. Both the storage silo baghouse and supplement storage silo flyash baghouse are considered process equipment and therefore there is no associated control efficiency. Controlled PM_{10} emission factors were used when determining PTE and for modeling purposes.

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 concrete batch plant operations at the facility associated with this proposed project using the DEQ developed CBP EI spreadsheet (see Appendix A). Emissions estimates of criteria pollutant PTE were based on the following assumptions:

- Maximum concrete throughput does not exceed 140 yd^3/hour, 1,000 yd^3/day, and 50,000 yd^3/year (per the Applicant).
- Baghouse/cartridge filter control efficiencies were assumed to be 99.0%.
- Fugitive emissions of particulate matter (PM), PM_{10}, and $PM_{2.5}$ from the concrete batch plant material transfer points were assumed to be controlled by manual water sprays, sprinklers, or spray bars, or an equivalent method that reduce PM emissions by an estimated 75%. The assumed 75% control efficiency is based on the Western Regional Air Partnership Fugitive Dust Handbook. According to the Handbook, water suppressant of material handling can range from 50-90% control. Assuming the average of 70% and including another 5% due to Best Management Practices required by the permit allow for 75% control to be a conservative estimate.
- Aggregate is washed before delivery to the concrete batch plant site, and water is used on-site to control the temperature of the aggregate. Particulate matter and PM_{10} emissions from the weigh batcher transfer point and truck mix load-out emissions are controlled by a baghouse/cartridge filter. Capture efficiency of the truck mix load-out and weigh batcher baghouses or equivalents were estimated at 99%.
- Controlled emissions of particulate toxic air pollutants (TAPs) were estimated based on the presence of bin vent filters/baghouse controlling emissions from the cement/cement supplement silos, a baghouse controlling emissions from the weigh batcher, and 99% control for truck load-out emissions. Hexavalent chromium content was estimated at 20% of total chromium for cement, and 30% of total chromium for the cement supplement/fly ash. The hexavalent chromium percentages were taken from a University of North Dakota study, by the Energy and Environmental Research Center, Center for Air Toxic Metals. Detailed emissions calculations can be found in Appendix A of this document.
- Determining emissions from a concrete batch plant also includes transfer emissions from the number of drop points throughout the process. The PM_{10} emissions from truck-mix loading operations are defined by an equation which includes the wind speed at each drop point and the moisture content of cement and cement supplement and a number of exponents and constants defined by AP-42 Equation 11.12-1 (6/06). An average value of wind speed and moisture content are 7 mph, 4.17%, and 1.77%, respectively[1]. The following equation of particulate emissions is specific to PM_{10}. The resulting emissions were used to determine a factor to help evaluate wind speed variations in AERMOD modeling.

[1] 7 mph was the average wind speed obtained from an average of 19 Idaho airports throughout the state from 1996-2006. This data is from the Western Regional Climate Center (http://www.wrcc.dri.edu/htmlfiles/westwind.final.html#IDAHO). 4.17 % and 1.77% were the average percentages for sand and aggregate respectively. These values are based on EPA tests conducted at Cheney Enterprises. The percentages used in AP-42 are typical for most concrete batching operations.

$$E = k(0.0032) * \left[\frac{U^a}{M^b} \right] + c$$

Where:
k = particle size multiplier
a = exponent
b = exponent
c = constant
U = mean wind speed
M = moisture content

- The second transfer emissions calculations were used to determine conveyor emissions. For both coarse and fine aggregate to a conveyor. It was assumed that 82%, which for this facility is 115 yd^3/hr (0.82 x 140 yd^3/hr), of the concrete produced was aggregate. This percentage was based on 1,865 lb coarse aggregate, 1,428 lb sand, 564 lb cement/supplement and 167 lb water for a total of 4,024 lb concrete as defined by AP-42 Table 11.12-5 (06/06). The fine and coarse aggregate contributions were separated into 36% and 46% of the total concrete production[2]. Employing emission factors from AP-42 Table 11.12-5 (6/06) for conveyor transfer and assuming 75% control efficiency as stated earlier for conveyor transfer PM_{10} emissions were calculated for each transfer point. For both fine and coarse aggregate the facility has 2 transfer points.
- Any emissions unit outside a 1,000 ft radius from the concrete batch plant was not included in the emissions modeling analysis for this 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 from all emissions units at the facility as determined by DEQ staff using the DEQ Concrete Batch Plant EI spreadsheet. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For this operation uncontrolled Potential to Emit is calculated with 0% control efficiency for the Concrete Batch Plant itself.

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$	SO_2	NO_X	CO	VOC
	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources					
Concrete batch plant[(a)]	0.11	N/A	N/A	N/A	N/A
Boiler	0.07	0.005	0.86	0.72	0.47
Materials handling	0.06	N/A	N/A	N/A	N/A
Total, Point Sources	**0.24**	**0.01**	**0.86**	**0.72**	**0.47**

a) Some $PM_{10}/PM_{2.5}$ emissions from the concrete batch plant are considered "fugitive emissions" and therefore are not included in the Potential to Emit.

[2] The percentages of coarse and fine aggregate are based on the AP-42 concrete composition. One cubic yard of concrete as defined by AP-42 is 4024 total pounds. Similarly, coarse aggregate is 1865 pounds or 46% of the total and sand (fine) aggregate is 1428 pounds or 36%.

The following table presents the uncontrolled Potential to Emit for HAP pollutants from all emissions units at the facility as determined by DEQ staff using the DEQ Concrete Batch Plant EI spreadsheet. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For this operation uncontrolled Potential to Emit is calculated with 0% control efficiency for the Concrete Batch Plant itself.

Table 3 UNCONTROLLED POTENTIAL TO EMIT FOR HAZARDOUS AIR POLLUTANTS

IDAPA Listing	Hazardous Air Pollutants	PTE (T/yr)
585	Acrolein	0.00E+00
	Chromium metal (II and III)	8.11E-06
	Cobalt metal dust, and fume	3.61E-07
	Ethyl benzene	0.00E+00
	Hexane	7.73E-03
	Manganese as Mn (fume)	6.90E-06
	Mercury (alkyl compounds as Hg)	1.12E-06
	Methyl chloroform	0.00E+00
	Naphthalene	1.91E-03
	Phosphorous	5.94E-06
	Propionaldehyde	0.00E+00
	Quinone	0.00E+00
	Selenium	3.54E-07
	Toluene	1.46E-05
	Xylene	0.00E+00
586	Acetaldehyde	0.00E+00
	Arsenic	2.19E-06
	Benzene	4.12E-06
	Benzo(a)pyrene	2.35E-09
	Beryllium and compounds	1.26E-07
	1,3-Butadiene	0.00E+00
	Cadmium and compounds	3.60E-06
	Chromium (VI)	5.41E-07
	Formaldehyde	1.47E-04
	3-Methylcholanthrene	3.53E-09
	Nickel	7.29E-06
Not listed	Acenaphthene	3.53E-09
	Acenaphthylene	3.53E-09
	Anthracene	4.71E-09
	Benzo(b)fluoranthene	3.53E-09
	Benzo(k)fluoranthene	3.53E-09
	Benzo(e)pyrene	0.00E+00
	Benzo(g,h,i)perylene	2.35E-09
	Chrysene	3.53E-09
	Dibenzo(a,h)anthracene	2.35E-09
	Isooctane	0.00E+00
	Total	**0.01**

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.

This is a new facility. Therefore, pre-project emissions are set to zero for all criteria pollutants.

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 and GHG pollutants from all emissions units at the facility as determined by DEQ staff using the DEQ Concrete Batch Plant EI spreadsheet. 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	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]
Concrete batch plant	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA
Boiler	0.015	0.065	1.18E-03	5.15E-03	1.96E-01	0.859	1.65E-01	0.721	1.08E-02	4.72E-02
Materials handling	0.014	0.06	NA	NA	NA	NA	NA	NA	NA	NA
Post Project Totals	**0.08**	**0.14**	**0.00**	**0.01**	**0.20**	**0.86**	**0.17**	**0.72**	**0.01**	**0.05**

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	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Pre-Project Potential to Emit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Post Project Potential to Emit	0.08	0.14	0.00	0.01	0.20	0.86	0.17	0.72	0.01	0.05
Changes in Potential to Emit	**0.08**	**0.14**	**0.00**	**0.01**	**0.20**	**0.86**	**0.17**	**0.72**	**0.01**	**0.05**

Non-Carcinogenic TAP Emissions

Pre- and post-project, as well as the change in, non-carcinogenic TAP emissions are presented in the following table:

Table 6 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR NON-CARCINOGENIC TOXIC AIR POLLUTANTS[a]

Non-Carcinogenic Toxic Air Pollutants	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Acrolein	0.0	0.00E+00	0.00E+00	**0.017**	No
Barium	0.0	4.31E-06	4.31E-06	**2**	No
Chromium metal (II and III)	0.0	1.55E-05	1.55E-05	**0.033**	No
Cobalt metal dust, and fume	0.0	8.24E-08	8.24E-08	**0.0033**	No
Copper (fume)	0.0	8.33E-07	8.33E-07	**0.013**	No
Ethyl benzene	0.0	0.00E+00	0.00E+00	**29**	No
Hexane	0.0	1.76E-03	1.76E-03	**12**	No
Manganese as Mn (fume)	0.0	1.14E-05	1.14E-05	**0.067**	No
Mercury (alkyl compounds as Hg)	0.0	2.55E-07	2.55E-07	**0.001**	No
Methyl chloroform	0.0	0.00E+00	0.00E+00	**127**	No
Methyl ethyl ketone (MEK)	0.0	0.00E+00	0.00E+00	**39.3**	No
Molybdenum (soluble)	0.0	1.08E-06	1.08E-06	**0.333**	No
Naphthalene (24-hour)	0.0	4.37E-04	4.37E-04	**3.33**	No
Pentane	0.0	1.57E-03	1.57E-03	**118**	No
Phosphorous	0.0	4.07E-05	4.07E-05	**0.007**	No
Propionaldehyde	0.0	0.00E+00	0.00E+00	**0.0287**	No
Quinone	0.0	0.00E+00	0.00E+00	**0.027**	No
Selenium	0.0	4.41E-07	4.41E-07	**0.013**	No
Toluene	0.0	3.33E-06	3.33E-06	**25**	No
Vanadium as V_2O_5, (respirable dust and fume)	0.0	2.25E-06	2.25E-06	**0.003**	No
Xylene	0.0	0.00E+00	0.00E+00	**29**	No
Zinc metal	0.0	2.84E-05	2.84E-05	**0.667**	No

a) TAPs for the boiler were estimated as worst case by using natural gas AP-42 factors, as there are no AP-42 factors for propane.

None of the PTEs for non-carcinogenic TAP were exceeded as a result of this project. Therefore, modeling is not required for any non-carcinogenic TAP because none of the 24-hour average carcinogenic screening ELs identified in IDAPA 58.01.01.585 were exceeded.

Carcinogenic TAP Emissions

Pre- and post-project, as well as the change in, carcinogenic TAP emissions are presented in the following table:

Table 7 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR CARCINOGENIC TOXIC AIR POLLUTANTS[a]

Carcinogenic Toxic Air Pollutants	Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Change in Annual Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Acetaldehyde	0.00E-03	0.00E+00	0.00E+00	3.0E-03	No
Arsenic	**0.00E-03**	**8.03E-07**	**8.03E-07**	**1.5E-06**	**No**
Benzene	0.00E-03	4.12E-06	4.12E-06	8.0E-04	No
Benzo(a)pyrene	0.00E-03	2.35E-09	2.35E-09	2.0E-06	No
Beryllium and compounds	0.00E-03	4.70E-08	4.70E-08	2.8E-05	No
1,3-Butadiene	0.00E-03	0.00E+00	0.00E+00	2.4E-05	No
Cadmium and compounds	0.00E-03	2.49E-06	2.49E-06	3.7E-06	No
Chromium (VI)	**0.00E-03**	**1.23E-07**	**1.23E-07**	**5.6E-07**	**No**
Formaldehyde	0.00E-03	1.47E-04	1.47E-04	5.1E-04	No
3-Methylcholanthrene	0.00E-03	3.53E-09	3.53E-09	2.5E-06	No
Nickel	0.00E-03	4.84E-06	4.84E-06	2.7E-05	No
PAHs Total	0.00E-03	2.24E-08	2.24E-08	2.0E-06	No
POM Total	0.00E-03	2.24E-08	2.24E-08	2.0E-06	No
Non-Listed (in 586) PAHs[b]					
2-Methylnaphthalene	0.00E-03	4.71E-08	4.71E-08	9.10E-05	No
Acenaphthene	0.00E-03	3.53E-09	3.53E-09	9.10E-05	No
Acenaphthylene	0.00E-03	3.53E-09	3.53E-09	9.10E-05	No
Anthracene	0.00E-03	4.71E-09	4.71E-09	9.10E-05	No
Benzo(g,h,i)perylene	0.00E-03	2.35E-09	2.35E-09	9.10E-05	No
Dichlorobenzene	0.00E-03	2.35E-06	2.35E-06	9.10E-05	No
Fluoranthene	0.00E-03	5.88E-09	5.88E-09	9.10E-05	No
Fluorene	0.00E-03	5.49E-09	5.49E-09	9.10E-05	No
Naphthalene (Annual)	0.00E-03	1.20E-06	1.20E-06	9.10E-05	No
Phenanathrene	0.00E-03	3.33E-08	3.33E-08	9.10E-05	No
Pyrene	0.00E-03	9.80E-09	9.80E-09	9.10E-05	No

a) TAPs for the boiler were estimated as worst case by using natural gas AP-42 factors, as there are no AP-42 factors for propane.
b) Polycyclic Organic Matter (POM) is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

None of the PTEs for carcinogenic TAP were exceeded as a result of this project. Therefore, modeling is not required for any carcinogenic TAP because none of the annual average carcinogenic screening ELs identified in IDAPA 58.01.01.586 were exceeded.

Post Project HAP Emissions

The following table presents the post project potential to emit for HAP 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 8 HAZARDOUS AIR POLLUTANTS EMISSIONS POTENTIAL TO EMIT SUMMARY

IDAPA Listing	Hazardous Air Pollutants	PTE (T/yr)
585	Acrolein	0.00E+00
	Chromium metal (II and III)	8.11E-06
	Cobalt metal dust, and fume	3.61E-07
	Ethyl benzene	0.00E+00
	Hexane	7.73E-03
	Manganese as Mn (fume)	6.90E-06
	Mercury (alkyl compounds as Hg)	1.12E-06
	Methyl chloroform	0.00E+00
	Naphthalene	1.91E-03
	Phosphorous	5.94E-06
	Propionaldehyde	0.00E+00
	Quinone	0.00E+00
	Selenium	3.54E-07
	Toluene	1.46E-05
	Xylene	0.00E+00
586	Acetaldehyde	0.00E+00
	Arsenic	2.19E-06
	Benzene	4.12E-06
	Benzo(a)pyrene	2.35E-09
	Beryllium and compounds	1.26E-07
	1,3-Butadiene	0.00E+00
	Cadmium and compounds	3.60E-06
	Chromium (VI)	5.41E-07
	Formaldehyde	1.47E-04
	3-Methylcholanthrene	3.53E-09
	Nickel	7.29E-06
Not listed	Acenaphthene	3.53E-09
	Acenaphthylene	3.53E-09
	Anthracene	4.71E-09
	Benzo(b)fluoranthene	3.53E-09
	Benzo(k)fluoranthene	3.53E-09
	Benzo(e)pyrene	0.00E+00
	Benzo(g,h,i)perylene	2.35E-09
	Chrysene	3.53E-09
	Dibenzo(a,h)anthracene	2.35E-09
	Isooctane	0.00E+00
	Total	**0.01**

The estimated PTE for all federally listed HAPs combined is below 25 T/yr and no PTE for a federally listed HAP exceeds 10 T/yr. Therefore, this facility is not a Major Source for HAPs.

Ambient Air Quality Impact Analyses

As presented in the emissions inventory in Appendix A, the estimated emission rates of PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, VOC, HAP, and TAP from this project were below applicable screening emission levels (EL) and published DEQ modeling thresholds established in IDAPA 58.01.01.585-586 and in the State of Idaho Air Quality Modeling Guideline[3]. Refer to the Emissions Inventories section for additional information concerning the emission inventories.

The applicant has demonstrated pre-construction compliance to DEQ's satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The applicant has also demonstrated pre-construction compliance to DEQ's satisfaction that the emissions increase due to this permitting action will not exceed any screening emission levels (EL) for toxic air pollutants (TAP). A summary of the TAP Analysis is provided in Appendix A.

As a result of the emissions inventory analysis, as well as information submitted by the Applicant for specific operating scenarios, the following conditions (along with corresponding monitoring and record keeping requirements) were placed in the permit:

- The Emissions Limits permit condition 3.3.
- The Concrete Production Limits permit condition 3.5.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Bonner County, which is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification

The AIRS/AFS facility classification codes are as follows:

For HAPs (Hazardous Air Pollutants) Only:

A = Use when any one HAP has actual or potential emissions $\geq$ 10 T/yr or if the aggregate of all HAPS (Total HAPs) has actual or potential emissions $\geq$ 25 T/yr.

SM80 = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the permit sets limits $\geq$ 8 T/yr of a single HAP or $\geq$ 20 T/yr of THAP.

SM = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the potential HAP emissions are limited to < 8 T/yr of a single HAP and/or < 20 T/yr of THAP.

B = Use when the potential to emit without permit restrictions is below the 10 and 25 T/yr major source threshold

UNK = Class is unknown

For All Other Pollutants:

A = Actual or potential emissions of a pollutant are $\geq$ 100 T/yr.

SM80 = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the

[3] Criteria pollutant thresholds in Table 1, State of Idaho Air Quality Modeling Guideline, Doc ID AQ-011, rev. 1, December 31, 2002.

pollutant are ≥ 80 T/yr.

SM = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the pollutant are < 80 T/yr.

B = Actual and potential emissions are < 100 T/yr without permit restrictions.

UNK = Class is unknown.

Table 9 REGULATED AIR POLLUTANT FACILITY CLASSIFICATION

Pollutant	Uncontrolled PTE (T/yr)	Permitted PTE (T/yr)	Major Source Thresholds (T/yr)	AIRS/AFS Classification
PM	0.24	0.14	**100**	B
PM_{10}	0.24	0.14	**100**	B
$PM_{2.5}$	0.24	0.14	**100**	B
SO_2	0.0	0.0	**100**	B
NO_X	0.86	0.86	**100**	B
CO	0.71	0.72	**100**	B
VOC	0.47	0.47	**100**	B
HAP (single)	<10	<10	**10**	B
HAP (Total)	0.01	0.01	**25**	B
Pb (Total)	<100	<100	**100**	B

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 proposed new 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 58.01.01.624 Visible Emissions

The sources of PM_{10} emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Conditions 3.4 and 4.4.

Fugitive Emissions (IDAPA 58.01.01.650)

IDAPA 58.01.01.650 Rules for the Control of Fugitive Emissions

The sources of fugitive emissions at this facility are subject to the State of Idaho fugitive emissions standards. These requirements are assured by Permit Conditions 2.1, 2.2, and 2.4.

Particulate Matter – New Equipment Process Weight Limitations (IDAPA 58.01.01.701)

IDAPA 58.01.01.701 Particulate Matter – New Equipment 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.

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 is < 9,250 lb/hr; $E = 0.045 (PW)^{0.60}$

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

As discussed previously in the Emissions Inventory Section, concrete has a density of 4,024 lb per cubic yard. Thus, for the new Concrete Batch Plant proposed to be installed as a result of this project with a proposed throughput of 140 y^3/hr, E is calculated as follows:

Proposed throughput = 4,024 lb per cubic yard x 140 y^3/hr = 563,360 lb/hr

Therefore, E is calculated as:

$E = 1.10 \times PW^{0.25} = 1.10 \times (563{,}360)^{0.25} = 30.13$ lb-PM/hr

As presented previously in the Emissions Inventories Section of this evaluation the post project PTE for this emissions unit is 0.13 lb-PM_{10}/hr. Assuming PM is 50% PM_{10} means that PM emissions will be 0.26 lb-PM/hr (0.13 lb-PM_{10}/hr ÷ 0.5 lb-PM_{10}/lb-PM). Therefore, compliance with this requirement has been demonstrated.

Rules for Control of Odors (IDAPA 58.01.01.775)

IDAPA 58.01.01.775 Rules for Control of Odors

Section 776.01 states that no person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids into the atmosphere in such quantities as to cause air pollution. These requirements are assured by Permit Conditions 2.3 and 2.5.

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

IDAPA 58.01.01.301 Requirement 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 all criteria pollutants or 10 tons per year for any one HAP or 25 tons per year for all HAP combined 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 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)

The facility is not subject to any NSPS requirements 40 CFR Part 60.

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 requirements 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 condition 1.1 establishes the permit to construct scope.

Permit condition, Table 1.1, provides a description of the purpose of the permit and the regulated sources, the process, and the control devices used at the facility.

FACILITY-WIDE CONDITIONS

As discussed previously, permit condition 2.1 establishes that the permittee shall take all reasonable precautions to prevent fugitive particulate matter (PM) from becoming airborne and provides examples of the controls in accordance with IDAPA 58.01.01.650-651.

As discussed previously, permit condition 2.2 establishes that the concrete batch plant shall employ efficient fugitive dust controls and provides examples of the controls in accordance with IDAPA 58.01.01.808.01 and 808.02.

As discussed previously, permit condition 2.3 establishes that there are to be no emissions of odorous gases, liquids, or solids from the permit equipment into the atmosphere in such quantities that cause air pollution.

As discussed previously, permit condition 2.4 establishes that the permittee shall monitor fugitive dust emissions on a daily basis to demonstrate compliance with the facility-wide permit requirements.

As discussed previously, permit condition 2.5 establishes that the permittee monitor and record odor complaints to demonstrate compliance with the facility-wide permit requirements.

Permit Condition 2.6 establishes that the permittee shall maintain records as required by the Recordkeeping General Provision.

CONCRETE BATCH PLANT EQUIPMENT

Permit condition 3.1 provides a process description of the concrete production process at this facility.

Permit condition 3.2 provides a description of the control devices used on the concrete production equipment at this facility.

Permit condition 3.3 establishes hourly and annual emissions limits for $PM_{2.5}$, SO_2, NO_X, CO, and VOC emissions from the concrete production operation at this facility.

As discussed previously, Permit Condition 3.4 establishes a 20% opacity limit for the concrete batch plant baghouse and the boiler stacks or functionally equivalent openings associated with the concrete production operation.

Permit Condition 3.5 establishes an hourly, a daily, and an annual concrete production limit for the concrete production operation as proposed by the Applicant.

Permit condition 3.6 requires that the Applicant employ a baghouse filter to control emissions from the weigh batcher loadout operation as proposed by the Applicant.

Permit condition 3.7 requires that the Applicant employ a baghouse to control emissions from the truck loadout operation as proposed by the Applicant.

Permit condition 3.8 requires that the Applicant employ a baghouse to control emissions from the fly ash and cement silo operations as proposed by the Applicant.

Permit condition 3.9 establishes that the Permittee monitor and record hourly and daily concrete production to demonstrate compliance with the Concrete Production Limits permit condition.

Permit condition 3.10 establishes that the Permittee shall establish procedures for operating the weigh batcher, storage silos, and truck loadout baghouses. This is a DEQ imposed standard requirement for operations using baghouses to control particulate emissions.

Permit Condition 3.11 establishes that the permittee shall maintain records as required by the Recordkeeping General Provision.

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 was a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

Public Comment Period

A public comment period was made available to the public in accordance with IDAPA 58.01.01.209.01.c. During this time, comments were not submitted in response to DEQ's proposed action. Refer to the chronology for public comment period dates.

APPENDIX A – EMISSIONS INVENTORIES

Final Concrete Batch Plant Emissions Inventory

Listed Below are the emissions estimates for the units selected.

Company:	**WOOD'S CRUSHING & HAULING INC.**
Facility ID:	**017-00073**
Permit No.:	**P-2018.0019 Project 62013**
Source Type:	**Concrete Batch Plant**
Manufacturer/Model:	**Con-E-Co LP250**

Production

Maximum Hourly Production Rate:	140	cy/hr
Proposed Daily Production Rate:	1000	cy/day
Proposed Maximum Annual Production Rate:	50000	cy/year

Tons/year

Emissions Units		$PM_{2.5}$	PM_{10}	SO_2	NO_x	CO	VOC	Lead	THAPs	CO_{2e}
CBP Type:	**Truck Mix**	0.002	0.01	NA	NA	NA	NA	1.33E-05		N/A
Water Heater #1:	**2 MMBtu/hr Natural Gas Heater**	0.065	0.065	5.15E-03	0.859	0.721	0.047	4.29E-06		1037
Water Heater #2:	**No water heater**	0.000	0.000	0.00E+00	0.000	0.000	0.000	0.00E+00		0
Small Diesel Engine(s) *:	**No Engine**	0.00	0.00	0.00E+00	0.00	0.00	0.00	NA		0
Large Diesel Engine *:	**No Large Engine**	0.00	0.00	0.00E+00	0.00	0.00	0.00	NA		0
	Annual Totals (T/yr)	**0.07**	**0.07**	**5.15E-03**	**0.86**	**0.72**	**0.05**	**1.76E-05**	**3.85E-03**	**1037**

Pounds/hour

		$PM_{2.5}$	PM_{10}	SO_2	NO_x	CO	VOC	Lead	THAPs
CBP Type:	**Truck Mix**	0.023	0.05	NA	NA	NA	NA	4.46E-06	
Water Heater #1:	**2 MMBtu/hr Natural Gas Heater**	0.015	0.015	1.18E-03	0.196	0.165	0.011	9.80E-07	
Water Heater #2:	**No water heater**	0.000	0.000	0.00E+00	0.000	0.000	0.000	0.00E+00	
Small Diesel Engine(s) *:	**No Engine**	0.00	0.00	0.00E+00	0.00	0.00	0.00	NA	
Large Diesel Engine*:	**No Large Engine**	0.00	0.00	0.00E+00	0.00	0.00	0.00	NA	
	Daily Totals (lb/hr)	**0.04**	**0.06**	**1.18E-03**	**0.20**	**0.16**	**0.01**	**5.44E-06**	**2.44E-03**

*The Large engine may run : **There is no large engine.** hr/yr
*The Small engine(s) may run : **There is no small engine.** hr/yr

HAPS & TAPS Emissions Inventory

Metals	HAP	TAP	lb/hr	T/yr	Averaging Period	EL lb/hr	Exceeded?
Arsenic	X	X	8.03E-07	2.19E-06	Annual	1.50E-06	No
Barium		X	4.31E-06	1.89E-05	24-hour	3.30E-02	No
Beryllium	X	X	4.70E-08	1.26E-07	Annual	2.80E-05	No
Cadmium	X	X	2.49E-06	3.60E-06	Annual	3.70E-06	No
Cobalt	X	X	8.24E-08	3.61E-07	24-hour	3.30E-03	No
Copper		X	8.33E-07	3.65E-06	24-hour	1.30E-02	No
Chromium	X	X	1.55E-05	8.11E-06	24-hour	3.30E-02	No
Manganese	X	X	1.14E-05	6.90E-06	24-hour	3.33E-01	No
Mercury	X	X	2.55E-07	1.12E-06	24-hour	N/A	No
Molybdenum (soluble)		X	1.08E-06	4.72E-06	24-hour	3.33E-01	No
Nickel	X	X	4.84E-06	7.23E-06	Annual	2.70E-05	No
Phosphorus	X	X	4.07E-05	5.34E-06	24-hour	7.00E-03	No
Selenium	X	X	4.41E-07	3.54E-07	24-hour	1.30E-02	No
Vanadium		X	2.25E-06	9.88E-06	24-hour	3.00E-03	No
Zinc		X	2.84E-05	1.25E-04	24-hour	6.67E-01	No
Chromium VI	X	X	1.23E-07	5.41E-07	Annual	5.60E-07	No
Non PAH Organic Compunds							
Pentane		X	1.57E-03	6.87E-03	24-hour	118	No
Methyl Ethyl Ketone		X	0.00E+00	0.00E+00	24-hour	33.3	No
Non-PAH HAPs							
Acetaldehyde	X	X	0.00E+00	0.00E+00	Annual	3.00E-03	No
Acrolein	X	X	0.00E+00	0.00E+00	24-hour	1.70E-02	No
Benzene	X	X	4.12E-06	4.12E-06	Annual	8.00E-04	No
1,3 - Butadiene	X	X	0.00E+00	0.00E+00	Annual	2.40E-05	No
Ethyl Benzene	X	X	0.00E+00	0.00E+00	24-hour	29	No
Formaldehyde	X	X	1.47E-04	1.47E-04	Annual	5.10E-04	No
Hexane	X	X	1.76E-03	7.73E-03	24-hour	12	No
Isooctane	X		0.00E+00	0.00E+00	N/A	N/A	N/A
Methyl Chloroform	X	X	0.00E+00	0.00E+00	24-hour	127	No
Propionaldehyde	X	X	0.00E+00	0.00E+00	24-hour	2.87E-02	No
Quinone	X	X	0.00E+00	0.00E+00	24-hour	2.70E-02	No
Toluene	X	X	3.33E-06	1.46E-05	24-hour	25	No
o-Xylene	X	X	0.00E+00	0.00E+00	24-hour	29	No
PAH HAPs							
2-Methylnaphthalene	X	X	4.71E-08	4.71E-08	Annual	3.10E-05	No
3-Methylcholanthrene	X	X	3.53E-09	3.53E-09	Annual	2.50E-06	No
7,12-Dimethylbenz(a)anthracene	X		1.57E-08	6.87E-08	N/A	N/A	N/A
Acenaphthene	X	X	3.53E-09	3.53E-09	Annual	3.10E-05	No
Acenaphthylene	X	X	3.53E-09	3.53E-09	Annual	3.10E-05	No
Anthracene	X	X	4.71E-09	4.71E-09	Annual	3.10E-05	No
Benzo(a)anthracene	X	X	3.53E-09	3.53E-09	Annual	3.10E-05	No
Benzo(a)pyrene	X	X	2.35E-09	2.35E-09	Annual	2.00E-06	No
Benzo(b)fluoranthene	X	X	3.53E-09	3.53E-09	Annual	2.00E-06	No
Benzo(e)pyrene	X	X	0.00E+00	0.00E+00	Annual	2.00E-06	No
Benzo(g,h,i)perylene	X	X	2.35E-09	2.35E-09	Annual	3.10E-05	No
Benzo(k)fluoranthene	X	X	3.53E-09	3.53E-09	Annual	2.00E-06	No
Chrysene	X	X	3.53E-09	3.53E-09	Annual	2.00E-06	No
Dibenzo(a,h)anthracene	X	X	2.35E-09	2.35E-09	Annual	2.00E-06	No
Dichlorobenzene	X	X	2.35E-06	2.35E-06	Annual	3.10E-05	No
Fluoranthene	X	X	5.88E-09	5.88E-09	Annual	3.10E-05	No
Fluorene	X	X	5.49E-09	5.49E-09	Annual	3.10E-05	No
Indeno(1,2,3-cd)pyrene	X	X	3.53E-09	3.53E-09	Annual	2.00E-06	No
Naphthalene (24-hour)	X	X	4.37E-04	1.91E-03	24-hour	3.33	No
Naphthalene (Annual)	X	X	1.20E-06	1.20E-06	Annual	3.10E-05	No
Perylene	X		0.00E+00	0.00E+00	N/A	N/A	N/A
Phenanthrene	X	X	3.33E-08	3.33E-08	Annual	3.10E-05	No
Pyrene	X	X	9.80E-09	9.80E-09	Annual	3.10E-05	No
PAH HAPs Total	X	X	2.24E-08		Annual	2.00E-06	No
Polycyclic Organic Matter (POM)	X	X	2.24E-08	2.24E-08	Annual	2.00E-06	No

Total HAPs Emissions (lb/hr) and (T/yr): 2.44E-03 9.85E-03

7.73E-03 **Maximum Annual TAP (T/yr)**

APPENDIX B – PROCESSING FEE

PTC Processing Fee Calculation Worksheet

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: Wood's Crushing & Hauling, Inc.
Address: 933 Woodside Rd.
City: Sandpoint
State: Idaho
Zip Code: 83864
Facility Contact: Brian L. Wood
Title: President
AIRS No.: 017-00073

Y	Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
N	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_X	0.9	0	0.9
SO_2	0.0	0	0.0
CO	0.7	0	0.7
PM10	0.1	0	0.1
VOC	0.5	0	0.5
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	**2.2**
Fee Due	**$ 500.00**		

Comments: