ANCHOR QEA

6720 South Macadam Ave., Suite 300
Portland, Oregon 97219
Phone 503.670.1108

December 28, 2023

Aaron Manley
Engineer II
Olympic Region Clean Air Agency
2940 Limited Lane NW
Olympia, WA 98502

Re: Ag Processing, Inc. (AGP) Addendum to Notice of Construction Application for a New Commodities Receiving Terminal and Shiploader

Dear Mr. Manley:

On behalf of AGP, please accept this Application Addendum to the Notice of Construction (NOC) application submitted to ORCAA by AGP on December 1, 2023, for the new commodities receiving terminal and shiploader facility located on Terminal 4 (T4) at the Port of Grays Harbor (Port). Following the submittal of the NOC application, design improvements to the aspiration system were identified by AGP, and subsequently, the airflow to four of the planned baghouses has increased. The result of this is a slight increase in overall emissions. This addendum serves to update all parts of the application affected by the increase in airflow and emissions. In addition to the airflow increases, this addendum also includes a revision to the modeling protocol, clarifies facility operational boundaries for the purposes of New Source Performance Standards (NSPS) Subpart DD applicability, and describes an additional commodity to be handled.

During the evaluation of the baghouse flow rate design changes, dispersion modeling assumptions were reviewed. Originally, the modeling protocol used AERSCREEN output scaling factors to convert the 1-hour average results to 24-hour and annual averages. These values, 0.6 and 0.1, respectively, originate from the 1992 EPA screening guidance, *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised*. According to this guidance, the appropriate scaling factors for converting 1-hour concentrations to 24-hour and annual concentrations are 0.4 (±0.2) and 0.08 (±0.02), respectively. AERSCREEN

defaults to the most conservative (highest) factor, but this appears to be contrary to the guidance presented in the source document. The 1992 guidance states that the factors may be modified using the parenthetical values, in cases such as, "if aerodynamic downwash or terrain is a problem at the facility, or if the emission height is very low." Because dispersion from the proposed facility is not challenged by complex terrain or significant downwash, the modeling protocol has been revised to use the recommended values. The recommended values incorporate a degree of conservatism already, so increasing them only resulted in overconservative estimates for this scenario.

After conversations with ORCAA regarding NSPS Subpart DD applicability, AGP has affirmed that the operations at T4 are completely physically separate from the Terminal 2 (T2) facility. There are no shared equipment or process linkages between the two terminals, and the T4 transload operations have no access to commodity storage. Based on this and the definitions of "grain terminal elevator" and "grain storage elevator" in 40 CFR 60.301, it is AGP's position that T4 is not an "affected facility" under NSPS Subpart DD, even if handling grains as defined in Subpart DD. Should future modifications to the facility include the addition of permanent storage capacity or interconnection between process equipment at T2 and T4, further permitting action would be required and NSPS Subpart DD applicability could be reevaluated at that time.

Below is a summary of modifications to the NOC application:

- Volumetric flow rate of Pit 3 Receiving Baghouse (FH-4013) and Pit 4 Receiving Baghouse (FH-4306) are increased from 41,900 acfm to 43,400 acfm.
- Volumetric flow rate of Pit 3 Transfer Baghouse (FH-4211) and Pit 4 Transfer Baghouse (FH-4511) are increased from 5,500 acfm to 9,600 acfm.
- "Grains" are added to the list of allowed commodities, to allow for the flexibility to transload grains at T4. Soybean meal is still the primary commodity and dry distiller grains will remain a potential commodity.
- Revised versions of the following attachments:
    - Emissions calculations
    - Form 4

- Form 12 for each of the four (4) affected baghouses
- Modeling protocol and screening results
- Site emissions plan

Thank you for your review of these materials. Please feel free to contact me if you have any questions or require additional information.

Sincerely,

Chris Moelter
Senior Managing Environmental Planner

Cc: Kelly Jorgensen, AGP
Stewart Marker, AGP
Josh Bartlett, Anchor QEA
Kim Marcotte, Anchor QEA

Attachments:

Potential to Emit Calculations
Form 4
Form 12 for four affected baghouses
Revised Modeling Protocol and Screening Results
Site Emissions Plan

Potential to Emit Calculations

Baghouse	Emission Point	Equipment ID	Air Flow	Grain Loading		Conversion Factors		PM Emissions	
			acfm	gr/dscf	gr/min	min/hr	gr/lb	lb/hr	tpy
Pit 3 Receiving	EP-4001	FH-4013	43,400	0.001	43.4	60	7000	0.372	1.629
Pit 3 Transfer	EP-4201	FH-4211	9,600	0.001	9.6	60	7000	0.082	0.360
Pit 4 Receiving	EP-4301	FH-4306	43,400	0.001	43.4	60	7000	0.372	1.629
Pit 4 Transfer	EP-4501	FH-4511	9,600	0.001	9.6	60	7000	0.082	0.360
Shiploader Transfer 1	EP-4601	FH-4605	3,500	0.001	3.5	60	7000	0.030	0.131
Shiploader Transfer 2	EP-4602	FH-4610	3,500	0.001	3.5	60	7000	0.030	0.131
Shiploader West	EP-4701	FH-4703	6,000	0.001	6	60	7000	0.051	0.225
Shiploader Center	EP-4801	FH-4803	6,000	0.001	6	60	7000	0.051	0.225
Shiploader East	EP-4901	FH-4903	6,000	0.001	6	60	7000	0.051	0.225
							All	1.071	4.693

Notes:

Only 2 shiploaders can be operated at once, due to design of the transfer tower. Max hourly emissions represent 2 shiploader baghouses.

acfm: actual cubic feet per minute

gr/dscf: grains per dry standard cubic foot

gr/lb: grains per pound

gr/min: grains per minute

lb/hr: pounds per hour

min/hr: minutes per hour

tpy: tons per year

FORM 4
FACILITY EMISSIONS SUMMARY

Facility: Ag Processing Inc.,Terminal 4 at Port of Grays Harbor

Instructions: on back.

Emission Unit ID#	TSP	PM-10	SOx	NOx	VOC	CO
FH-4013	1.629	1.629				
FH-4211	0.360	0.360				
FH-4306	1.629	1.629				
FH-4511	0.360	0.360				
FH-4605	0.131	0.131				
FH-4610	0.131	0.131				
FH-4703	0.225	0.225				
FH-4803	0.225	0.225				
FH-4903	0.225	0.225				
Facility Total	4.693	4.693	0.00	0.00	0.00	0.00

OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

FORM 12 BAGHOUSE

FH-4013 PIT 3 RECEIVING BAGHOUSE

GENERAL INFORMATION

Facility Name: Ag Processing Inc. Terminal 4 at Port of Grays Harbor FH-4013 PIT 3 RECEIVING BAGHOUSE	Contact Person: Kelly Jorgensen Phone Number: 402-498-5501 Email: kjorgensen@agp.com
Facility Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun	Baghouse Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun

x new unit installation ____ modification	Manufacturer: Schenck Process LLC	Model & Serial #s: M/N: 120MCF1120-500; S/N: 1100508678-040-1

TECHNICAL SPECIFICATIONS

Air Flow: design acfm 43,400 operating acfm 43,400 temperature (F°) Ambient	System Parameters: pressure drop (inches water) 0"-19" water vapor content (lbs water/lb dry air) fan power (hp) 200

Describe filter material:

DYNA-MAC 16 oz. Dacron Polyester Bags

Describe bag cleaning mechanism and cycle:

Pulse jet

Describe operation of baghouse including use of safety bypasses, monitoring and maintenance schedules and any other pertinent information relating to particulate emissions (use additional pages if necessary):

See process flow and schematic

PARTICULATE EMISSIONS DATA

Particulate Emissions: inlet (gr/scf) _____ outlet (gr/scf) 0.001 gr/dscf	Particulate Control Efficiency: filtering velocity (acfm/ft^2 cloth) 7.0:1 particulate control efficiency (%): 99.99%

Describe Particulate Emissions: Grain and grain by-product particulates below 10 microns in diameter.

Micron Range:	Inlet Loading (% of total)	Outlet Loading (% of total)
0 - 5	40 %	66 %
5 - 10	21 %	34 %
greater than 10	39 %	0 %

OTHER INFORMATION

The following information is needed to complete the application:

1. Manufacturer brochure or technical fact sheet for filter material.
2. Scaled technical drawings of the baghouse including top, side and interior views.
3. Manufacturer brochure or technical fact sheet for baghouse.

Note: See back side of form for ORCAA approved equipment and operations.

OLYMPIC REGION CLEAN AIR AGENCY

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FORM 12
BAGHOUSE FH-4306 PIT 4 RECEIVING BAGHOUSE

GENERAL INFORMATION

Facility Name: Ag Processing Inc. Terminal 4 at Port of Grays Harbor FH-4013 PIT 3 RECEIVING BAGHOUSE	Contact Person: Kelly Jorgensen Phone Number: 402-498-5501 Email: kjorgensen@agp.com
Facility Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun	Baghouse Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun

x new unit installation ____ modification	Manufacturer: Schenck Process LLC	Model & Serial #s: M/N: 120MCF1120-500; S/N: 1100508678-040-1

TECHNICAL SPECIFICATIONS

Air Flow: design acfm 43,400 operating acfm 43,400 temperature (F°) Ambient	System Parameters: pressure drop (inches water) 0"-19" water vapor content (lbs water/lb dry air) fan power (hp) 200

Describe filter material:

DYNA-MAC 16 oz. Dacron Polyester Bags

Describe bag cleaning mechanism and cycle:

Pulse jet

Describe operation of baghouse including use of safety bypasses, monitoring and maintenance schedules and any other pertinent information relating to particulate emissions (use additional pages if necessary):

See process flow and schematic

PARTICULATE EMISSIONS DATA

Particulate Emissions: inlet (gr/scf) _____ outlet (gr/scf) 0.001 gr/dscf	Particulate Control Efficiency: filtering velocity (acfm/ft^2 cloth) 7.0:1 particulate control efficiency (%): 99.99%

Describe Particulate Emissions: Grain and grain by-product particulates below 10 microns in diameter.

Micron Range:	Inlet Loading (% of total)	Outlet Loading (% of total)
0 - 5	40 %	66 %
5 - 10	21 %	34 %
greater than 10	39 %	0 %

OTHER INFORMATION

The following information is needed to complete the application:
1. Manufacturer brochure or technical fact sheet for filter material.
2. Scaled technical drawings of the baghouse including top, side and interior views.
3. Manufacturer brochure or technical fact sheet for baghouse.

Note: See back side of form for ORCAA approved equipment and operations.

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2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

FORM 12
BAGHOUSE

FH-4211 PIT 3 XFER BAGHOUSE

GENERAL INFORMATION

Facility Name: Ag Processing Inc. Terminal 4 at Port of Grays Harbor FH-4013 PIT 3 RECEIVING BAGHOUSE	Contact Person: Kelly Jorgensen Phone Number: 402-498-5501 Email: kjorgensen@agp.com
Facility Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun	Baghouse Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun

x new unit installation ____ modification	Manufacturer: Schenck Process LLC	Model & Serial #s: M/N: 120MCF1120-500; S/N: 1100508678-040-1

TECHNICAL SPECIFICATIONS

Air Flow: design acfm 43,400 operating acfm 43,400 temperature (F°) Ambient	System Parameters: pressure drop (inches water) 0"-19" water vapor content (lbs water/lb dry air) fan power (hp) 200

Describe filter material:

DYNA-MAC 16 oz. Dacron Polyester Bags

Describe bag cleaning mechanism and cycle:

Pulse jet

Describe operation of baghouse including use of safety bypasses, monitoring and maintenance schedules and any other pertinent information relating to particulate emissions (use additional pages if necessary):

See process flow and schematic

PARTICULATE EMISSIONS DATA

Particulate Emissions: inlet (gr/scf) _____ outlet (gr/scf) 0.001 gr/dscf	Particulate Control Efficiency: filtering velocity (acfm/ft^2 cloth) 7.0:1 particulate control efficiency (%): 99.99%

Describe Particulate Emissions: Grain and grain by-product particulates below 10 microns in diameter.

Micron Range:	Inlet Loading (% of total)	Outlet Loading (% of total)
0 - 5	40 %	66 %
5 - 10	21 %	34 %
greater than 10	39 %	0 %

OTHER INFORMATION

The following information is needed to complete the application:

1. Manufacturer brochure or technical fact sheet for filter material.
2. Scaled technical drawings of the baghouse including top, side and interior views.
3. Manufacturer brochure or technical fact sheet for baghouse.

Note: See back side of form for ORCAA approved equipment and operations.

OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

FORM 12
BAGHOUSE

FH-4511 PIT 4 XFER BAGHOUSE

GENERAL INFORMATION

Facility Name: Ag Processing Inc. Terminal 4 at Port of Grays Harbor FH-4013 PIT 3 RECEIVING BAGHOUSE	Contact Person: Kelly Jorgensen Phone Number: 402-498-5501 Email: kjorgensen@agp.com
Facility Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun	Baghouse Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr Check days when operating: M T W Th F Sat Sun

x new unit installation ____ modification	Manufacturer: Schenck Process LLC	Model & Serial #s: M/N: 120MCF1120-500; S/N: 1100508678-040-1

TECHNICAL SPECIFICATIONS

Air Flow: design acfm 43,400 operating acfm 43,400 temperature (F°) Ambient	System Parameters: pressure drop (inches water) 0"-19" water vapor content (lbs water/lb dry air) fan power (hp) 200

Describe filter material:

DYNA-MAC 16 oz. Dacron Polyester Bags

Describe bag cleaning mechanism and cycle:

Pulse jet

Describe operation of baghouse including use of safety bypasses, monitoring and maintenance schedules and any other pertinent information relating to particulate emissions (use additional pages if necessary):

See process flow and schematic

PARTICULATE EMISSIONS DATA

Particulate Emissions: inlet (gr/scf) _____ outlet (gr/scf) 0.001 gr/dscf	Particulate Control Efficiency: filtering velocity (acfm/ft^2 cloth) 7.0:1 particulate control efficiency (%): 99.99%

Describe Particulate Emissions: Grain and grain by-product particulates below 10 microns in diameter.

Micron Range:	Inlet Loading (% of total)	Outlet Loading (% of total)
0 - 5	40 %	66 %
5 - 10	21 %	34 %
greater than 10	39 %	0 %

OTHER INFORMATION

The following information is needed to complete the application:

1. Manufacturer brochure or technical fact sheet for filter material.
2. Scaled technical drawings of the baghouse including top, side and interior views.
3. Manufacturer brochure or technical fact sheet for baghouse.

Note: See back side of form for ORCAA approved equipment and operations.

6720 South Macadam Avenue, Suite 300
Portland, Oregon 97219
503.670.1108

ANCHOR QEA

Memorandum

December 28, 2023

To: Aaron Manley, PE, Olympic Regional Clean Air Agency (ORCAA)

From: Josh Bartlett and Chris Moelter, Anchor QEA, LLC

cc: Kelly Jorgensen and Stewart Marker, Ag Processing, Inc (AGP)

Re: Revised Modeling Protocol to Support NOC Application for Ag Processing Facility at Port of Grays Harbor Terminal 4

Introduction

Ag Processing, Inc. (AGP), is proposing construction of a new dry bulk transload facility at Terminal 4B (T4B) at the Port of Grays Harbor (Port). The facility will primarily handle soybean meal, with the potential to handle dry distiller grains. The Port is located on the Pacific coast of Washington state in the cities of Hoquiam and Aberdeen in Grays Harbor County. AGP's proposed emission sources include a new rail receiving building with two receiving pits; a new three-tower shiploader with three spouts at the T4B dock; and several grain handling structures including conveyors, a bulk scale tower, and baghouses. Emissions from all baghouses will be included in the merged stack emissions for the purposes of the ambient impact screening.

Additional non-emitting facilities including landside and dockside motor control centers will be built, and the existing T4B dock will undergo reconstruction to support the shiploader. Existing terminal utilities and lighting systems will be upgraded to serve the new transload facility. AGP's proposed facilities would be a component of the larger Port of Grays Harbor Terminal 4 (T4) Expansion and Redevelopment Project, which includes upgrades to rail, dock, and cargo yard infrastructure to increase rail and shipping capacity at T4 at the Port to accommodate growth of dry bulk, breakbulk, and roll-on/roll-off cargos.

This modeling protocol describes how AGP intends to model emissions in support of a notice of construction (NOC) application for the emission units identified above to the Olympic Region Clean Air Agency (ORCAA). A significant impact level (SIL) screening analysis for PM_{10} and $PM_{2.5}$ (fine particulate matter with particle diameters less than 10 microns or 2.5 microns, respectively) will be conducted using AERSCREEN. If the SIL is exceeded for any of the pollutants, a National Ambient Air Quality Standard (NAAQS) modeling analysis will be conducted using AERMOD. This memorandum serves as AGP's dispersion modeling protocol using recommended screening-level modeling techniques for submittal to ORCAA. This protocol describes the proposed methodologies that will be used in the air dispersion modeling analysis to demonstrate compliance with the applicable 24-hour

and annual PM_{10} and $PM_{2.5}$ insignificant impact thresholds established by ORCAA Rule 6.1.4, and NAAQS established by the United States Environmental Protection Agency (EPA).

Modeling Approach

Dispersion modeling will be conducted to demonstrate compliance with SILs for PM_{10} and $PM_{2.5}$. If the SIL screening does not demonstrate compliance for any of the given pollutants, then detailed dispersion modeling will be conducted to demonstrate compliance with NAAQS. Table 1 shows the applicable SILs and NAAQS.

Table 1
SIL and NAAQS Thresholds for Relevant Pollutants

Pollutant	Averaging Period	SIL ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
PM_{10}	Annual	1.0	n/a
	24-hour	5.0	150
$PM_{2.5}$	Annual	0.3	12
	24-Hour	1.2	35

Note:
$\mu g/m^3$: microgram per cubic meter

SIL Screening and Modeling

For the SIL screening analysis, each given pollutant will be compared to the SILs in Table 1. Only the emissions associated with AGP's proposed emissions sources will be modeled. Impacts from nearby and other sources, including background concentration, will not be considered in the SIL screening analysis. If the screening results are below the SILs, no further modeling is proposed. If screening results indicate that worst-case conditions will result in an exceedance the SIL for any given pollutant, a detailed modeling assessment in AERMOD would be performed to determine project impacts against the SILs. A detailed SIL modeling assessment would use AERMOD to incorporate terrain and meteorological data to more accurately compare ambient impacts from the sources to the SILs. If both SIL screening and SIL modeling results indicate exceedance of the insignificant impact thresholds, a cumulative NAAQS analysis would be required to ensure that the project would not result in a threat to the attainment of ambient air quality standards.

NAAQS Modeling

In a cumulative NAAQS analysis, the scope of the analysis is expanded from the SIL analysis to include impacts from all other sources in the vicinity and background concentrations. All emission sources at the Port would be included in the NAAQS analysis. If a full NAAQS analysis is required, the modeled impacts would be added to background concentrations obtained from the Federal Aviation

Administration's Aviation Environmental Design Tool (AEDT); state, regional, and national ambient concentration model results; and nearby facilities.

If NAAQS modeling is necessary, ORCAA would be consulted to confirm the nearby source inventory and what sources need to be included in the NAAQS model. In the case that NAAQS modeling is required, a cumulative modeling protocol would be provided to ORCAA for approval prior to modeling.

Screening Protocol

This section describes the procedures that will be used to conduct the air dispersion screening analysis.

Model Selection

The latest version of the AERSCREEN model will be used to estimate worst-case maximum ground-level concentrations in the air dispersion analysis. AERSCREEN is a single-source screening version of AERMOD that will produce conservative impact estimates without the need for refined meteorological or detailed terrain data. As a worst-case analysis, AERSCREEN does not incorporate historical meteorological data in its model.

Coordinate System

The location of emission source, structures and receptors will be represented in the Universal Transverse Mercator (UTM) coordinate system using the North American Datum of 1983 (NAD83), Continental U.S. projection. UTM coordinates for this analysis will be based on UTM Zone 10. The location of the AGP project is approximately 5,201,282.7 Northing and 435,894.7 Easting in UTM zone 10.

Terrain Elevations

Terrain elevations for receptors, buildings, and sources are determined using National Elevation Dataset (NED) supplied by the United States Geological Survey. AERSCREEN utilizes the AERMOD[1] preprocessor, AERMAP version 18081, to compute model object elevations from the NED grid spacing. AERMAP also calculates hill height data for all receptors. All data obtained from the NED files will be checked for completeness and spot-checked for accuracy.

Urban/Rural Determination

The Multi-Resolution Land Characteristics Consortium National 2021 Land Cover Database (NLCD) was reviewed to determine whether the site location should be classified as urban or rural. According to 40 *Code of Federal Regulations* (CFR) Part 51 Appendix W, Section 7.2.1.1(b)(i), the land use is

[1] 40 CFR 51, Appendix W–Guideline on Air Quality Models, Appendix A.1– AMS/EPA Regulatory Model (AERMOD)

classified as "urban" for modeling purposes if more than 50% of the land surface in a 3-kilometer (km) radius circle around the facility is categorized as "developed, high intensity" or "developed, medium intensity." The NLCD2021 data map indicates that only 26% of the land within a 3-km radius of the facility is designated as "developed, high intensity" or "developed, medium intensity." Therefore, since less than 50% of the land meets the criteria for the "urban" setting, AERSCREEN's default rural option will be used.

Receptor Grids

AERSCREEN automatically generates a polar-grid receptor network with spacing determined by the maximum distance to model. The receptor grid selected for this analysis extends 3 km from the source. If screening results indicate that significant concentrations may occur beyond 3 km, the receptor grid will be extended. The minimum receptor distance represents the nearest non-Port property relative to the stack. Flagpole receptors are set at a height of 1.5m.

Building Downwash

Turbulent wakes around nearby structures can impact dispersion of emissions from the source. The receiving building and existing warehouse to the east of the proposed facility will be included in the AERSCREEN input to account for downwash.

Source Types and Parameters

Emissions from the baghouses will be represented in the model as a merged stack point source. Stack parameters are summarized in Table 2. The merged stack emission point uses an emission rate equal to the combined emissions of all proposed baghouses. Per EPA screening procedures for stationary sources[2], sources that emit the same pollutant from several stacks with similar parameters that are within about 100 meters of each other may be analyzed by treating all of the emissions as coming from a single representative stack by selecting a "representative" stack. The representative stack in this case is that of the Pit 4 Receiving Baghouse based on these screening procedures. This baghouse is located next to the identical Pit 3 Receiving Baghouse, and the two baghouses combined produce 70% of the total point source emissions for the facility.

[2] USEPA, 1992. Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised. EPA 454/R-92-019. Available at: https://www.epa.gov/sites/default/files/2020-09/documents/epa-454r-92-019_ocr.pdf.

Table 2
Model Source Parameters

Source	UTM Coordinates (m)	Elevation (ft)	Emission Rate (lb/hr)	Stack Height (ft)	Stack Temperature (F)	Stack Flow Rate (acfm)	Stack Diameter (ft)
Merged Stack EP-4301	435,905.99 E 5,201,276.09 N Zone 10	15.2	0.975[3]	40	Ambient	43,400	3.5

Notes:
acfm: actual cubic feet per minute
F: Fahrenheit
ft: foot
lb/hr: pound per hour
m: meters

Model Settings and Assumptions

Table 3 outlines the AERSCREEN settings proposed for use in the screening model.

Table 3
Model Settings and Assumptions

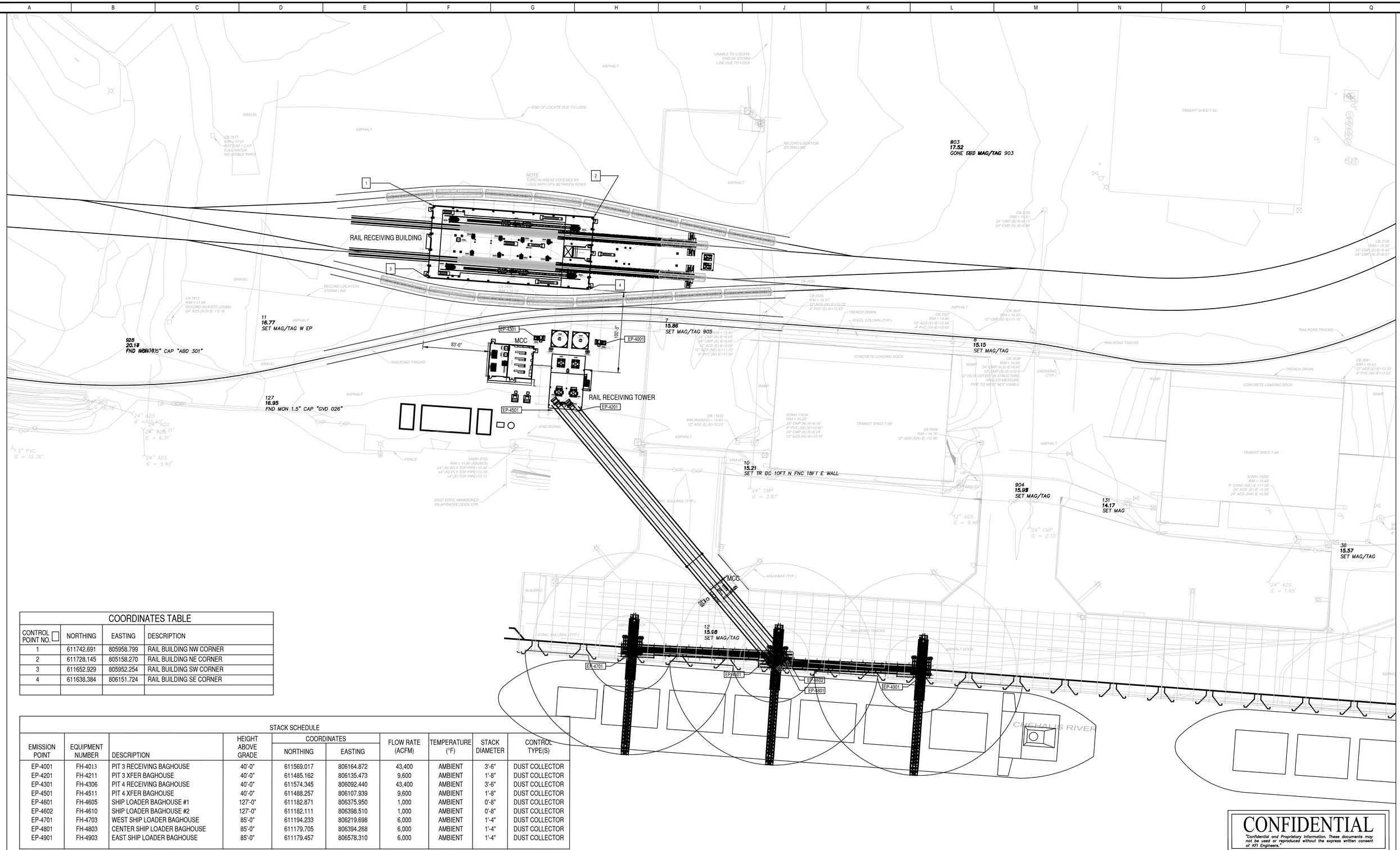
Setting	Assumption	Notes
Rural/Urban	Rural	As discussed above, the surrounding area suggests use of the rural setting.
Building Downwash	On	New receiving building and existing warehouse to the east of facility included
Terrain Impacts	Off	Disabled by default
Surface Characteristics	AERMET Seasonal Tables	Selected Urban, Average Moisture AERMET seasonal tables based on location and normal precipitation
Flagpole Receptors	1.5 m	Per ORCAA requirement
Fumigation Options	Disabled	Disabled by default
Concentration Scaling Factors	0.04 for 24-hour average 0.08 for annual average	These scaling factors are applied to the maximum 1-hour average concentrations that AERSCREEN outputs directly. These are the scaling factors recommended by USEPA 1992[4].
Particle Size Distribution	$PM_{2.5}$ = 37.7% of PM_{10}	This is based on AP-42 Appendix B.2 grain processing particle size distribution. The processes being modeled more closely resemble grain handling than grain processing; however, the commodity itself (soybean meal) is comprised of smaller particles rather than whole grains, so this more conservative distribution is used.

[3] This hourly emission rate of 0.975 lb/hr includes emissions from both receiving pit baghouses, both transfer baghouses, both shiploader initial conveyor baghouses, and two of three shiploader baghouses (a maximum of two can be operated at any one time). All baghouse emissions are assumed to be PM_{10}.

[4] USEPA, 1992. Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised. EPA 454/R-92-019. Available at: https://www.epa.gov/sites/default/files/2020-09/documents/epa-454r-92-019_ocr.pdf

Setting	Assumption	Notes
Meteorological Data	Default AERMET settings	AERSCREEN uses AERMET to create generic meteorological files for screening purposes. AERSCREEN defaults will be used in the screening model.

Note:
m: meter



COORDINATES TABLE

CONTROL POINT NO.	NORTHING	EASTING	DESCRIPTION
1	611742.691	805958.799	RAIL BUILDING NW CORNER
2	611728.145	805158.270	RAIL BUILDING NE CORNER
3	611652.929	805952.254	RAIL BUILDING SW CORNER
4	611638.384	806151.724	RAIL BUILDING SE CORNER

STACK SCHEDULE

EMISSION POINT	EQUIPMENT NUMBER	DESCRIPTION	HEIGHT ABOVE GRADE	COORDINATES		FLOW RATE (ACFM)	TEMPERATURE (°F)	STACK DIAMETER	CONTROL TYPE(S)
				NORTHING	EASTING				
EP-4001	FH-4013	PIT 3 RECEIVING BAGHOUSE	40'-0"	611569.017	806164.872	43,400	AMBIENT	3'-6"	DUST COLLECTOR
EP-4201	FH-4211	PIT 3 XFER BAGHOUSE	40'-0"	611485.162	806135.473	9,600	AMBIENT	1'-8"	DUST COLLECTOR
EP-4301	FH-4306	PIT 4 RECEIVING BAGHOUSE	40'-0"	611574.345	806092.440	43,400	AMBIENT	3'-6"	DUST COLLECTOR
EP-4501	FH-4511	PIT 4 XFER BAGHOUSE	40'-0"	611488.257	806107.939	9,600	AMBIENT	1'-8"	DUST COLLECTOR
EP-4601	FH-4605	SHIP LOADER BAGHOUSE #1	127'-0"	611182.871	806375.950	1,000	AMBIENT	0'-8"	DUST COLLECTOR
EP-4602	FH-4610	SHIP LOADER BAGHOUSE #2	127'-0"	611182.111	806398.510	1,000	AMBIENT	0'-8"	DUST COLLECTOR
EP-4701	FH-4703	WEST SHIP LOADER BAGHOUSE	85'-0"	611194.233	806219.698	6,000	AMBIENT	1'-4"	DUST COLLECTOR
EP-4801	FH-4803	CENTER SHIP LOADER BAGHOUSE	85'-0"	611179.705	806394.268	6,000	AMBIENT	1'-4"	DUST COLLECTOR
EP-4901	FH-4903	EAST SHIP LOADER BAGHOUSE	85'-0"	611179.457	806578.310	6,000	AMBIENT	1'-4"	DUST COLLECTOR

1 GA-0105 SITE EMISSIONS PLAN AT T4 TERMINAL 1"=50'-0"

0 25' 50' 200'

NORTH

KFI ENGINEERS
670 County Road B West
St. Paul, Minnesota 55113
Tel: (651) 771-0880 Fax: (651) 771-0878
Email: kfi@kfi-eng.com

ISSUE	REVISION	INIT	DATE
1	REVISED AIRFLOWS	KFI	12/21/23
0	ISSUED FOR CONSTRUCTION	KFI	11/17/23

AGP AG Processing Inc
12700 WEST DODGE ROAD
OMAHA, NEBRASKA 68154

GRAYS HARBOR TRANSLOAD FACILITY
SITE EMISSIONS PLAN
ABERDEEN, WASHINGTON

DRAWN	KFI	09/25/23
FILENAME	23-0192	

GA-0105