Notice of Construction (NOC) Worksheet

PUGET SOUND
Clean Air Agency

Applicant: Cadman Materials	**NOC Number**: 11861
Project Location: 6431 NE 175th Street, Kenmore, WA 98115	**Registration Number**: 16101
Applicant Name and Phone: Christy McDonough, 425-698-3226	**NAICS: 324121**
Engineer: Brian Renninger, John Dawson	**Inspector**: Melissa McAfee

A. DESCRIPTION

For the Order of Approval:
Replacement of and changes to equipment at an existing Hot Mix Asphalt Plant. New equipment include: a drum dryer and related natural gas-fired burner (200 TPH Capacity, 100 MMBtu/hr), changes to the associated baghouse (68,600 acfm), and replacement of condensers on two hot asphaltic cement tanks (25,000 gal & 10,000 gal, 300 gpm). Existing equipment includes: a pugmill/weigh hopper for mixing dried aggregate with asphaltic cement, and a hot rock conveyor. Other existing equipment ducted to the baghouse include: the flight conveyor for loading two silos (150 ton each) for storing asphaltic concrete, and the truck loadout.

Additional Information (if needed):

Facility

This application was submitted as the result of receiving NOV 3-009870 which was issued in the field on March 6, 2019 for the dryer replacement, alterations to the baghouse, and replacement of the condensers.

Proposed Equipment/Activities

Note that existing equipment includes: a pugmill/weigh hopper for mixing dried aggregate with asphaltic cement, and a hot rock conveyor. Other existing equipment ducted to the baghouse include: the flight conveyor for loading two silos (150 ton each) for storing asphaltic concrete, and the truck loadout. The pugmill/weighopper and hot rock conveyor are not under review as part of this project. The flight conveyor to the two storage silos and truck loadout which duct emissions to the baghouse are subject to review and RACT due to the substantially altered control device.

The changes being reviewed for this order of approval have all already been completed. The changes include:

- April 2018 dryer shell replaced along with several "stages" Per application, H&R Mechanical 8' x 30' with a new Hauk Ecostar Burner ES 100 100 MMBtu/hr burner. This replacement of the dryer shell and burner is considered a new source per Agency Regulation I, Section 6.03(a).

- Substantial alterations were made to the facility baghouse in 2006 and 2016. The table below compares the baghouse after the two permitted installation NOC 939 & NOC 3536 as well as

changes made absent review. The items marked in blue are specifications included in either permit applications or other communications with the agency. Items marked in yellow are estimates based on the available parameters. The baghouse controls emissions from the drum dryer, the batch flight conveyor, the two asphaltic concrete storage silos, and emissions captured from the scavenger duct from the truck loadout. Note that the truck loadout scavenger duct was installed in 2010 when the Agency ruled that the addition did not constitute a substantial alteration to the baghouse. However, the substantial alteration of the baghouse draws all the listed sources into RACT review per WAC 173-400-114.

	NOC 939 4/2/1973	NOC 3536 6/1/1990	Date After 1/1/2006	Date After 3/1/2016
# bags	728	728	660	405
bag diameter (ft)		0.39	0.5	0.5
bag length (ft)		8.55	12	11.33
surface area of bag (ft2)	9.4	10.5	19.0	18.0
Total Area	6,857	7,620	12,570	7,290
Temperature (F)	250	210		250
Flow (acfm)	44,000	54,000	68,600	68,600
Air-to-cloth ratio	6.4	7.1	5.5	9.4

a. Blue indicates data provided in letter and supporting documents, and historical NOC applications.
b. Yellow indicates parameters estimated from given data.

- In April 2011 condensers were added to the control VOC emissions from the two asphaltic cement storage tanks. This addition by itself did not require new permits. In 2017 the condenser on the smaller tank was moved to the larger tank and a new condenser was installed on the smaller tank. The 2017 changes constituted replacement of a control device per WAC 173-400-114 which required permitting review. Under WAC 173-400-114 the contents of the tanks (which generate the emissions) are under review for RACT.

Permit History

- **939 Issued 4/4/1973**

NOC Description: Micropulse-aire WAG No. 13 baghouse with two Stansteel cyclones to control existing batch plant emissions.

Application Describes:

1. burner as "Gas-oil combination" and "Genco" No rating given.
2. baghouse as Micropulse-aire WAG#13 34' 6" x 12' 8" x 15' 6", 728 bags, reverse air pulse, 6857 ft2 nomex bags. 44,000 cfm at 250F.
3. fan as Argo #90 950 rpm, 200 hp.

4. stack as: 31" x 31" x 5', 250 F.
5. cyclone as: body dia 84", outlet diameter as 28" x 48", body height 110", inlet area 8 square feet.

- **NOC 1938 Issued 8/8/1979**

NOC Description: Installation of 2,500 CFM Fume Scavaging System to control emissions from existing Asphalt Batch Flight Conveyor and Two storage silos.

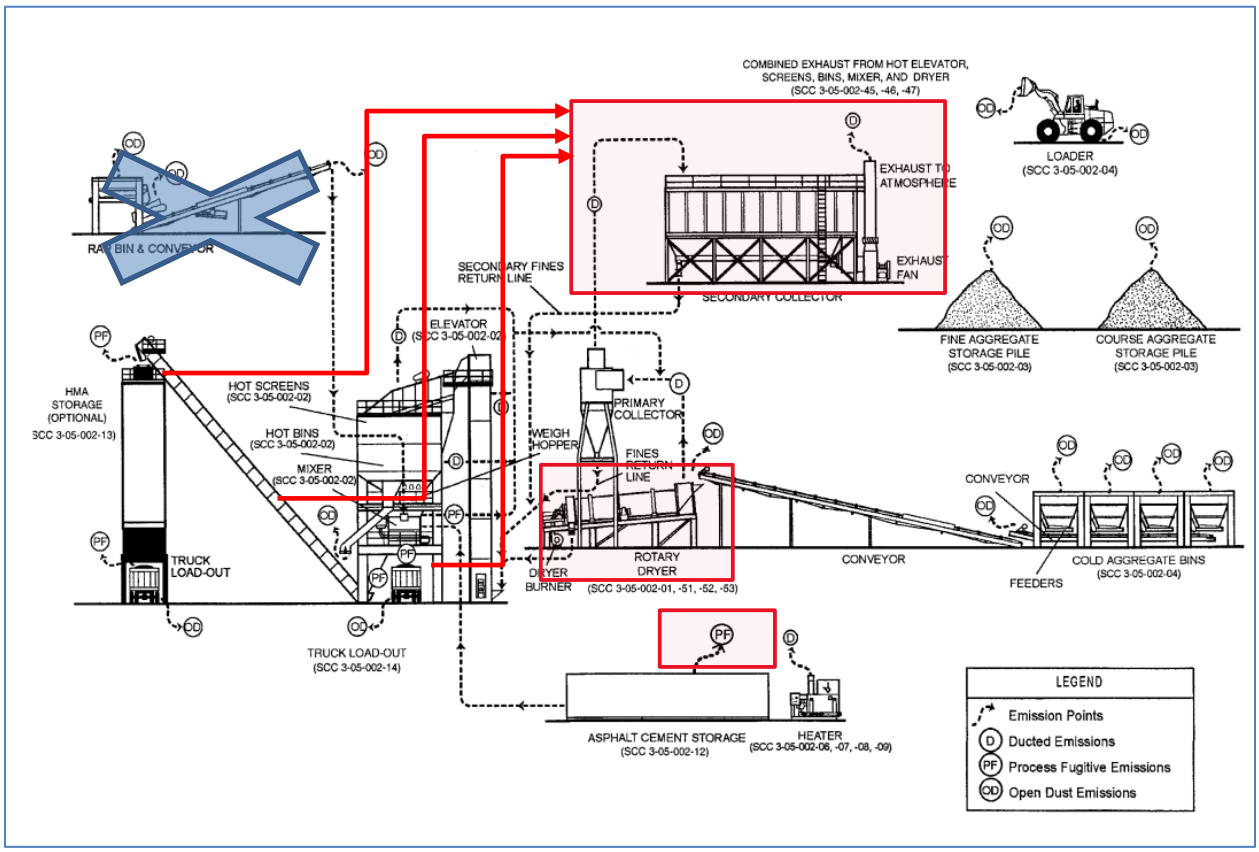
Application Description: 14' scavenger pipe - 32" x 42" exhaust stack.

- **NOC 3536 Issued 6/14/1990**

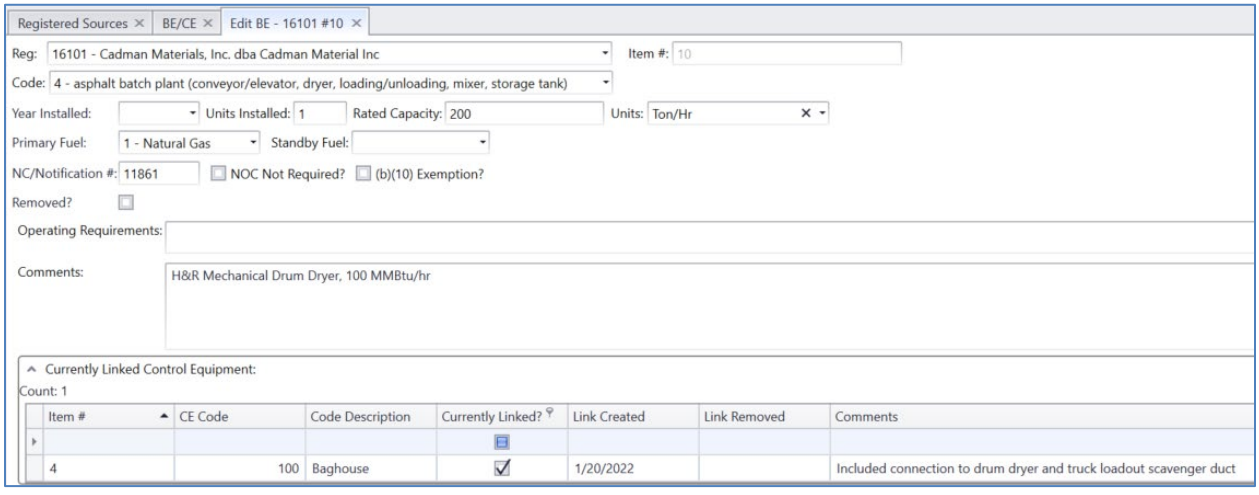
Application Description:

- For the processing of hydrocarbon contaminated soils in the existing hot mix asphalt plant
- Genco FP103 103 MMBtu/hr burner
- Standard Steel 200 TPH plant 1967

As the result of this application NOC 939, NOC 1938, and NOC 3536 will be cancelled and superseded. For the treatment of hydrocarbon contaminated soil reviewed in NOC 3536, the drum dryer that would have processed that soil has been replaced. To the best of the Agency's knowledge the prior dryer was never used to process contaminated soils and thus the project reviewed for NOC 3536 was never completed. The current application reviewing the new drum dryer (and burner) does not address contaminated soil and thus remediation of contaminated soil is not part of this application review and future processing of contaminated soil would have to undergo its own Notice of Construction application review. NOC 1938 was issued to add scavenger ducts to route emissions from the flight conveyor and storage silos through the baghouse. Because the substantial alteration of the baghouse affects these sources, NOC 1938 will be cancelled and superseded by this Order of Approval. The figure below (from EPA AP-42 Chapter 11.1) shows the general arrangement of a typical batch mix asphalt plant. The parts under review have been labeled in red. The parts which are not present at the plant have been crossed out in blue.



B. DATABASE INFORMATION



Registered Sources | BE/CE | Edit BE - 16101 #10

Reg: 16101 - Cadman Materials, Inc. dba Cadman Material Inc Item #: 10

Code: 4 - asphalt batch plant (conveyor/elevator, dryer, loading/unloading, mixer, storage tank)

Year Installed: Units Installed: 1 Rated Capacity: 200 Units: Ton/Hr

Primary Fuel: 1 - Natural Gas Standby Fuel:

NC/Notification #: 11861 NOC Not Required? (b)(10) Exemption?

Removed?

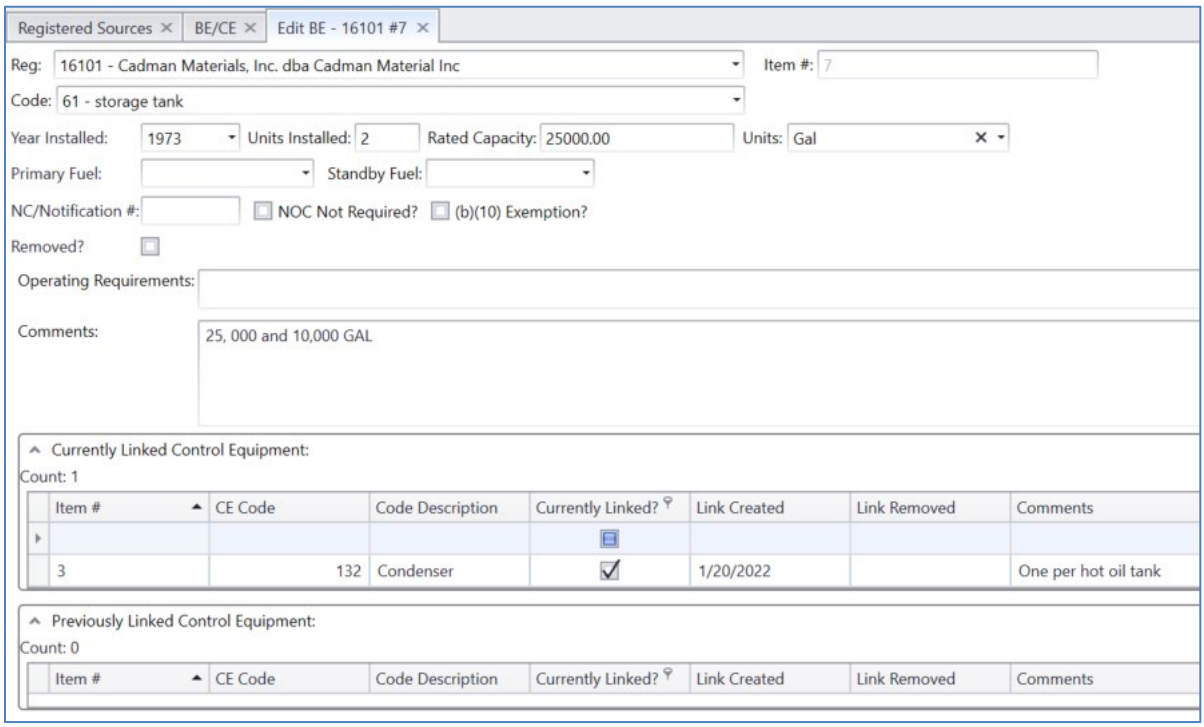
Operating Requirements:

Comments: H&R Mechanical Drum Dryer, 100 MMBtu/hr

Currently Linked Control Equipment:

Count: 1

Item #	CE Code	Code Description	Currently Linked?	Link Created	Link Removed	Comments
4	100	Baghouse	☑	1/20/2022		Included connection to drum dryer and truck loadout scavenger duct



New NSPS due to this NOCOA?	**Yes**	**Applicable NSPS: 40 CFR 60 Subpart I**	**Delegated? Yes**
New NESHAP due to this NOCOA?	**No**	**Applicable NESHAP: NA**	**Delegated? NA**
New Synthetic Minor due to this NOCOA?	**No**		

Facility is subject to 40 CFR 60 Subpart I – the New Source Performance Standard For Asphalt Concrete Plants. The original plant was constructed prior to the promulgation date of 40 CFR 60 Subpart I (June 11, 1973) and therefore the rule did not apply to the facility. Over the years numerous changes and replacements were made to the facility leading to an investigation as to whether these changes in aggregate triggered the reconstruction provisions of the New Source Performance Standards in 40 CFR 60.15. On October 30, 2020, Cadman, "…decided to accept applicability of NSPS Subpart I requirements to the Kenmore plant in the future."

C. NOC FEES AND ANNUAL REGISTRATION FEES

NOC Fees:

Fees have been assessed in accordance with the fee schedule in Regulation I, Section 6.04. All fees must be paid prior to issuance of the final Order of Approval.

Fee Description	Cost	Amount Received (Date)
Filing Fee	$ 1,150	
Equipment (burner, dryer shell, baghouse, two condensers)	$ 3,000	
SEPA (DNS)	$ 800	
Refined dispersion analysis	$ 1,000	
Synthetic Minor	$ 2,000	
Filing received		$ 1,150 (7/1/2019)
Additional fee received		$ 6,800 (10/21/2021)
Total	**$ 0**	

Registration Fees:
Registration fees are assessed to the facility on an annual basis. Fees are assessed in accordance with Regulation I, Section 5.07.

Applicability		
Regulation I	Description	Note
5.03(a)(1)	Facilities subject to federal emission standards (Title 40 CFR)	
5.03(a)(2)	Federally enforceable emission limit	
5.03(a)(6)	Facilities with particulate control equipment (>= 2,000 cfm)	
5.03(a)(8)(A)	Facilities with asphalt batch operations	
Annual Registration Fee		
Regulation I	Description	Fee
5.07(c)	Base Registration Fee	$ 1,150
5.07(c)(1)	40 CFR 60 Subpart I	$ 2,100
5.07(c)(2)	Federally Enforceable Emission Limit	$ 2,300
	Total =	$ 5,550

Note that registration fees have added the 40 CFR 60 Subpart I, and the Federally enforceable emission limit fees as the result of this project.

D. STATE ENVIRONMENTAL POLICY ACT (SEPA) REVIEW

State Environmental Policy Act (SEPA) review was conducted in accordance with Regulation I, Article 2. The SEPA review is undertaken to identify and help government decision-makers, applicants, and the public to understand how a project will affect the environment. A review under SEPA is required for projects that are not categorically exempt in WAC 197-11-800 through WAC 197-11-890. A new source review action which requires a NOC application submittal to the Agency is not categorically exempt.

The Agency researched prior SEPA determinations for the facility and located only a single determination. The was a Determination of Non-Significance made for Notice of Construction Order of Approval 3536 June 14, 1990. This determination was not relevant to the current project and dealt solely with the remediation of contaminated soils in the drier which is not part of the current review.

PSCAA is the SEPA lead agency for this project. The applicant submitted a completed Environmental checklist that is included below.

Cadman Kenmore Dryer SEPA Checklist

The City of Kenmore was consulted for comments on January 22, 2021, and replied on February 5, 2021, that "The City of Kenmore has not identified any permits that are necessary for the Cadman project. Although the City does not have any required permits that would give it a formal role in the SEPA process, it is interested in ensuring that notice of this SEPA determination is publicized to parties interested in the application. To this end, the City would like to be notified in advance of when the public comment period will start and conclude so that it can facilitate broad notification."

Figure 1 – Facility Fenceline

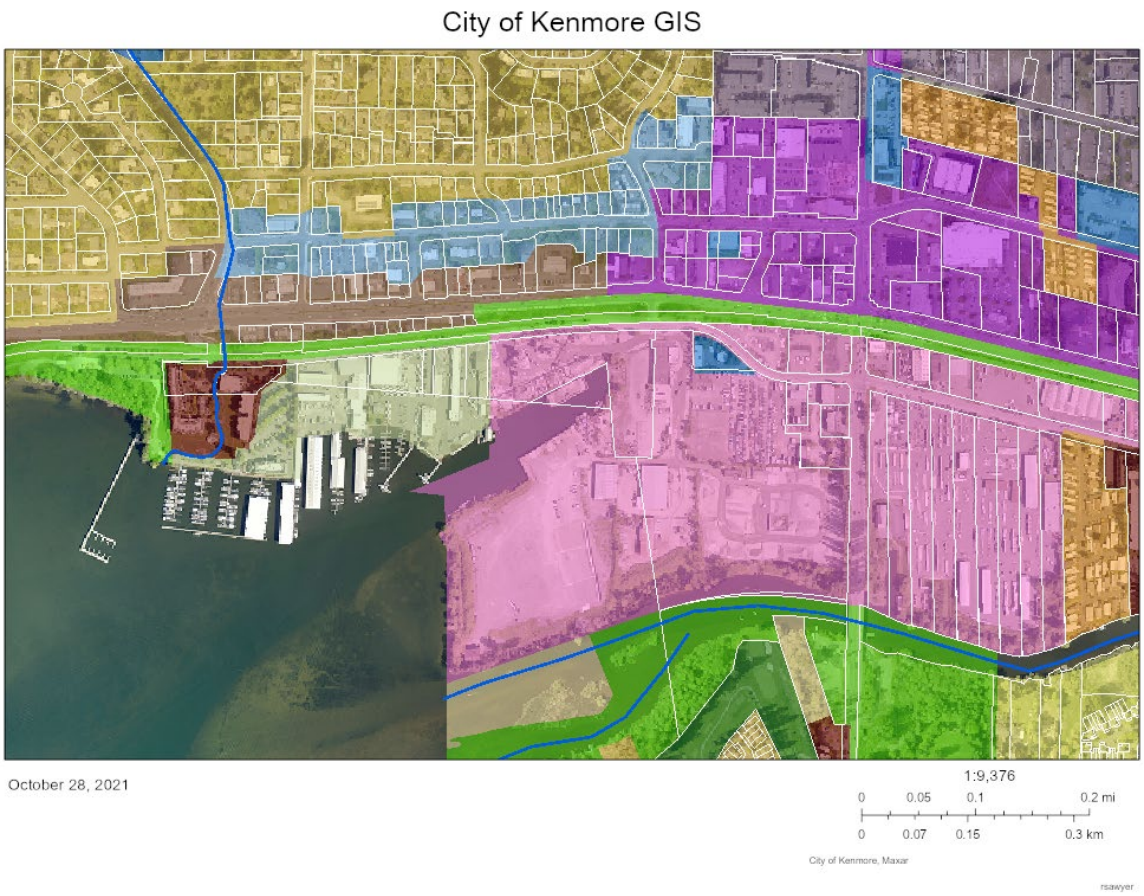


Figure 2 – Facility Zoning (pink is Zoned "Regional Business")

This facility has been located in this location for decades, and only the items reviewed in this project, listed above under "Proposed Equipment/Activities" are subject to review under SEPA. Air emissions, including odors, from the subject of this proposed action are also addressed through the application of Best Available Control Technology and Reasonably Available Control Technology (discussed below) and enforceable limitations in the Order of Approval. BACT is applicable to the equipment replaced or modified including: the drum dryer and burner. Reasonably Available Control Technology (RACT) is applicable to replaced or substantially altered control devices including: the facility baghouse, and hot oil tank condensers. Use of cutback asphalt is not being reviewed in this application as, while the contents of the tank is under review there is no plan to store cutback asphalt in the tank. Per the applicant no cutback asphalt is used at the site. All use of cutback asphalt is regulated under Agency Regulation II, Section 3.01 which governs use and application of cutback asphalts and contains express limits on aspects of cutback asphalt paving. See also later discussions of BACT and RACT and cutback asphalt.

Based on the proposed action and the information in the checklist and before the Agency, the project will not: adversely affect environmentally sensitive or special areas, or endangered or threatened species; conflict with local, state, or federal laws or requirements for the protection of the environment or establish a precedent for future actions with significant effects. This proposal is not likely to have a

probable significant adverse environmental impact, and I recommend the issuance of a Determination of Non-Significance with an opportunity for public comment.

E. TRIBAL CONSULTATION

On November 21, 2019, the Agency's Interim Tribal Consultation Policy was adopted by the Board. Criteria requiring tribal consultation are listed in Section II.A of the policy and include establishment of a new air operating permit source, establishment of a new emission reporting source, modification of an existing emission reporting source to increase production capacity, or establishment or modification of certain equipment or activities. In addition, if the Agency receives an NOC application that does not meet the criteria in Section II.A but may represent similar types and quantities of emissions, the Agency has the discretion to provide additional consultation opportunities.

This project does not meet any of the criteria for consultation listed in Section II.A of the Agency's Interim Tribal Consultation Policy. However, the Agency provided a 60-day comment period on the draft NOC and DNS; no tribes provided comments to the Agency. See also Response to Comments No. 54.

F. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) REVIEW

Best Available Control Technology (BACT)

New stationary sources of air pollution are required to use BACT to control all pollutants not previously emitted, or those for which emissions would increase as a result of the new source or modification. BACT is defined in WAC 173-400-030 as, "an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under Chapter 70.94 RCW emitted from or which results from any new or modified stationary source, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant."

An emissions standard or emissions limitation means "a requirement established under the Federal Clean Air Act or Chapter 70.94 RCW which limits the quantity, rate, or concentration of emissions of air contaminants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment, work practice, or operational standard adopted under the Federal Clean Air Act or Chapter 70.94 RCW." (WAC 173-400-030(29))

The facility carried out a stack test of the dryer baghouse stack on October 1, 2020 for particulate matter, carbon monoxide, and nitrogen oxides. The test results are shown below.

Parameter	Test Result Average
Total PM gr/dscf at 7 percent oxygen	0.0089
Filterable PM gr/dscf at 7 percent oxygen	0.002
NOx ppmdv at 7 percent oxygen	30

CO ppmdv at 7 percent oxygen	92

Best Available Control Technology for Toxics (tBACT)

New or modified sources are required to use tBACT for emissions control for TAP. Best available control technology for toxics (tBACT) is defined in WAC 173-460-020 as, "the term defined in WAC 173-400-030, as applied to TAP."

BACT for Asphalt Dryer/Mixer

Particulate Matter

Similar Permits or Other Regulatory Agencies BACT for PM:

Source	Description	PM BACT
PSCAA Order No. 10462 (December 2012)	New hot mix asphalt plant including: Astec Counter Flow, Double Barrel Dryer (400 TPH)	0.02 gr/dscf (total)
PSCAA Order No. 10852 (April 2015)	New hot mix asphalt (HMA) plant (325 TPH)	0.02 gr/dscf (total)
PSCAA Order No. 11175 (November 2016)	New hot mix asphalt (HMA) plant (300 TPH)	0.02 gr/dscf (total)
PSCAA Order No. 11274 (May 2017)	Replacement of an existing pug mill with a rotary mixer (350 TPH)	0.02 gr/dscf (total)
PSCAA Order No. 11328 (January 2018)	Replacement of the drum dryer at an existing continuous/batch Asphalt Plant.	0.027 gr/dscf (total), corrected to 7% O_2 0.014 gr/dscf (filterable), corrected to 7% O_2
PSCAA Order No. 11613 (September 2018)	Replacement of an existing pug mill with a rotary mixer (300 TPH)	0.027 gr/dscf (total), corrected to 7% O_2 0.014 gr/dscf (filterable), corrected to 7% O_2
PSCAA Order No. 11812 (December 2019)	Replacement of new 400 TPH drum mixer	0.027 gr/dscf (total), corrected to 7% O_2 0.014 gr/dscf (filterable), corrected to 7% O_2
Southwest Clean Air Agency 16-3199ADP	Replacement of parallel flow dryer/mixer with counterflow dryer/mixer (400 TPH)	0.010 gr/dscf (filterable), corrected to 15% O_2
Southwest Clean Air Agency 19-3335ADP	Replacement of existing batch tower (300 TPH) with a miniDrum asphalt mixer (500 TPH)	0.015 gr/dscf (filterable), corrected to 15% O_2
Bay Area Air Quality Management District BACT/TBACT Workbook	Hot Mix Asphalt, Drum and Batch Mix Facilities	0.01 gr/dscf (filterable)
MassDEP BACT Guideline	Hot Mix Asphalt – Batch Plants and Drum Mix Plants	0.01 gr/dscf

Analysis

The Agency historically established a total particulate BACT limit of 0.02 gr/dscf for asphalt plants, until Order No. 11328 was issued in January 2018. The Agency's historic 0.02 gr/dscf limit did not include an oxygen correction, nor, apparently, does the BAAQMD limit shown in the table above. However, there is some concern that adding dilution air during an emission test could be used to demonstrate compliance with a limit; therefore, the Agency is setting particulate limits using an

oxygen correction factor, as first established in Order No. 11328. For consistency with Agency Regulation I, Section 9.09, the standard for correction chosen is seven percent oxygen.

The same approach that was used for Order No. 11328 is being used for this analysis. The Agency reviewed thirty-two asphalt plant particulate test results to determine what current BACT for particulate should be. This data was available from the Agency, SWCAA, and Northwest Clean Air Agency (NWCAA). This analysis is fully documented in the NOC worksheet for Order No. 11328.

Based on the Agency's analysis, BACT in this Order of Approval for filterable particulate is 0.014 gr/dscf corrected to 7% oxygen and BACT is this order of Approval for total particulate is 0.027 gr/dscf corrected to 7% oxygen. The emission source test provided by the application showed the unit capable of achieving these limits with substantial margin.

As on operational practice the Agency has also routinely set limits on the use of recycled asphalt pavement (RAP) and the use of recycled asphalt shingles (RAS) to the percentage of recycled material used for passing tests of particulate matter and visible emissions. The reason for this is that use of recycled materials has contributed to increased visible emissions and elevated particulate matter emissions when the recycled materials have impinged upon the burner flame. Because the current project does not change out the mixing process, use of RAP/RAS was not reviewed. Per the applicant RAP/RAS is not currently in use at the facility nor is it proposed to be used at the site as part of this proposal. As such use of RAP/RAS is not under review and would require a separate, future application and review for the Agency to approve RAP/RAS use at this Cadman facility.

Opacity

Every new asphalt mixer reviewed by the Agency since 2008 has had a 5 percent opacity limit, including most recently, Order No. 11328 (issued January 23, 2018) and Order No. 11613 (issued September 18, 2018). SWCAA has also issued a permit with a 5% opacity limit for asphalt plants. BACT for visible emissions from the mixer baghouse is emissions no greater than 5% opacity for three minutes in an hour per a Washington Department of Ecology Method 9A visual emissions test.

Volatile Organic Compounds

Similar Permits or Other Regulatory Agencies BACT for VOC:

SWCAA issued 16-3199ADP in 2016 for the replacement of an existing parallel flow aggregate drum dryer/mixer with a counterflow drum dryer/mixer. The BACT determination for the dryer/mixer is a maximum product temperature of 315°F (mixing drum outlet) and establishes a numerical limit for VOC equal to the potential to emit for the dryer/mixer. The BAAQMD BACT Guideline lists a numerical VOC emission limit of 0.03 lb/ton for batch mix hot mix asphalt plants, and TCEQ's BACT guideline for hot mix asphalt plants lists a limit of 0.032 lb/ton. The MassDEP BACT Guideline also lists a VOC emission limit of 0.032 lb/ton.

Analysis

The Agency first set a limit on emissions of VOC from asphalt plant mixers with Order No. 11328. Order No. 11328 and Order No. 11613 include a VOC limit of 0.032 lb/ton, which is based on the AP-42 Chapter 11.1 VOC emission factor for drum mix hot mix asphalt plants, found in Table 11.1-8. For

this application, the Agency is setting 0.032 lb/ton as the BACT emission rate. The VOC limit will be presented in terms of total hydrocarbon emissions expressed as propane as measured by Method 25A, with the option to subtract methane and other compounds with negligible photochemical activity.

Order No. 11328, Order No. 11613, and SWCAA establish maximum mix temperature operating conditions, since mix temperature has been tied to VOC emissions. The issue with limiting the maximum product temperature to 315°F, as used by SWCAA, is that this restricts the type of products able to be produced by the plant, which limits the market the plant could serve. Not only does a temperature limit reduce the number of products available, it also limits the area able to be served by the plant due to cooling of the asphaltic concrete while transporting it to the site of application. Consistent with Order No. 11328 and Order No. 11613, maximum mix temperature will be limited to the maximum recommended temperature for the mix as set by the manufacturer of the asphaltic cement used in the mix specification produced plus a 25°F buffer. Mix temperature will be required to be monitored hourly in a manner similar to that specified in the State of Washington Department of Ecology General Order for Portable and Stationary Hot Mix Asphalt Plants No. 10AQ-GO-01.

Carbon Monoxide

Similar Permits or Other Regulatory Agencies BACT for CO:

Source	Description	CO Limit	CO Limit (Corrected to 7% O_2)
PSCAA Order No. 10462 (December 2012)	New hot mix asphalt plant including: Astec Counter Flow, Double Barrel Dryer (400 TPH)	400.0 ppmvd (3% O_2)	310.6 ppmvd
PSCAA Order No. 10852 (April 2015)	New hot mix asphalt (HMA) plant (325 TPH)	400.0 ppmvd (3% O_2)	310.6 ppmvd
PSCAA Order No. 11175 (November 2016)	New hot mix asphalt (HMA) plant (300 TPH)	400.0 ppmvd (3% O_2)	310.6 ppmvd
PSCAA Order No. 11328 (January 2018)	Replacement of the drum dryer at an existing continuous/batch Asphalt Plant.	311.0 ppmvd (7% O_2)	310.6 ppmvd
PSCAA Order No. 11812 (December 2019)	Replacement of new 400 TPH drum mixer	311.0 ppmvd (7% O_2)	310.6 ppmvd
Southwest Clean Air Agency 16-3199ADP	Replacement of parallel flow dryer/mixer with counterflow dryer/mixer (400 TPH)	163 ppmvd (15% O_2)	384 ppmvd
San Joaquin Valley APCD Rule 4309	Asphalt/Concrete Plants	42 ppmv (19.0% O_2)	307 ppmvd
San Joaquin Valley APCD BACT Guideline 6.3.1 (8/23/18)	Asphaltic Concrete – Mix Plant	42 ppmv (19% O_2)	307 ppmvd
Bay Area Air Quality Management District BACT/TBACT Workbook	Hot Mix Asphalt, Drum and Batch Mix Facilities	133 ppmvd (15% O_2)	313 ppmvd

Analysis

The applicant has proposed a CO BACT limit of 400 ppm corrected to 3% oxygen. The CO limit in Order of Approval No. 11328 is 311.0 ppmvd corrected to 7% oxygen (equivalent to 400 ppmvd at 3% oxygen). This value is also relatively consistent with the CO limit for asphalt plant aggregate dryers in San Joaquin Valley APCD Rule 4309 and BACT Guideline 6.3.1. San Joaquin Valley APCD Rule 4309 sets a CO limit of 42 ppmv corrected to 19% oxygen; the equivalent to 307 ppmv corrected to 7% oxygen. The Bay Area Air Quality Management District lists BACT as 133 ppm corrected to 15% oxygen, which equates to 313 ppmvd at 7% oxygen. This Order of Approval will establish a BACT limit of 311.0 ppmvd corrected to 7% oxygen, consistent with Order of Approval No. 11328. The emission source test provided by the application showed the unit capable of achieving these limits with substantial margin.

Nitrogen Oxides

Similar Permits or Other Regulatory Agencies BACT for NO_x:

Source	Description	NO_x Limit	NO_x Limit (Corrected to 7% O_2)
PSCAA Order No. 10462 (December 2012)	New hot mix asphalt plant including: Astec Counter Flow, Double Barrel Dryer (400 TPH)	41.0 ppmvd (3% O_2)	31.8 ppmvd
PSCAA Order No. 10852 (April 2015)	New hot mix asphalt (HMA) plant (325 TPH)	41.0 ppmvd (3% O_2)	31.8 ppmvd
PSCAA Order No. 11175 (November 2016)	New hot mix asphalt (HMA) plant (300 TPH)	41.0 ppmvd (3% O_2)	31.8 ppmvd
PSCAA Order No. 11328 (January 2018)	Replacement of the drum dryer at an existing continuous/batch Asphalt Plant.	32.0 ppmvd (7% O_2)	32.0 ppmvd
PSCAA Order No. 11812 (December 2019)	Replacement of new 400 TPH drum mixer	26.0 ppmvd (7% O_2)	26.0 ppmvd
Southwest Clean Air Agency 16-3199ADP	Replacement of parallel flow dryer/mixer with counterflow dryer/mixer (400 TPH)	27 ppmvd (15% O_2)	64 ppmvd
South Coast AQMD BACT Guideline	Asphalt Batch Plant	36 ppmvd (3% O_2)	28 ppmvd
San Joaquin Valley APCD Rule 4309	Asphalt/Concrete Plants	4.3 ppmv (19.0% O_2)	31.5 ppmvd
San Joaquin Valley APCD BACT Guideline 6.3.1 (8/23/18)	Asphaltic Concrete – Mix Plant	3.5 ppmv (19% O_2)	25.6 ppmvd
Bay Area Air Quality Management District BACT/TBACT Workbook	Hot Mix Asphalt, Drum and Batch Mix Facilities	12 ppmvd (15% O_2)	28 ppmvd

Analysis

The Agency historically set a BACT limit of 41 ppm corrected to 3% oxygen for asphalt dryers. For Order of Approval No. 11328, the NO_x limit was set to 32 ppm corrected to 7% oxygen (equivalent to 41 ppm corrected to 3% oxygen) to be consistent with the oxygen correction for the particulate matter limit.

South Coast AQMD, San Joaquin Valley APCD, and BAAQMD establish BACT limits for NO_x emissions from asphalt dryers. In the table above, these were converted these to a 7% oxygen basis for the purpose of comparison. In August 2018, San Joaquin Valley APCD updated BACT guideline 6.3.1 and lists a NO_x limit of 3.5 ppmv at 19% oxygen. This is the most stringent limit listed in the table above and is equivalent to 25.6 ppmvd. Based on this value, the Order of Approval 11812 established a BACT limit of 26.0 ppmvd at 7% oxygen. For this permit, given that the change under review predates issuance of Order 11812, this Order of Approval is setting BACT for NOx at 32 ppmvd

corrected to 7% oxygen. The emission source test provided by the application showed the unit capable of achieving these limits with a small margin.

RACT for Asphaltic Cement Storage Tanks

Source	Description	Limit
PSCAA Order No. 10462 (December 2012)	New hot mix asphalt plant including: Astec Counter Flow, Double Barrel Dryer (400 TPH)	0% Opacity except on 15-minute period per day of 20% for line blowing
PSCAA Order No. 10852 (April 2015)	New hot mix asphalt (HMA) plant (325 TPH)	0% Opacity except on 15-minute period per day of 20% for line blowing
PSCAA Order No. 11175 (November 2016)	New hot mix asphalt (HMA) plant (300 TPH)	0% Opacity except on 15-minute period per day of 20% for line blowing

Analysis

In all the recent permits where new hot asphaltic cement storage tanks were installed the BACT limit was zero percent opacity with a daily exception of one fifteen-minute period of twenty percent opacity for line blowing. The replacement of the storage tank condensers is not subject to BACT but, due to WAC 173-400-114 they are subject to Reasonably Available Control Technology (RACT). The applicant has chosen a control technology equivalent to BACT which here also satisfies the requirement of RACT. This determination is for tanks storing standard hot mix asphalt oils. Cutback asphalt has not been proposed as an oil to be stored in the asphalt cement tanks. Cutback asphalt contains a greater proportion of lighted components, and passive condensers would not necessarily be RACT for storage of this material in a heated tank. Because RACT has not been proposed or reviewed for storage of cutback asphalt, a provision prohibiting storage of cutback asphalt in the heated tanks is included in the Order of Approval. Per the applicant, cutback asphalt is not currently in use and there is no proposal to use cutback asphalt.

BACT/RACT for Odor

Odor is an air contaminant under Washington's Clean Air Act. Additionally, air contaminants such as various VOCs or TAPs can cause odors. There is the potential for odor from the dryer, the asphaltic cement storage tank condensers, and the scavenger ducting from the truck loadout, the flight conveyor, and the two asphaltic concrete storage tanks. Odor from the asphaltic cement storage tank condensers is subject to RACT. Odor from the drum dryer (including its contribution to the baghouse emissions) is subject to BACT. Odor from the scavenger duct from the truck loadout, flight conveyor to the two asphaltic concrete storage silos is subject to RACT.

It had been recognized that odor is a potential emission from hot mix asphalt operations, and while Agency Regulation I, 9.11 applies to all sources in the Agency's jurisdiction, when applicable, odors are also regulated through the NOC program, such as though BACT. Regulation I, Section 9.11 limits nuisance odors to less than level 2 (as defined in the rule), if there is an affidavit from a person stating that the odor "unreasonably interfere[s] with their enjoyment of life and property". In some cases in the past, VOC limits (and to some extent opacity limits) were considered as a surrogate for odor emissions.

The number of examples available for review of other Agencies' odor BACT determinations was limited. The SWCAA did issue permit SWCAA 19-3335 on May 30, 2019, with some provisions to address odor. They include a facility-wide condition similar to Agency Regulation I, and facility monitoring, record keeping, and reporting of odor complaints and actions taken to mitigate the issue.

The Agency has adopted odor provisions on other Agency permits, from various industries such as cannabis production, composting, and wastewater treatment. In permits for these source categories, the Agency has set in place practices to monitor odors and take actions to limit odors including fenceline monitoring, record keeping and reporting. Several of these recent BACT determinations are summarized in the table below.

NOC Number	Source type	Odor BACT provisions
11946	Wastewater treatment	No detectable odor at or beyond fenceline. Weekly property line traverse, corrective action required if odor detected.
11486	Cannabis processing	No detectable odor outside facility. Weekly property line traverse, corrective action required if odor detected.
11707	Cannabis production	No detectable odor outside facility. Weekly property line traverse, corrective action required if odor detected.
12184	Natural organic reduction	No detectable odor outside facility. Weekly property line traverse, corrective action required if odor detected.
11935	Composting	No detectable odor at or beyond facility boundary. Daily property line traverse, corrective action required if odor detected.

BACT is often thought of an emission limit reflective of use of a particular control technology. However, BACT can also be considered operational practices and techniques that result in reduced emissions – including monitoring and recordkeeping activities.

The Agency has not identified any cost-effective odor control technology applicable to the hot mix asphalt industry equipment capable of meeting a limit of zero odor at the fence line. Regulation I,

Section 9.11 does apply which requires less than level 2 odors on private property. The Agency recognizes that both the condensers are RACT for odor in the case of the asphaltic cement storage tanks. The baghouse may control odor to the degree it controls odorous condensed particulate but, also has the potential to change the location of odor impacts (and dilute them) due to the dispersion effects of a raised stack. For example, the higher release point of the baghouse stack allows for greater dispersion (and hence dilution) but this also may move the location of high impacts from near the facility to higher geography or structures. The baghouse has the potential to move odor impacts from nearby public property (such as the Burke-Gilman trail) to farther away private property (such as the neighboring hillside to the north). Because of this the Agency is setting into place a complaint response program, fence line and near field odor monitoring, recordkeeping, reporting, and response provisions as BACT/RACT odor mitigation practices.

G. EMISSION ESTIMATES

Proposed Project Emissions

Actual Emissions

The facility has no record of reporting emissions since previously calculated emissions have been below the Agency's reporting thresholds. Therefore, calculations of actual emissions cannot rely on previously reported emissions. However, actual emissions are required to be less than the estimated potential emissions shown.

Potential Emissions

The permitted potential to emit ("PTE") calculations for the units that are included in this project are based on operating at 100% rated capacity and producing no more than 200,000 tons of asphaltic concrete per year. This production limit is included as a condition in the Order of Approval.

Microsoft Excel Worksheet

Source	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	SO_2 (tpy)	NO_x (tpy)	VOC (tpy)	CO (tpy)	Combined HAPs (tpy)	Maximum Individual HAP (tpy)
Stack Emissions								
Aggregate Dryer	3.7	3.5	0.5	10.0	0.8	59.2	0.8	0.3
HMA Silo Filling 1	--	--	--	--	1.2	--	0.0	0.0
Asphalt Tanks	0.2	0.24	--	--	0.0	0.0	0.0	0.0
Total Stack Emissions	*4.0*	*3.7*	*0.5*	*10.0*	*2.1*	*59.2*	*0. 8*	*0.3*

Emissions shown here includes the sources currently under review either as replacement equipment or as substantial alteration of existing equipment. Some emissions are shown as zero due to rounding small quantities of emissions.

- Aggregate dryer emissions include emissions from fuel combustion as well as particulate from the aggregate being dried. The aggregate dryer is a replacement and a new source. Emission include the baghouse, which was substantially altered, as part of this source.
- HMA Silo Filling includes emissions from volatile organic compounds, carbon monoxide, and particulate that is emitted from hot asphaltic concrete being loaded into the silos. This is includes as one of the sources that direct emissions to the substantially altered baghouse.
- The asphalt tanks include emissions from loading the two asphalt tanks with asphaltic cement (i.e. binder) and are drawn under review due to the replacement of the condensers used to limit tank volatile organic compound emissions.

Facility-wide Emissions

Actual Emissions

The facility has no record of reporting emissions so actual emission estimates are not known but, actual emissions are required to be less than the estimated potential emissions shown.

Reporting Source?

Yes, because potential emissions of Carbon Monoxide are greater than 25.0 tons per year (see Regulation I, Section 5.05(b)) the facility has the potential to be a reporting source.

PUGET SOUND
Clean Air Agency

Potential Emissions

Source	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	SO_2 (tpy)	NO_x (tpy)	VOC (tpy)	CO (tpy)	Combined HAPs (tpy)	Maximum Individual HAP (tpy)
Stack Emissions								
Aggregate Dryer	3.7	3.5	0.5	10.0	0.8	59.2	0.8	0.3
HMA Silo Filling [1]	--	--	--	--	1.2	--	0.0	0.0
Asphalt Tanks	0.2	0.24	--	--	0.0	0.0	0.0	0.0
Total Stack Emissions	*4.0*	*3.7*	*0.5*	*10.0*	*2.1*	*59.2*	*0. 8*	*0.3*
Fugitive Emissions								
Load-Out [2]	0.05	0.05	--	--	0.39	--	0.01	2.04E-03
Haul Roads	0.08	0.02	--	--	--	--	--	--
Storage Pile Drop Points	1.29	0.20	--	--	--	--	--	--
Storage Pile Wind Erosion	0.06	0.01	--	--	--	--	--	--
Total Fugitive Emissions	*1.49*	*0.28*	*--*	*--*	*0.39*	*--*	*0.01*	*2.04E-03*
Total	**5.5**	**4.0**	**0.5**	**10.0**	**2.5**	**59.2**	**0.8**	**0.3**
Title V Major Source Threshold	100	100	100	100	100	100	25	10
Below Title V Major Source Threshold?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Asphalt storage silos are controlled by the baghouse. Therefore, PM_{10} and $PM_{2.5}$ emissions from silo filling are not calculated separately.

Load-out PM_{10} and $PM_{2.5}$ emissions are conservatively assumed equivalent to load-out total PM emissions.

H. OPERATING PERMIT OR PSD

The Title V Air Operating Permit (AOP) program applicability for the entire source has been reviewed.

The facility is not a Title V air operating permit source because post project PTE remains below Title V applicability thresholds and criteria due to federally enforceable limits being implemented in this order. The source is considered a "**synthetic minor**". Emissions of Carbon Monoxide will be limited to the potential to emit defined by their operating limit of 200,000 TPY.

I. AMBIENT AND TOXICS IMPACT ANALYSIS

The estimated potential toxic air pollutant (TAP) emissions was calculated for operation at 100% rated capacity and 200,000 TPY production for each new or modified emission unit (*or based on limit in permit*). The table below includes estimated potential emissions of all TAP and compares those to the Small Quantity Emission Rates (SQER) in WAC 173-460-150.

Pollutant	CAS No.	HAP?	TAP?	Emission Factor[1] (lb/ton)	Pre-Project Dryer Emissions (tpy)	Post-Project Dryer Emissions (lb/hr)	Post-Project Dryer Emissions (tpy)	Emission Increase (tpy)	Averaging Period	SQER (lb/averaging period)	Project Emissions Increase [2] (lb/averaging period)	Modeling Required?
2-Methylnaphthalene	91-57-6	Yes - PAH	No	7.1E-05	6.30E-03	1.42E-02	7.10E-03	8.04E-04	--	--	--	--
Acenaphthene	83-32-9	Yes - PAH	No	9.0E-07	7.98E-05	1.80E-04	9.00E-05	1.02E-05	--	--	--	--
Acenaphthylene	208-96-8	Yes - PAH	No	5.8E-07	5.14E-05	1.16E-04	5.80E-05	6.57E-06	--	--	--	--
Acetaldehyde	75-07-0	Yes	Yes	3.2E-04	2.84E-02	0.06	0.03	3.62E-03	year	6.00E+01	7.25E+00	No
Anthracene	120-12-7	Yes - PAH	No	2.1E-07	1.86E-05	4.20E-05	2.10E-05	2.38E-06	--	--	--	--
Benzene	71-43-2	Yes	Yes	2.8E-04	2.48E-02	0.06	0.03	3.17E-03	year	2.10E+01	6.34E+00	No
Benzo(a)anthracene	56-55-3	Yes - PAH	Yes	4.6E-09	4.08E-07	9.20E-07	4.60E-07	5.21E-08	year	8.90E-01	1.04E-04	No
Benzo(a)pyrene	50-32-8	Yes - PAH	Yes	3.1E-10	2.75E-08	6.20E-08	3.10E-08	3.51E-09	year	1.60E-01	7.02E-06	No
Benzo(b)fluoranthene	205-99-2	Yes - PAH	Yes	9.4E-09	8.34E-07	1.88E-06	9.40E-07	1.06E-07	year	8.90E-01	2.13E-04	No
Benzo(g,h,i)perylene	191-24-2	Yes - PAH	No	5.0E-10	4.43E-08	1.00E-07	5.00E-08	5.66E-09	--	--	--	--
Benzo(k)fluoranthene	207-08-9	Yes - PAH	Yes	1.3E-08	1.15E-06	2.60E-06	1.30E-06	1.47E-07	year	8.90E-01	2.94E-04	No
Chrysene	218-01-9	Yes - PAH	Yes	3.8E-09	3.37E-07	7.60E-07	3.80E-07	4.30E-08	year	8.90E+00	8.61E-05	No
Dibenz(a,h)anthracene	53-70-3	Yes - PAH	Yes	9.5E-11	8.42E-09	1.90E-08	9.50E-09	1.08E-09	year	8.20E-02	2.15E-06	No
Ethyl Benzene	100-41-4	Yes	Yes	2.2E-03	1.95E-01	0.44	0.22	2.49E-02	year	6.50E+01	4.98E+01	No
Fluoranthene	206-44-0	Yes - PAH	No	1.6E-07	1.42E-05	3.20E-05	1.60E-05	1.81E-06	--	--	--	--
Fluorene	86-73-7	Yes - PAH	No	1.6E-06	1.42E-04	3.20E-04	1.60E-04	1.81E-05	--	--	--	--
Formaldehyde	50-00-0	Yes	Yes	7.4E-04	6.56E-02	0.15	0.07	8.38E-03	year	2.70E+01	1.68E+01	No
Indeno(1,2,3-cd)pyrene	193-39-5	Yes - PAH	Yes	3.0E-10	2.66E-08	6.00E-08	3.00E-08	3.40E-09	year	8.90E-01	6.80E-06	No
Naphthalene	91-20-3	Yes - PAH	Yes	3.6E-05	3.19E-03	7.20E-03	3.60E-03	4.08E-04	year	4.80E+00	8.15E-01	No
Phenanthrene	85-01-8	Yes - PAH	No	2.6E-06	2.31E-04	5.20E-04	2.60E-04	2.94E-05	--	--	--	--
Pyrene	129-00-0	Yes - PAH	No	6.2E-08	5.50E-06	1.24E-05	6.20E-06	7.02E-07	--	--	--	--
Quinone	106-51-4	Yes	No	2.7E-04	2.39E-02	0.05	0.03	3.06E-03	--	--	--	--
Toluene	108-88-3	Yes	Yes	1.0E-03	8.87E-02	0.20	0.10	1.13E-02	24-hr	3.70E+02	0	No
Xylene, mixed or all isomers	1330-20-7	Yes	Yes	2.7E-03	2.39E-01	0.54	0.27	3.06E-02	24-hr	1.60E+01	0	No
Arsenic	7440-38-2	Yes	Yes	4.6E-07	4.08E-05	9.20E-05	4.60E-05	5.21E-06	year	4.90E-02	1.04E-02	No
Barium	7440-39-3	No	No	1.5E-06	1.33E-04	3.00E-04	1.50E-04	1.70E-05	--	--	--	--
Beryllium	7440-41-7	Yes	Yes	1.5E-07	1.33E-05	3.00E-05	1.50E-05	1.70E-06	year	6.80E-02	3.40E-03	No
Cadmium	7440-43-9	Yes	Yes	6.1E-07	5.41E-05	1.22E-04	6.10E-05	6.91E-06	year	3.90E-02	1.38E-02	No
Chromium	7440-47-3	Yes	Yes	5.7E-07	5.05E-05	1.14E-04	5.70E-05	6.46E-06	24-hr	3.70E-01	0	No
Hexavalent Chromium	18540-29-9	Yes	Yes	4.8E-08	4.26E-06	9.60E-06	4.80E-06	5.44E-07	year	6.50E-04	1.09E-03	Yes
Copper	7440-50-8	No	Yes	2.8E-06	2.48E-04	5.60E-04	2.80E-04	3.17E-05	1-hr	1.90E-01	0	No
Lead	7439-92-1	Yes	Yes	8.9E-07	7.89E-05	1.78E-04	8.90E-05	1.01E-05	year	1.40E+01	2.02E-02	No
Manganese	7439-96-5	Yes	Yes	6.9E-06	6.12E-04	1.38E-03	6.90E-04	7.82E-05	24-hr	2.20E-02	0	No
Mercury	7439-97-6	Yes	Yes	4.1E-07	3.64E-05	8.20E-05	4.10E-05	4.64E-06	24-hr	2.20E-03	0	No
Nickel	7440-02-0	Yes	Yes	3.0E-06	2.66E-04	6.00E-04	3.00E-04	3.40E-05	year	6.20E-01	6.80E-02	No
Selenium	7782-49-2	Yes	Yes	4.9E-07	4.35E-05	9.80E-05	4.90E-05	5.55E-06	24-hr	1.50E+00	0	No
Zinc	7440-66-6	No	No	6.8E-06	6.03E-04	1.36E-03	6.80E-04	7.70E-05	--	--	--	--
				Total HAP:	**0.68**	**1.53**	**0.76**	**0.09**				
SO_2	7446-09-5	No	Yes	4.6E-03	4.08E-01	9.20E-01	4.60E-01	5.21E-02	1-hr	1.20E+00	0	No
NO_x	10102-44-0	No	Yes	--	1.00E+01	4.57E+00	1.00E+01	0.00E+00	1-hr	8.70E-01	0	No
CO	630-08-0	No	Yes	--	5.92E+01	2.71E+01	5.92E+01	0.00E+00	1-hr	4.30E+01	0	No

[1] Speciated emission factors for emissions from the dryer are obtained from U.S. EPA, Hot Mix Asphalt Plants, AP-42 Section 11.1, March 2004, Tables 11.1-9 and 11.1-11. Emission factors for natural gas-fired dryer with fabric filter for batch hot mix asphalt plants are used. Emissions of criteria pollutants that are also TAPs are based on the calculation shown in Table 2.

[2] For TAPs with short-term averaging periods (i.e., 1-hour and 24-hour), there is no increase in emissions from the project.

Of the emitted TAPs, only hexavalent chromium was emitted at rates greater than the SQER, so the Agency required dispersion modeling to demonstrate estimated impacts less than the Acceptable Source Impact Levels (ASILs) listed in WAC 173-460-150. The modeled hexavalent chromium impact demonstrated concentrations an order of magnitude less than the ASIL.

Pollutant	Averaging Period	Modeled Concentration ($\mu g/m^3$)	ASIL ($\mu g/m^3$)	Exceeds ASIL?
Chromium (VI)	Annual	1.01E-07	4.00E-06	No

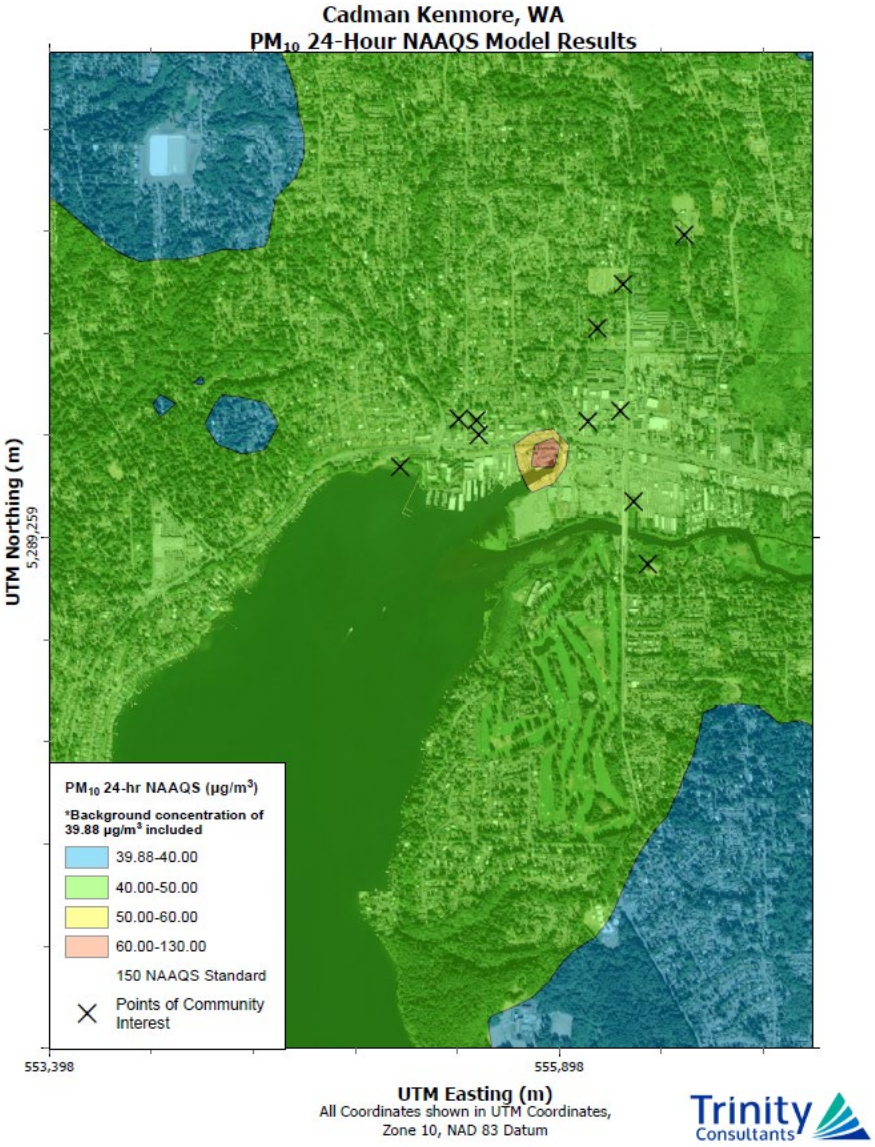
In addition to dispersion modeling for TAPs, the Agency also required dispersion modeling to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) for particulate, NOx, and CO. The NAAQS are national air quality standards designed to protect public health and the environment. Dispersion modeling was conducted that showed that ambient concentrations resulting from the facility emissions should not exceed the NAAQS. In addition, the Agency requested not just the modeled high concentrations but asked for the maximum estimated impacts at a variety of sensitive locations within the community. The results of the dispersion model are shown below. The details of the modeling analysis are included in the attached report. The modeling was conducted at the established BACT limits with one exception. For particulate matter the modeling was conducted at the tested concentration increased by thirty percent to allow for variability in test results. As such the particulate matter limits set in the permit conditions reflect the rate at which particulate matter emissions were modeled, which assures protection of the NAAQS. As seen in the table below, no applicable NAAQS are exceeded.

Parameter	Test Result Average	Emission Limit
Total PM gr/dscf at 7 percent oxygen	0.0089	0.0116
Filterable PM gr/dscf at 7 percent oxygen	0.002	0.0029

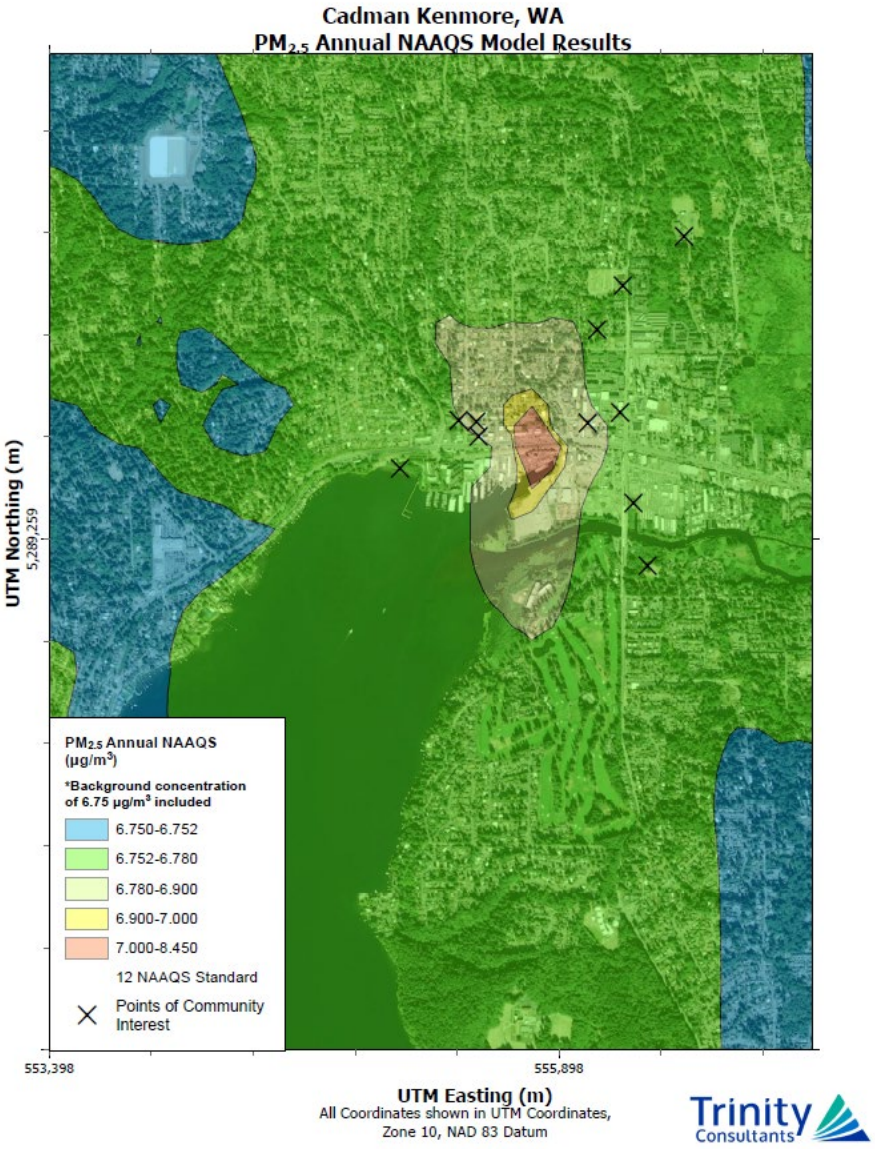
Cadman Kenmore Modeling Report - NA

Pollutant	Averaging Period	Design Concentration	Location		Concentration (µg/m³)			Exceeds NAAQS?
			UTM Easting (m)	UTM Northing (m)	Modeled	Total Concentration	NAAQS	
PM_{10}	24-hr	H6H	555,820.8	5,289,634.6	90.0	129.9	150	No
$PM_{2.5}$	Annual	NA	555,769.7	5,289,690.5	1.7	8.5	12	No
	24-hr	H8H	555,769.7	5,289,690.5	12.5	33.7	35	No
NO_2	Annual	NA	555,769.7	5,289,690.5	2.9	29.6	100	No
	1-hr	H8H	555,769.7	5,289,690.5	91.1	183.7	188	No
CO	8-hr	H2H	555,769.7	5,289,690.5	519.7	2042.8	10,000	No
	1-hr	H2H	555,770.2	5,289,661.4	1935.5	4363.3	40,000	No

Location	UTM Easting (m)	UTM Northing (m)	Modeled Maximum Concentration (µg/m³)						
			PM_{10}	$PM_{2.5}$		NO_2		CO	
			24-hr	Annual	24-hr	Annual	1-hr	8-hr	1-hr
Lakeside School Boathouse	556,260.68	5,289,435.17	0.69	0.01	0.20	0.02	0.94	3.68	11.93
Kenmore Library	556,036.73	5,289,824.08	2.48	0.04	0.84	0.09	5.06	14.38	115
Lake Forest Park Cooperative Preschool	555,402.49	5,289,839.82	2.04	0.03	0.90	0.05	4.17	14.23	34.47
Kenmore Elementary	556,508.24	5,290,739.88	0.32	4.12E-03	0.09	7.98E-03	0.93	1.48	8.96
Log Boom Park	555,116.54	5,289,605.05	0.80	4.99E-03	0.25	5.64E-03	0.65	1.70	7.30
Rhododendron Park	556,331.01	5,289,129.96	0.25	7.23E-03	0.14	1.24E-02	0.95	4.05	10.50
Kenmore Town Square	556,195.21	5,289,874.64	1.21	0.02	0.41	0.05	2.13	6.77	49.66
Bethany Bible Church	555,502.06	5,289,758.64	2.57	0.03	1.14	0.06	5.13	23.75	47.17
Church of the Redeemer	555,489.23	5,289,830.94	2.40	0.04	1.11	0.09	6.70	19.55	61.75
Northlake Lutheran Church	556,081.58	5,290,281.53	0.72	0.02	0.37	0.03	3.52	11.04	88.25
Cedar Park Northshore Assembly of God	556,209.24	5,290,495.83	0.51	0.01	0.21	0.02	1.88	4.52	36.10



* Points of Community Interest, as defined by PSCAA, are found in Table 2-1. Sensitive Receptors



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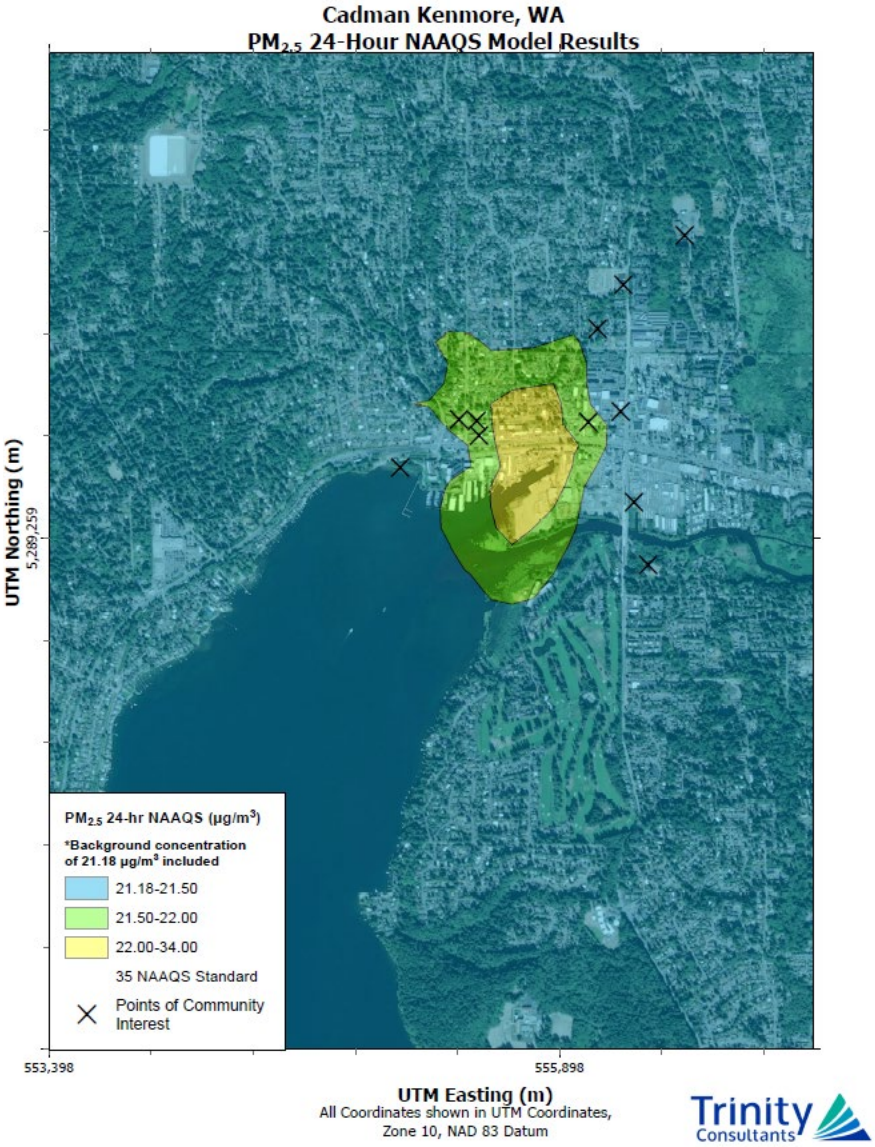

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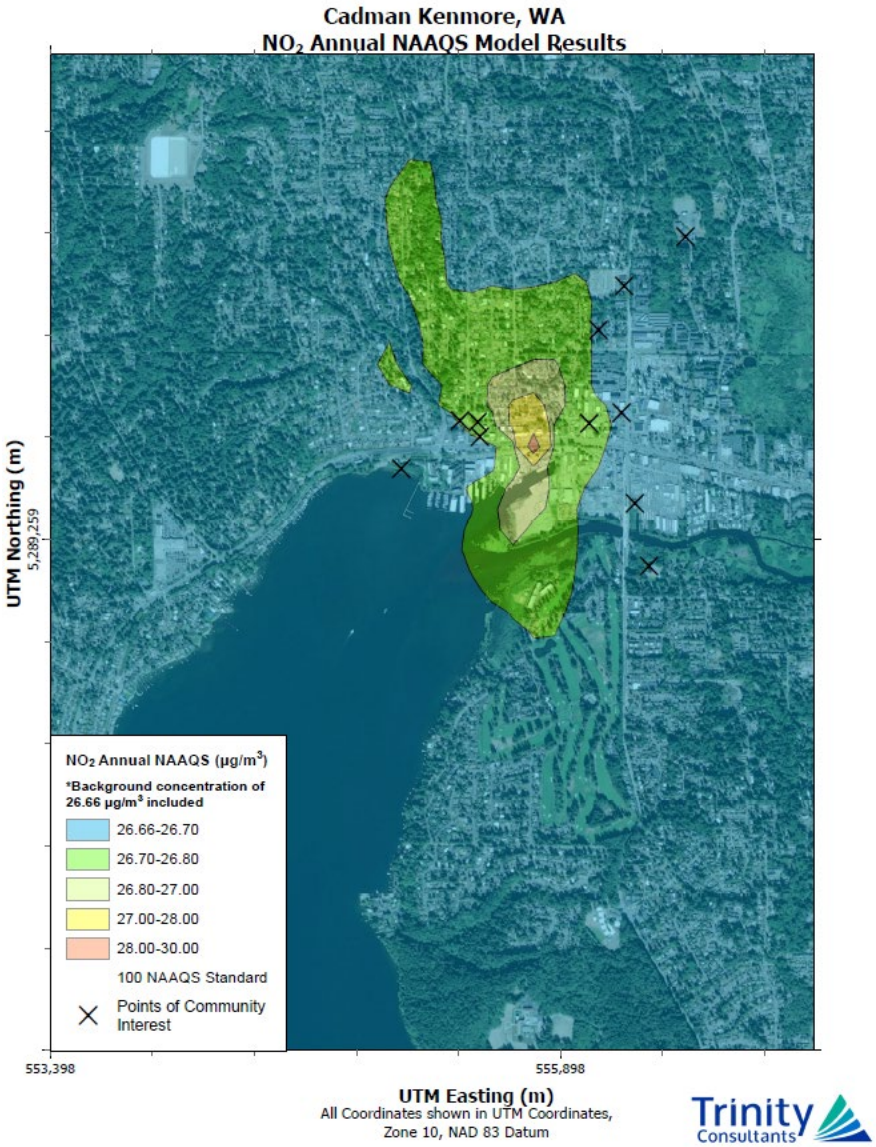

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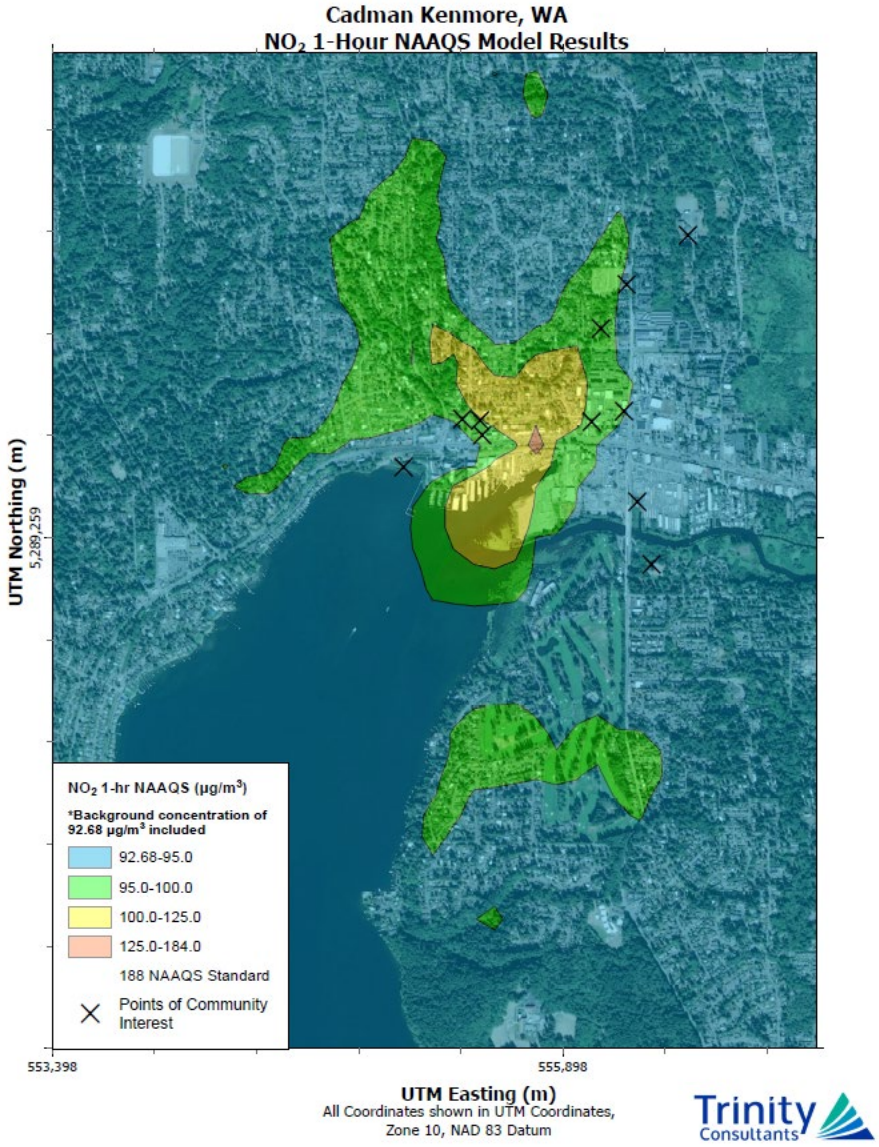

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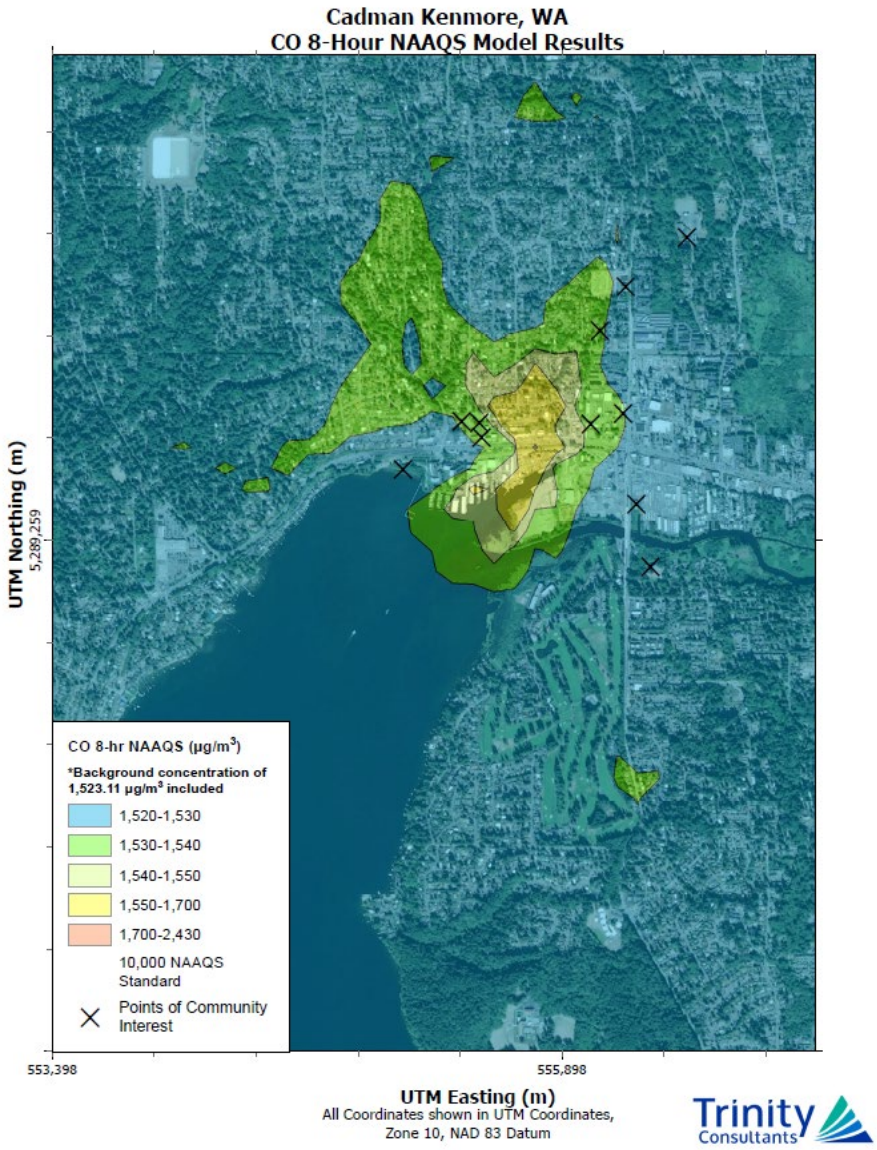

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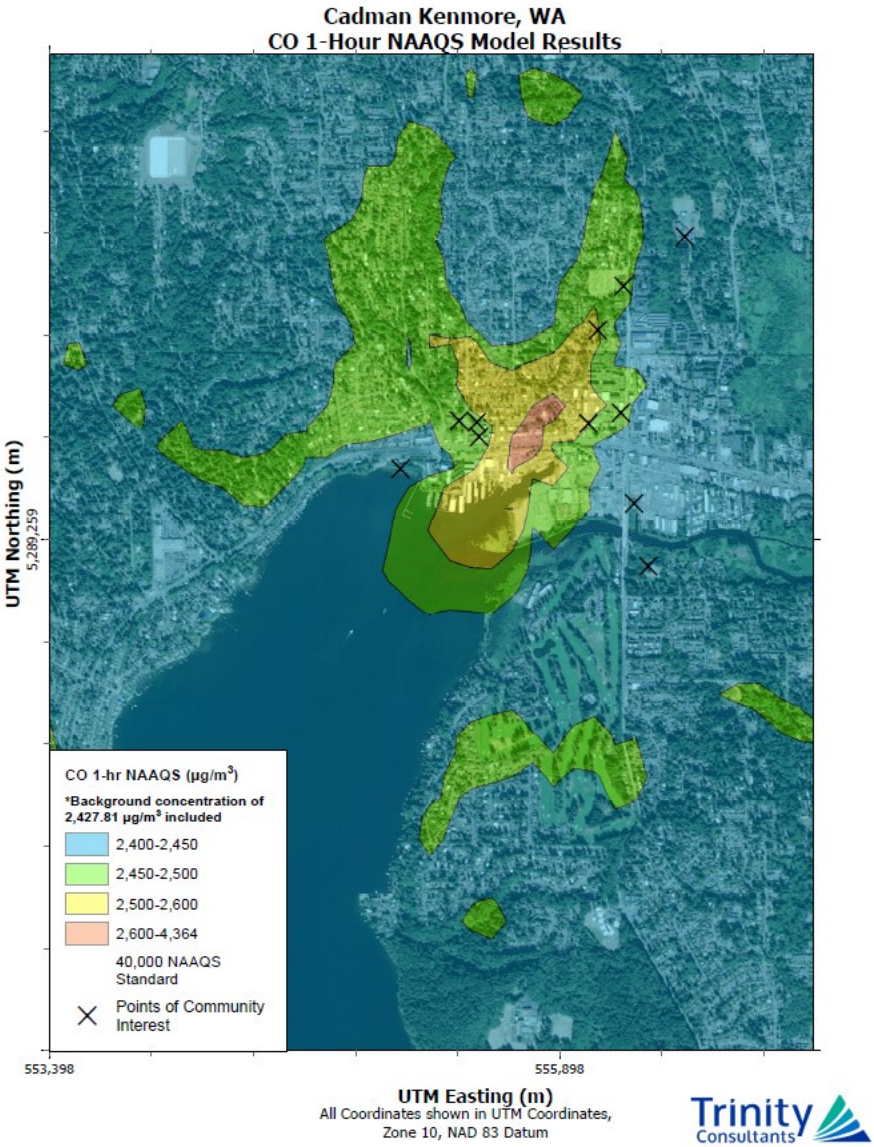

* Points of Community Interest, as defined by PSCAA, are found in Table 2-1. Sensitive Receptors

J. APPLICABLE RULES & REGULATIONS

Puget Sound Clean Air Agency Regulations

SECTION 5.05 (c): The owner or operator of a registered source shall develop and implement an operation and maintenance plan to ensure continuous compliance with Regulations I, II, and III. A copy of the plan shall be filed with the Control Officer upon request. The plan shall reflect good industrial practice and shall include, but not be limited to, the following:
(1) Periodic inspection of all equipment and control equipment;
(2) Monitoring and recording of equipment and control equipment performance;
(3) Prompt repair of any defective equipment or control equipment;

(4) Procedures for startup, shut down, and normal operation;
(5) The control measures to be employed to ensure compliance with Section 9.15 of this regulation; and
(6) A record of all actions required by the plan.
The plan shall be reviewed by the source owner or operator at least annually and updated to reflect any changes in good industrial practice.

SECTION 6.09: Within 30 days of completion of the installation or modification of a stationary source subject to the provisions of Article 6 of this regulation, the owner or operator or applicant shall file a Notice of Completion with the Agency. Each Notice of Completion shall be submitted on a form provided by the Agency and shall specify the date upon which operation of the stationary source has commenced or will commence.

SECTION 9.03: (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:
(1) Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or
(2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).
(b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.
(c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.

SECTION 9.09: General Particulate Matter (PM) Standard. It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:
Equipment Used in a Manufacturing Process: 0.05 gr/dscf

SECTION 9.11: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

SECTION 9.13: It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

SECTION 9.15: It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:
(1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
(2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;
(3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle

undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
(4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.

SECTION 9.16(c): General Requirements for Indoor Spray-Coating Operations. It shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating inside a structure, or spray-coating of any motor vehicles or motor vehicle components, unless all of the following requirements are met:
(1) Spray-coating is conducted inside an enclosed spray area;
(2) The enclosed spray area employs either properly seated paint arresters, or water-wash curtains with a continuous water curtain to control the overspray; and
(3) All emissions from the spray-coating operation are vented to the atmosphere through an unobstructed vertical exhaust vent.

REGULATION I, SECTION 9.20(a): It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.

Washington State Administrative Code

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

WAC 173-400-040(4): Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

(a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

WAC173-400-111(7): Construction limitations.

(a) Approval to construct or modify a stationary source becomes invalid if construction is not commenced within eighteen months after receipt of the approval, if construction is discontinued for a period of eighteen months or more, or if construction is not completed within a reasonable time. The permitting authority may extend the eighteen-month period upon a satisfactory showing by the permittee that an extension is justified.

Federal

40 CFR 60 Subpart A and Subpart I apply to this facility.

Subpart A:

60.4(b) Delegation of authority to PSCAA to enforce NSPS.

60.7(a)(1, 3, 4) Notification & Record keeping.

60.7(b) Maintain records including malfunctions.

60.8 Requirements for source testing. (Stack test has already been completed for the affected facility.)

60.11(a, b, c, e) Compliance requirements for PM_{10} & opacity. Note: requires that Method 9 tests include three one-hour observations conducted concurrently with the Method 5 test runs.

60.11(d) Operate consistent with good engineering control practices.

Subpart I:

60.90 Defines the applicable sources

60.91 Contains definitions

60.92 Has the PM emissions standard of 0.04 gr/dscf measured by EPA method 5 which is only the "Front-Half". 20 percent opacity limit.

60.93 Test methods include collecting a min of 31.8 dscf of sample for PM, and EPA Method 9 for opacity. (Stack test has already been completed for the affected facility.)

K. PUBLIC NOTICE

This project meets the criteria for mandatory public notice under WAC 173-400-171(3). Criteria requiring public notice includes, but is not limited to, a project that exceeds emission threshold rates as defined in WAC 173-400-030 (e.g. 40 tpy NOx, VOC, or SO_2, 100 tpy CO, 15 tpy PM_{10}, 10 tpy $PM_{2.5}$, 0.6 tpy lead), includes a WAC 173-400-091 synthetic minor limit, has a toxic air pollutant emission increase above the acceptable source impact level in WAC 173-460-150, or has significant public interest. A notice of application was posted on the Agency's website for 15 days. No requests or responses were received. A copy of the website posting is below:

PUGET SOUND
Clean Air Agency

New Construction Projects

Company	Address	Project Description	Date Posted	Contact Engineer
NC 11861 Cadman Materials, Inc. (Cadman)	6431 NE 175th St, Kenmore, WA 98028	Equipment replacement at an existing hot mix asphalt plant including: dryer shell replacement; dryer baghouse alterations; replacement of asphalt storage tank condensers; and routing of truck loading emissions to baghouse.	11/26/19	Brian Renninger

The Agency has determined that there could be significant public interest in this project; therefore, the project meets the criteria for mandatory public notice under WAC 173-400-171(3)(n). In addition, the permit conditions establish limitations on the sources potential to emit which also requires a mandatory public notice under WAC 173-400-171(3)(k).

A 60-day public comment period for the draft Order of Approval and preliminary Determination of Nonsignificance was held March 3 through May 2, 2022. Notices that the draft materials were open to comment were published in the Seattle Times and the Daily Journal of Commerce on March 3. The Agency posted the application, the draft worksheet, the draft Order of Approval, the DNS and other relevant materials on the Agency's website during the comment period. In addition, the Agency held an online public hearing via Zoom on April 18, 2022, from 4 pm to 6 pm Pacific Time.

In addition, a public comment period for the Determination of Nonsignificance was held concurrently with the comment period for the draft Order of Approval.

Comments and responses for the public notice period are in Appendix A to this worksheet.

L. RECOMMENDED APPROVAL CONDITIONS

Standard Conditions:

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Specific Conditions:
NEW SOURCE PERFORMANCE STANDARDS

3. This asphalt facility is subject to the federal Standards of Performance for Asphalt Concrete Plants under 40 CFR Part 60, Subpart I, and General Provisions under 40 CFR Part 60, Subpart A, as required by Conditions 4, 5, and 6 of this Order of Approval.

4. The owner or operator subject to the provisions of this subpart shall not discharge or cause the discharge into the atmosphere from any affected facility any gases which:

   a) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).
   b) Exhibit 20 percent opacity, or greater.

5. The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a monitoring device is inoperative.

6. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

EMISSION LIMITS

7. Total particulate matter emissions from the plant exhaust stack shall not exceed 0.0116 gr/dscf (corrected to 7% O_2) as measured by U.S. EPA Method 5 as modified by Puget Sound Clean Air Agency Board Resolution 540 dated August 11, 1983.

8. Filterable particulate matter emissions from the plant exhaust stack shall not exceed 0.0029 gr/dscf (corrected to 7% O_2) as measured by U.S. EPA Method 5 as modified by Puget Sound Clean Air Agency Board Resolution 540 dated August 11, 1983.

9. Opacity from the plant exhaust stack shall not exceed 5% opacity for a period or periods aggregating more than 3 minutes during any one hour as measured by WDOE Method 9A.

10. Emissions of Non-Methane/Non-Ethane VOC (NMNEVOC) shall not exceed 0.032 lb NMNEVOC per ton of hot mixed asphaltic concrete produced. Compliance with this limit shall be determined by the average of three 60-minute test runs performed in accordance with Section 3.07 of PSCAA Regulation 1 and using EPA reference methods 1, 3A, 4, and 25A (using either an FID with a methane "cutter", OR using EPA Method 320 or EPA Method 18 to analyze for methane and ethane, and subtracting the methane and ethane results from the total VOC measured by the FID analyzer) from Appendix A of 40 CFR Part 60. NMNEVOC shall be expressed as propane. Other equivalent test methods may be used with prior written approval of the Agency.

11. Emissions of carbon monoxide shall not exceed 311.0 ppmvd (corrected to 7% O2) as determined by the average of three 60-minute test runs performed in accordance with Section 3.07 of PSCAA Regulation I and using USEPA reference methods 1, 3A, 4, and 10 from Appendix A of 40 CFR Part 60.

12. Emissions of oxides of nitrogen shall not exceed 32.0 ppmvd (corrected to 7% O2) as determined by the average of three 60-minute test runs performed in accordance with Section 3.07 of PSCAA Regulation I using USEPA reference methods 1, 3A, 4, and 7E from Appendix A of 40 CFR Part 60.

13. Emissions from the asphalt cement storage tanks shall not exceed 0% opacity as determined by WDOE Method 9A, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. Record the date and time period of any asphalt transfer line blowing. During asphalt transfer line blowing the storage tanks shall not exceed 20% opacity for a period or periods aggregating more than 3 minutes during any one hour as measured by WDOE Method 9A.

FACILITY-WIDE EMISSION LIMIT

14. Facility-wide emissions of carbon monoxide shall not exceed 59.2 tons during any 12 consecutive months after the date of this Order.

15. Within 30 days of the end of each month, the owner or operator shall calculate the facility-wide carbon monoxide emissions for the previous 12 months using the monthly natural gas usage and either the BACT emission limit in Condition 11 or the results of the most recent carbon monoxide emission test that shows compliance with the BACT emission limit in Condition 11. For the purposes of this calculation, the BACT limit in Condition 11 or the source test results shall be converted to into terms of pounds of carbon monoxide per million Btu of fuel used using EPA Method 19.

16. The owner or operator shall notify the Puget Sound Clean Air Agency in writing, within 30 days after the end of each 12-month period if, during that period, emissions of CO exceed 55 tons. The report shall include emissions data for the time period for which these thresholds were exceeded.

17. By June 30th of each calendar year, the owner or operator must report to PSCAA the total emissions of carbon monoxide for the previous calendar year. The owner or operator must also report the emissions of any pollutant that exceeded the thresholds in PSCAA Regulation I, Section 5.05(b) for the previous calendar year. These emission reports must be submitted via email to EmissionReporting@pscleanair.gov or in the most current method in which PSCAA is receiving electronic submittal.

PRODUCTION LIMIT

18. The owner or operator shall record and limit the total production of asphalt to no more than 200,000 tons for any 12 consecutive months.

19. A notification of a violation of Condition 18 shall be sent to Puget Sound Clean Air Agency within 30 days following any month when the 12 consecutive month rolling total exceeds 200,000 tons per year of asphalt production.

20. The two hot oil (asphaltic cement) tanks shall not be used to store asphalt that has been blended with more than 7% petroleum distillates by weight. Records shall be kept of the dates any materials are loaded in the tanks, the amount loaded, and the type of material loaded.

OPERATING REQUIREMENTS

21. The dryer baghouse shall be equipped with a gauge measuring the pressure drop across the baghouse. The pressure gauge shall be in operation whenever the baghouse is in operation. The

pressure gauge shall be marked with the acceptable pressure drop range. The maximum acceptable pressure drop shall be determined from manufacturer specifications for the bags used in the baghouse. The minimum acceptable pressure drop shall be determined from manufacturer specifications for the bags used in the baghouse. The pressure drop observed during the most recent compliance source test shall fall within the defined acceptable range of pressure drop. The acceptable range and the basis for the range shall be included in the facility Operations and Maintenance plan required by Agency Regulation I, Section 5.05(c)

SOURCE TESTING

22. The owner or operator shall test emissions for compliance with Conditions 7 through 13 of this Order within 90 days after issuance of this permit. The owner or operator shall also test emissions for compliance with Conditions 7, 8, 10, 11, and 12 at least once every 36 months. Additionally, the owner or operator shall test emissions for compliance with Conditions 9 and 13 at least once every 12 months. The owner or operator shall submit a compliance test plan with the test notification submitted under Regulation I, Section 3.07(b) at least 21 days prior to each compliance test. The test plan shall detail the test methods used for each pollutant, the planned production rate during the test, the operational data that will be collected during the test, and any other relevant information about the test.

23. During each test to demonstrate compliance with Condition 7, 8, 10, 11, or 12, the owner or operator shall produce asphaltic concrete at or near the maximum hourly production rate of asphaltic concrete achieved in the three years prior to the test. If this production rate cannot be achieved during the test, the owner or operator shall explain in the test plan and test report why the test conditions should be considered representative of normal operation.

24. During the emission tests required by Condition 22, the following operational data shall be collected during each test run and reported in the source test report:

    a) standard cubic feet of fuel combusted;

    b) aggregate moisture percentage (as measured by the Quality Control lab for a representative sample taken the day of the test);

    c) asphalt cement content percentage;

    d) baghouse pressure drop;

    e) baghouse fan speed (as a percentage of full speed);

    f) baghouse pulse cycle time;

    g) flue gas damper setting (as a percentage of maximum opening); and

    h) product specification produced during the run, a copy of the specification, and maximum temperature allowed by the specification.

MONITORING

25. When operating, the owner or operator shall monitor and record the following information:
    a) one daily pressure drop across the baghouse;
    b) one daily inspection for visible emissions and particulate fallout for the baghouse;
    c) the hourly weight of asphalt produced;
    d) annual (12 consecutive months rolling total) asphalt production;
    e) monthly fuel use;
    f) the product specification produced and the hour it was produced; and
    g) the time (in hours) the drum dryer operated.

26. If the Control Officer or a duly authorized representative communicates to the owner or operator that he or she has detected an odor at level 2 or greater as defined in Agency's Regulation I, Section 9.11(b), beyond the property line that the Agency has documented to be attributable to or partially attributable to emissions from drum dryer, baghouse, or asphalt cement tanks, the owner or operator must comply with Condition 27. For the purposes of this condition documentation to be communicated includes: the nature of the odor, the assessed level of the odor (using the odor scale in Agency Regulation I, Section 9.11), the location of the detected odor, and the basis for the odors attribution to the listed equipment type(s).

27. If required by Condition 26, the owner or operator must immediately implement an odor response program that includes the following:

    a. Upon receipt of a communication from the Control Officer or a duly authorized representative regarding an odor per Condition 26, initiate an investigation of the reported odor incident.
    b. Take corrective action to reduce odors beyond the property line to Level 1 or lower (see Agency Regulation I, Section 9.11(b)) as soon as possible, but within 24 hours after receipt of the complaint.
    c. Develop a report for each investigation that results from a communication by an Agency representative. The report must include the following:
        i. The date and time of when the communication was received.
        ii. The date and time of when the investigation was initiated.
        iii. Location of communicated odor and area investigated (including information provided by the Agency and any other areas the investigated identified).
        iv. The weather conditions during the event and investigation.
        v. Description of whether the odor observation communicated was confirmed, steps taken during the investigation.
        vi. Actions taken in response to the complaint.
        vii. The date and time odors are no longer detected at the location of the complaint and any other odorous area identified during the investigation.

28. The owner or operator shall monitor for detectable odors that are attributable to emissions from drum dryer, baghouse, or asphalt cement tanks once each calendar week during dryer operation. No odor monitoring is required during calendar weeks the dryer does not operate. Locations to be monitored include accessible downwind segments: along the Burke-Gilman Trail parallel with the facility property line; between 62nd and 65th/66th avenues NE on NE Bothell Highway, 181st St, 182nd St, 183rd St, and 184th St; and the Kenmore Library parking lot. For at least one hour immediately prior to monitoring, the person performing the monitoring must remain in an atmosphere free of facility-related odors. Records of the monitoring shall be kept of the date, the time, the monitoring location, the wind direction at the time of the observation, and whether or not any odors were detected and, if so, the character of the odor. If any odors attributable to emissions from drum dryer, baghouse, or asphalt cement tanks of level 2 or greater are detected during monitoring or at any other time, the owner or operator shall immediately initiate corrective action to reduce the odor to Level 1 or less (as defined in Agency Regulation I, Section 9.11(b)) and record the nature of any corrective actions taken.

COMPLAINTS

29. The owner or operator shall establish a complaint response program as part of the O&M Plan. The program shall include a complaint phone line, criteria, and methods for establishing whether Cadman Materials, Inc. is the source of emissions related to the complaint, and a format for communicating results of investigation and advising complainants of Cadman Materials, Inc. corrective actions.

    a) The owner or operator shall record and investigate complaints received regarding air quality as soon as possible, but no later than one working day after receipt.

    b) The owner or operator shall correct any problems identified by these complaint investigations within 24 hours of identification or cease operation of the equipment until the problem is resolved;

    c) Records of all complaints received regarding air quality issues shall include information regarding date and time of complaint; name and address of complainant (if known); nature of the complaint; investigation efforts completed and basis for conclusion reached; and date, time, and nature of any corrective action taken.

RECORDS

30. The owner or operator shall maintain records required by this Order of Approval, as well as the records identified in the Operation and Maintenance Plan required by Regulation I, Section 5.05, for two years and make them available to Puget Sound Clean Air Agency personnel upon request.

31. Upon issuance of this Order of Approval, this Order supersedes and cancels Order of Approval No. 939 dated April 4, 1973, Order of Approval 1938 issued July 16,1998, and Order of Approval 3536 issued January 20, 2006.

M. CORRESPONDENCE AND SUPPORTING DOCUMENTS

N. REVIEWS

Reviews	Name	Date
Engineer:	Brian Renninger	2/28/2022
Inspector:	Melissa McAfee	1/28/2022
Second Review:	John Dawson	2/8/2022 2/28/2022
Applicant Name:	Christy McDonough	Comments received 2/23/2022

Appendix A, Response to Comments

Puget Sound Clean Air Agency (the Agency) would like to thank the government agencies, business and community organizations, and individuals for taking the time to review Proposed Order of Approval No. 11861, attend the April 18, 2022, public hearing, and submit comments to the Agency on the Proposed Order of Approval (OA). The Agency received approximately 60 comments (verbally and orally which are treated the same by the Agency.) This Appendix to the worksheet for Order of Approval No. 11861 contains comments on the Determination of Nonsignificance (DNS), the Proposed Order of Approval and Agency responses to the comments received by the Agency within the comment period.

The comments submitted relate generally to two basic categories:

> **Notice of Construction ("NOC") Order of Approval ("OA"):** These comments are related to the Proposed Order of Approval, the Engineering Worksheet, the related emission factors and calculations, and the enforcement of the OA; and
>
> **SEPA:** These comments are related to the SEPA work and DNS issued by the Agency.

The Agency reviewed all comments received and has generally responded to all comments below. In addition, based on the Agency's review of all submitted comments, the Agency has made some adjustments to the NOC worksheet for this proposed action, added one condition, and modified the language of a few conditions.

Some commenters had questions or requested more information about the Notice of Construction (NOC) process.

Under Agency Regulation I, Article 6, and the sections of WAC 173-400 that are adopted by the Agency, new (or modified) sources of air pollution, and substantial alterations of air pollution control equipment, require the submittal of a Notice of Construction (NOC) application by the source and the issuance of an Order of Approval by the Agency. As discussed in item 2, below, this NOC application was the result of a Notice of Violation issued by the Agency for several pieces of equipment that had been modified or altered without the submittal of an NOC application. Only this modified or altered equipment is subject to review in this project. Other equipment either predates the NOC program or is covered by an exemption in Regulation I, Section 6.03, or by previously issued Orders of Approval.

The Agency determines Best Available Control Technology (BACT) for new sources (which by definition also includes modified sources) through the NOC process. BACT is defined in WAC 173-400-030. The Agency also determines Reasonably Available Control Technology (RACT) for substantially altered pollution control equipment through the NOC process. RACT is also defined in WAC 173-400-030. BACT and RACT can be the same in some circumstances.

The Agency also determines BACT for toxic air pollutants (TAPs), or tBACT, pursuant to Agency Regulation III. In Washington, tBACT is BACT for TAPs. The list of TAPs is given in WAC 173-460. For any TAP that is emitted at a rate greater than the Small Quantity Emissions Rate (SQER) as listed in WAC 173-460-150, the Agency requires dispersion modeling to assure that ambient concentrations of TAPs from the project do need exceed any Acceptable Source Impact Level (ASIL), also as listed in WAC 173-460-150. The Agency may also require modeling to demonstrate that emissions from a project will not cause an exceedance of the National Ambient Air Quality Standards (NAAQS) for the six "criteria" pollutants (ozone, particulate matter, carbon monoxide, lead, sulfur dioxide, nitrogen dioxide) for which US EPA has established a NAAQS. As stated above, no NAAQS are exceeded by this proposed action.

Consistent with the above, the Agency has issued a NOC Order of Approval that establishes conditions for the approved emission units, including Condition 1 that states: "Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency". Condition 1 requires Cadman to install and operate consistent with all plans and specifications on file with the Agency and is a condition commonly used by air authorities in Washington to ensure facilities operate consistently with issued orders of approval.

This project is also subject to review under the State Environmental Policy Act, or SEPA. If the Agency determines that the project under review will not have probable significant adverse environmental impacts, then it issues a Determination of Nonsignificance (DNS). Only the equipment that is subject to NOC review in this project is subject to SEPA review. This SEPA review does not cover the plant as a whole.

1. Technical corrections to calculations

Several commenters noted errors related to the PM stack test report and conversions that were used in determining the emissions limits for total PM and filterable PM. These errors in the data do not impact the ambient analysis and modeling. These errors related to the conversion of reported emissions rates to oxygen-corrected emission limits.

The Agency agrees with the suggested technical corrections, and will make minor changes to the following conditions in the Order of Approval:

7. Total particulate matter emissions from the plant exhaust stack shall not exceed ~~0.0052~~ 0.0116 gr/dscf (corrected to 7% O_2) as measured by U.S. EPA Method 5 as modified by Puget Sound Clean Air Agency Board Resolution 540 dated August 11, 1983.
8. Filterable particulate matter emissions from the plant exhaust stack shall not exceed ~~0.0026~~ 0.0029 gr/dscf (corrected to 7% O_2) as measured by U.S. EPA Method 5 as modified by Puget Sound Clean Air Agency Board Resolution 540 dated August 11, 1983.

Importantly, these corrections are consistent with the emissions rates that were modeled and included in the ambient analysis, so the ambient analysis does not need to be revisited.

2. Scope of review, including the tanks and condensers, and the storage of cutback asphalt

Several commenters mentioned the scope of the review, suggesting that either the Agency was reviewing too many pieces of equipment, or that the Agency should review the entire facility.

On March 6, 2019, the Agency issued to Cadman Notice of Violation (NOV) 3-009870. This NOV was for the following:

> *The following pieces of equipment were installed without prior NOC application, review, and approval from this agency: 1) new dryer installed ~April 2018, 2) baghouse replacement (~2015 and ~2008), and 3) scavenger duct to baghouse from truck loading process (~June 2016) and 4) installation of CEI Enterprises Condenser units (2) on heated asphalt storage tanks (2) (~April 2011) (~2016 new one).*

The failure to receive an NOC Order of Approval for the replacement of the condensers on the asphalt storage tanks was clearly part of this NOV issued in 2019. Cadman did not appeal the Corrective Action

Order (CAO) in NOV 3-009870. This NOV is the basis for what was included in this permitting action. Cadman's opportunity to dispute the determination that a permit was required for the condenser change was in 2019 when the NOV CAO was issued. This Order of Approval does not present a second opportunity for Cadman to appeal the NOV CAO that underlies it. Given the content of NOV 3-009870 and the cited Agency regulations in it, the Agency was acting consistently with its enforcement case and with its regulations by including the condensers in this permit review. In its SEPA Checklist, Cadman stated: "Cadman is applying for an air permit that reflects the current status of the equipment and clarifies the production limitations of the dryer." Additionally, Cadman voluntarily has identified that operation with no visible emissions from the asphalt cement storage tanks and a prohibition on storage of cutback asphalt in the tanks are both consistent with Cadman's current and planned future operations.

In the cover letter that accompanied the application for NOC 11861, Christy McDonough, Environmental Manager of the Cadman Kenmore facility wrote, "Though the condenser installations reduced emissions of air pollutants, because they represent installation of new emission controls they fall under "replacement or substantial alteration of a control device" provisions of the NOC regulations and thus require an NOC under WAC 173-400-114." Cadman's new assertion that the condensers should not be part of the review are in direct contradiction with its own application materials.

Cadman's assertion that the Agency's inclusion of the condensers and storage tanks is due only to recent community concerns regarding the facility's use of cutback asphalt is clearly contradicted by the record of events and by Cadman's own application materials. The suggestion that the Agency is somehow changing its logic behind what is or is not included in this permit review is simply wrong.

Once it was determined that the condensers were within the scope of review, it was necessary for the Agency to consider the emissions those condensers are controlling – namely, evaporative losses from the tanks. These evaporative losses are driven largely by the volatility of the material contained in the tanks. More volatile materials evaporate more readily, which increases VOC emissions: the more volatile the material stored in the tank, the greater its associated VOC and TAP emissions will be. The applicant's calculated VOC and TAP emissions from the tanks were based on the storage of asphaltic cement that would NOT be classified as cutback asphalt. The increased use of lighter petroleum distillates makes cutback asphalt more volatile than other asphalts. Therefore, the storage of cutback asphalt in these tanks would yield higher VOC and TAP emissions than were included in this NOC application or were reviewed by the Agency. Storage of cutback asphalt in these tanks would invalidate the assumptions and emissions factors that were used in calculating and reviewing the project emissions. Further, the inclusion of cutback asphalt in these tanks could possibly lead to a different determination of RACT by the Agency (for example, that the passive condensers do not necessarily constitute RACT if the tank is storing cutback asphalt). Because the storage of these more volatile, higher-emitting, materials was not included in the application and its VOC or TAP emissions estimates, the Agency will not permit the storage of cutback asphalt in these tanks.

This does not represent a general Agency policy regarding the storage or use of cutback asphalt; it is instead the prohibition of a method of operation that the applicant chose not to include in its application or emissions estimates. This does not set a precedent of a prohibition on cutback asphalt; it simply makes enforceable Cadman's decision not to include cutback asphalt and its associated emissions in this NOC application.

Additionally, Cadman stated in their comments on the draft Order of Approval, "Cadman is not using cutback asphalt, has not used cutback asphalt, and has no intention of using cutback asphalt at the

Kenmore Plant." Since the use of cutback asphalt is not already a method of operation at the Cadman plant, and since emissions resulting from the use of cutback asphalt have not been reviewed by the Agency in an NOC application, it appears that any future use of cutback asphalt at the plant would likely constitute a change in the method of operation requiring a new NOC Order of Approval from the Agency. Furthermore, if Cadman has no intention of using cutback asphalt at this plant, then there is no harm to Cadman in prohibiting the storage of cutback asphalt in the tanks.

Several commenters suggested a total prohibition on any storage or use of cutback asphalt on site. The Agency does not hold the view that additional restrictions on cutback asphalt were within the scope of this permit review. Only the equipment described in the worksheet as being subject to review can be subject to this restriction. Finally, the use of cutback asphalt is already restricted through the Agency's Regulation II, Article 3. The Agency will not impose additional restrictions on cutback asphalt beyond the conditions in the draft Order of Approval and the existing Agency regulations.

Additionally, several commenters suggested that the entire plant should be under review. However, the entire facility is not within the scope of this NOC action and expanding the scope of the review as suggested would not be consistent with the applicable NOC requirements.

3. Utility of product / facility output

A comment expressed concern that the worksheet did not address "the importance of asphalt paving for municipal roadways, trails, playgrounds, and parks, as well as parking lots for commercial development and liners for municipal water supply reservoirs."

The utility to society or use of the product made at the present facility is not needed to conduct the analysis of emissions, control technology, or environmental impacts that comprise review under the NOC program or under SEPA, therefore, there is no need to discuss the various uses of asphalt in this worksheet.

4. Testing frequency

Many comments were received regarding the testing frequency in the proposed Order of Approval. Some comments requested more frequent testing, while others requested less frequent testing.

The Agency acknowledges that similar facilities have usually been required to test on a five-year basis. However, the precedent set by other permits is not the only consideration in determining testing frequency. As was noted by many commenters, there has been very little source testing performed at the Cadman Kenmore facility. For a facility that is approximately 50 years old, there is very little facility-specific emissions information available. The facility's compliance record and history of odor complaints in the community also support increased testing frequency, relative to other facilities, is warranted. Additionally, Cadman's request for *less* frequent testing is directly contradicted by the many comments received that request *more* frequent testing. See also Response 9.

Cadman also raised the concern that more frequent testing could lead to unnecessary operation and production at the plant. The Agency notes that Cadman is welcome to perform tests early, basing testing on its operational schedule. Cadman can schedule testing for periods when asphalt will be in higher demand, even if it is months ahead of the three-year deadline. The Agency encourages Cadman to plan its testing for periods when it expects high demand for its product. With careful coordination of testing with production schedules, Cadman should be able to minimize the production of unnecessary asphaltic concrete. The Agency is also unaware of any asphalt plant that operated without production demand simply to complete an air emission performance test.

Conversely, multiple Kenmore residents pushed for more frequent testing for various pollutants. As explained above, the testing in this order of approval is required on a more frequent basis than many other asphalt plants in the Agency's jurisdiction which are required to test on a five-year cycle. The Agency holds that the three-year cycle in this Order of Approval is reasonable given the circumstances presented in this application record. The Agency also notes that this plant does not operate continuously, or even for more than 50% of the time in a given year. This is another reason that three-year testing is an appropriate choice compared to, for example, annual testing.

Finally, the odor monitoring requirements (discussed above and below) and the complaint response and tracking requirements are BACT for this facility and will help assure proper operation of the facility.

For these reasons, the Agency will not change the testing frequency.

5. Odor monitoring

Many comments were received regarding odor monitoring requirements in the proposed Order of Approval. These comments generally focused on Conditions 25, 26 and 27 of the draft Order of Approval (now Conditions 26, 27, and 28).

In comments submitted to the Agency, Cadman expresses dissatisfaction with Conditions 25-27, though Cadman also may appear to misunderstand the odor monitoring required in the Order of Approval. Cadman states that the Agency is attempting to "expand the scope of nuisance rules absent legislative authority". This is incorrect. The conditions that require Cadman to periodically check for odors in the neighborhood near the plant do not "expand the scope of nuisance rules" and do not change anything about when, where, or how the Agency's regulations apply. The odor provisions of this Order of Approval do not stem from nuisance regulation (i.e., Agency Regulation I, Section 9.11) but are consistent with that regulation. Rather, Conditions 25-27 are the Agency's determination of Best Available Control Technology (BACT) under the New Source Review provisions of Regulation I, Article 6, and under WAC 173-400 for odors caused by the equipment that is the subject of this NOC. Under the Agency's duty to regulate emissions of an "odorous substance", which is included in the definition of "air contaminant" that is subject to New Source Review, the Order of Approval contains requirements to monitor for odors, and if the odors are determined by Cadman to be attributable to the equipment covered by this Order, fix what is causing the odor. These conditions are also consistent with Agency Regulation I, Sections 5.05(c) and 9.20.

Under Condition 25 (now 26) a detection of odor triggers a requirement to investigate the issue and, if the odor is attributable to the equipment covered in the Order of Approval, fix it. The requirement to correct whatever Cadman finds to be causing Level 2 odors is not an onerous one and is the type of condition applicable to other sources in the Agency's jurisdiction.

The requirement to traverse the neighborhood also does not attempt to "expand the scope" of any rules, and it does not suddenly make nuisance odor rules apply in new locations. It simply requires Cadman to check to see if the equipment covered in this permitting action is causing odors in the neighborhood and, if so, to investigate and fix what caused the odor. A detection of odor during one of these trips does not constitute an automatic violation of the permit or the Agency's regulations and does not change the scope of any Agency regulation.

In their comments, Cadman's attorneys suggest that the Agency did not consider the costs associated with odor monitoring. The Agency estimates that this monitoring consists of traversing approximately 10,000 feet of roadway, or less than 2 miles. This can be covered on foot in about 1 hour, or on bicycle

in about 20 minutes. This would be required once each week that the dryer operates. While Cadman refers to this amount of effort as "onerous", the Agency holds that this is a reasonable, low-cost, low-tech way to determine if Cadman's equipment is operating properly. This small amount of personnel time and its associated costs is reasonable given the impacts of odors and other contaminants on the surrounding community and is consistent with the monitoring required of other sources in the Agency's jurisdiction.

Regarding Cadman's assertions that monitoring is somehow not part of BACT and/or RACT, the Agency notes that a limitation without a method of compliance would be inadequate, and monitoring and responsive action can be a component of BACT and/or RACT. Monitoring is intended to ensure proper operation of the emissions controls, which include application of production processes and available methods, systems, and techniques In this case, the BACT work practice for prevention of odors is to fix and correct problems as they arise, and part of the monitoring for this is to spend approximately one hour each week traversing the neighborhood, looking for odors of level 2 or greater related to the equipment covered by this Order of Approval. If Cadman's representative finds no odor or determines that the odor was caused by something other than the equipment covered by the Order of Approval, then there is no corrective action required. This monitoring to ensure proper operation and maintenance of the equipment is not onerous and is part of BACT. A leak detection and repair (LDAR) program, which employs a find-and-fix methodology, is a similar and accepted type of BACT for other emission units in the Agency's jurisdiction.

Additionally, Cadman has not suggested alternative language or conditions to ensure that the equipment and processes under review in this permitting action are not causing odor impacts.

Cadman and other commenters noted that there are other potential sources of odor in the area near the facility. This is true. However, the odor of asphalt is reasonably distinct from other potential odors. Agency inspectors routinely conduct odor investigations, and do not automatically associate the presence of any odor with one particular facility.

Furthermore, the history of odor complaints from Kenmore residents related to the facility is a factor that also supports the need for and reasonableness of the required odor monitoring provisions as BACT and a large fraction of public comments received by the Agency specifically mentioned strong support for the odor monitoring provisions in the draft Order of.

Kenmore residents also requested that the area for odor monitoring in Condition 28 should be expanded to include additional locations. The Agency determines that the areas to be monitored identified in the Draft worksheet and NOC Order are appropriate, as areas nearest the plant are the most likely areas of impact. Additionally, the complaint tracking and response aspects of the Order of Approval will help to assure that residents who live outside the actively monitored area will have a straightforward way to report possible odors to Cadman, so that they can be addressed.

For the above reasons, the Agency has determined that Conditions 26, 27, and 28 are reasonable and necessary based on the information before the Agency.

6. Neighborhood traverse requirements

One commenter suggested that the weekly traverse of the neighborhood by Cadman should be required to be conducted by someone who is not affiliated with the company and who is a non-smoker. The Agency believes the suggested changes are not needed, for two main reasons. First, it is in Cadman's interest to comply with the conditions and confirm that they are not negatively impacting neighboring

communities. The Agency expects that Cadman will view these traverses as an opportunity to find possible problems before they escalate. Second, it is important to note that Cadman's neighborhood traverses are only one component of the monitoring that will occur. The periodic source tests, the complaint response program, and the interlocal agreement with the City of Kenmore all will help assure that the facility is operating in compliance with the Order of Approval and applicable regulations.

7. Compounds for which limits are set and testing is required, and use of AP-42

Several commenters suggested that the Agency should set limits for more compounds, such as individual TAPs, and it should require source testing for those compounds. They expressed concerns regarding the available information used in estimating emissions, such as EPA's AP-42 documents. They also urge the Agency to set limits based on novel criteria, such as health-based on limits on specific VOCs. One commenter specifically mentioned emissions of metals as being of particular concern.

The information and analysis that are available regarding the emissions of individual TAPs (including metals) and VOC compounds demonstrate that emissions will not be close to the ASIL for any TAP. While the emissions factors used in this calculation are not without uncertainty, as was noted by several commenters, there is not sufficient uncertainty or evidence to suggest that tests for additional pollutants are needed. For all TAPs except one, emissions estimates using AP-42 were so low that they did not even trigger ASIL modeling. For these pollutants, the error in the emissions estimate would have to be very large for an ASIL to be reached. The one TAP that did trigger modeling was hexavalent chromium, which had a modeled ambient concentration that equaled only 2.5% of the ASIL. In this case, the emissions estimate would have to be too low by a factor of forty for the ASIL to be reached. This is very unlikely.

The Agency's analysis is sufficient to demonstrate that the emissions of TAPs from this project will result in ambient concentrations below the applicable ASILs. Additionally, since nearly all of the TAPs emitted from this facility are either VOCs or constituents of particulate matter, VOC and PM limits in the NOC Order apply to these individual TAPs and will limit any emissions.

The Agency used the best information available in its analysis. When source-specific data were available, such as in the ambient analysis for particulate matter that was based on stack test data, this information was used in the analysis. When source-specific information was not available, other sources of information, such as AP-42 emissions factors, were used. While AP-42 data are not specific to any individual source, AP-42 emissions factors are very useful in determining potential emissions from a process when source-specific data are unavailable. This is an appropriate use of AP-42.

Under Agency Regulation I, Section 3.05(b), the Agency has the authority to conduct, or to require a source to conduct, a source test to demonstrate compliance with an emission standard. However, this authority applies to emissions standards that are already in place. If there is no standard with which the source can demonstrate compliance, the Agency cannot require testing. Only after a standard or Order of Approval is in place can the Agency require testing.

The Agency maintains that the choice of pollutants for which tests are required and limits are set in the draft Order of Approval are appropriate.

8. Facility operations during testing

Several commenters noted that Cadman could conceivably perform stack testing at a particular asphalt production rate, then actually operate at higher rates. There does not appear to be any restriction in the

draft Order of Approval that would require source testing to be performed at production rates that are representative of the highest production rate at the facility.

The Agency will add a new Condition 23 to assure that the hourly production rate during the test matches the maximum production achieved in the facility's recent past.

> 23. During each test to demonstrate compliance with Condition 7, 8, 10, 11, or 12, the owner or operator shall produce asphaltic concrete at or near the maximum hourly production rate of asphaltic concrete achieved in the three years prior to the test. If this production rate cannot be achieved during the test, the owner or operator shall explain in the test plan and test report why the test conditions should be considered representative of normal operation.

Additionally, Condition 22 was changed to include the planned production rate in the test notification that precedes the test: "The test plan shall detail the test methods used for each pollutant, the planned production rate during the test, the operational data that will be collected during the test, and any other relevant information about the test."

These new conditions will assure that tests are performed under conditions that are representative of actual operations, while still allowing for operational flexibility.

9. Unannounced testing

Several commenters suggested that the Agency should conduct unannounced source tests of Cadman's emissions.

Stack tests require specialized equipment, such as a trailer, sample nozzles, tubing, analyzers, and calibration canisters that the Agency does not own. Therefore, it would presently be impossible for the Agency itself to conduct this type of testing. Theoretically, the Agency could hire a stack testing company to perform stack testing. However, this has multiple associated problems. First, given the limited resources of the Agency, spending the tens of thousands of dollars that are required for a full set of tests would greatly stress available resources and would inappropriately transfer the costs of demonstrating compliance from sources to the Agency. Second, contracts for tests would need to be arranged weeks or months ahead of time, and yet there would be no guarantee that the plant would even be operating on the scheduled day. Additionally, there are thousands of registered sources in the Agency's jurisdiction that it regulates, many of which conduct regular source tests – having the Agency conduct these source tests itself would be infeasible.

Having the owner/operator of the facility be responsible to hire the contractor to conduct the stack tests assures that the costs associated with the testing are borne by the facility itself, not the Agency or the public. Additionally, it also assures that the facility will actually be operating when the test is scheduled.

10. Modeling, unique terrain and choice of meteorology

Some commenters had questions or expressed concern or disapproval regarding the meteorology data set used for modeling.

The modeling employed the nearest, most representative complete data set for meteorology, which in this case was Paine Field. While meteorological data from 10 miles away is not ideal, it would capture regional scale meteorology well. The local terrain is included in the modeling, even if it is not reflected in the meteorology that is used to drive the model. The use of the rural option in Aermod appears to be consistent with EPA's preferred approach in 40 CFR 51 Appendix W. Bearing these in mind, the choices

made in modeling, including choices regarding meteorology and terrain, were reasonable ones that yield good information regarding projected ambient concentrations. Furthermore, the use of information from NW Airquest for background concentrations is also appropriate.

As was described in the worksheet, the modeled concentration of the only TAP that triggered modeling was a factor of 40 below the ASIL. For criteria pollutants, the only pollutant that came near the NAAQS was $PM_{2.5}$. However, most of this was driven by background concentrations, with a relatively small contribution (at most about 37%, immediately adjacent to the facility) from the Cadman plant. Therefore, there is generally a wide margin to account for any possible shortcomings in the meteorological inputs or other assumptions. For $PM_{2.5}$, there is less margin. However, the frequent testing required for $PM_{2.5}$ in Condition 22 assures that emissions will not exceed what was modeled.

The modeling performed is consistent with approaches taken by air agencies in Washington, is reasonable and sufficient for this permitting decision, and additional modeling will not be required..

11. Role of the City of Kenmore and its Interlocal Agreement with the Agency

Comments from the City of Kenmore seek clarity on whether the "duly authorized representative" referred to in conditions in the Order of Approval refer to staff of the City of Kenmore, operating pursuant to the Interlocal Agreement between the City and the Agency. Yes, the Agency confirms that this does include representatives of the City, acting as authorized under the Interlocal Agreement.

The City also expressed interest in renewing the 2016 agreement beyond its June 30, 2022, expiration date. The Agency and City have renewed this agreement, effective July 13, 2022. The renewed agreement is available on the Agency's website at https://www.pscleanair.gov/DocumentCenter/View/4785/2016-002-4-City-of-Kenmore-Cooperative-Odor-Complaint-Investigations-PDF.

12. Odors from asphalt in trucks

The City of Kenmore has asked that Agency require that trucks loaded with asphalt products be covered before leaving the facility in order to minimize odors.

This NOC review covers only the equipment that was enumerated above that was replaced or modified, and therefore falls under the Agency's authority under Agency Regulation I, Article 6 and applicable WAC 173-400 and -460. Emissions from asphalt carried by trucks is outside the scope of the review of this NOC application. Therefore, the Agency cannot impose this type of restriction in this Order of Approval. However, in their comment letter on the draft Order of Approval, Cadman states that it has already committed to the use of covered loads as a best management practice: "The asphalt transportation includes limits on odor by the use of covered loads and by the use of temperature limitations, via the warm mix asphalt process."

13. Timeline for corrective action upon complaints of odor

The City of Kenmore has asked that the Agency change the requirement for Cadman to respond to odor complaints from within one working day to "immediately". Other comments expressed similar concerns regarding odor complaint response. While it may be in Cadman's best interest as a neighbor to respond as soon as possible to complaints, Cadman may be unable to respond immediately in all situations. For example, if all plant personnel are occupied on pressing issues, a requirement to respond "immediately" could be extremely disruptive, and potentially even dangerous. The Agency maintains that the

requirement to respond within one business day is a reasonable one that balances the community's need for quick responses with the facility's need to conduct its operations.

14. Long-term health monitoring or cancer study

Some comments suggested the Agency should conduct long-term health monitoring or a cancer study in the area near the facility.

Health considerations are included in the permitting process in a few ways. First, health data are considered in determining National Ambient Air Quality Standards. Second, health data are used in setting Acceptable Source Impact Levels. Health impacts are built into these metrics, so that when they are used in permitting decisions, the Agency is using relevant health data.

Additionally, the type of long-term health or cancer monitoring suggested by the commenter is outside the Agency's legal authority for this permit review.

15. Health outcomes spreadsheet

The City of Kenmore included a spreadsheet of various respiratory health outcomes that apparently originated from Public Health – Seattle & King County and asked for the Agency's response.

Many of the linkages between air pollution and health have been well documented through the years, in the scientific literature and in the studies that the Environmental Protection Agency conducts in determining National Ambient Air Quality Standards (NAAQS) or in conducting risk reviews for National Emissions Standards for Hazardous Air Pollutants. The various health outcomes in the spreadsheet include hospitalization and mortality data for asthma and for other respiratory conditions.

As described above, various health outcomes have been considered in determining the regulations that underlie air permitting, such as the NAAQS or the Small Quantity Emissions Rates and Acceptable Source Impact Levels for Toxic Air Pollutants in WAC 173-460, and have appropriately been applied in this permitting review; the offered spreadsheet of respiratory health outcomes will not result in any changes to the draft Order of Approval.

16. Oxygen correction factor in emissions limits

Some comments expressed concern regarding the oxygen correction factor used, or requested that a different factor be used in this Order of Approval.

As was discussed in the worksheet, the Agency's previously issued orders of approval have generally included oxygen correction to 7%. The worksheet also included the comparison to limits with different corrections. The use of an oxygen correction makes it impossible for a source to use extra dilution air in the stack to lower pollutant concentrations for the sake of meeting a concentration-based emissions limit. The Agency notes that the oxygen correction should have no impact on the stringency of the limit, as long as the correction calculations are performed correctly and as long as the source does not dilute its stack with air for the sake of reducing the stack pollutant concentration. The 7% oxygen correction is also consistent with the limits in Agency Regulation I, Sections 9.07 (for sulfur dioxide emissions) and 9.09 (for particulate matter emissions) that also apply to this facility. The Agency will not change the oxygen correction.

17. Reporting of malfunctions

Public Health – Seattle & King County has recommended that the facility be required to notify the Agency within 24 hours of a malfunction of air pollution control equipment or monitoring device, so that the Agency could in turn notify the public.

Under WAC 173-400-108 (which will become applicable upon EPA approval of this item in the Washington State Implementation Plan), "When excess emissions represent a potential threat to human health or safety, the owner or operator must notify the permitting authority by phone or electronic means as soon as possible, but not later than twelve hours after the excess emissions were discovered." WAC 173-400-107, which is applicable until 173-400-108 is approved by EPA, contains similar language, without the reference to twelve hours. In such a scenario, the Agency would then determine how best to disseminate this information to the City and the public. Additionally, at an asphalt plant, a malfunction that would constitute such a threat would likely be accompanied by visible emissions and/or strong odors that would make the threat obvious, even without notification from a government agency.

For other excess emission events, Cadman would be required to report the event to the Agency within 30 days after the end of the month in which the event occurred, in accordance with WAC 173-400-107/108. If the facility were to knowingly continue operating with malfunctioning equipment, it could constitute a violation of Conditions 6, 9, and/or 21 of the Order of Approval and also possibly of Agency Regulation I, Sections 9.03 and/or 9.20. The Agency would find this information through a combination of inspections, reviews of reports, and potential complaints received from the public.

Given these requirements, no changes will be made to the Order of Approval based on this comment.

18. Reporting of emissions test results

Public Health – Seattle & King County stated that it is unclear how the results of emissions tests in Conditions 7 through 13 are tracked and reported to the Agency.

As required by Condition 22, Cadman will be required to submit a test plan to the Agency at least 21 days in advance of any test. Under Agency Regulation I, Section 3.07, sources are required to report the results no later than 60 days after the test. Under Regulation 1, 3.07(c), the test report must include all of the following:

(1) A description of the source and the sampling location;

(2) The time and date of the test;

(3) A summary of results, reported in units and for averaging periods consistent with the applicable emission standard;

(4) A description of the test methods and quality assurance procedure employed;

(5) The amount of fuel burned or raw material processed by the source during the test;

(6) The operating parameters of the source and control equipment during the test;

(7) Field data and example calculations; and

(8) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

These requirements apply to all sources that conduct source tests. Because these requirements are in the Agency's broadly applicable regulations, there is no need for them to be duplicated in the source's Order of Approval.

19. Reporting of exceedance of annual limits

Public Health – Seattle & King County requested that exceedances of limits that are on a 12-month rolling basis should be reported when discovered, not at the end of the 12-month period.

Rolling 12-month totals are recalculated every month. Every month, the most recent month gets added to the previous 11 months, and this 12-month value is compared to the permitted amount. Per Conditions 16 and 19, Cadman must notify the Agency when the limit is exceeded. There is no need to wait for a long time period to elapse – each month presents a new 12-month rolling total.

These requirements will be retained as they are in the draft Order of Approval.

20. Investigations by the Agency

Public Health – Seattle & King County asserted, "The methodology is unclear as to how the agency initiates and completes odor investigations by the control officer." The Agency implements Agency Regulation I, Section 9.11 and all investigations will be consistent with that regulation. Investigations are case-specific and will depend on the facts at the time.

Public Health also suggests "a clear time period for odor complaint response, rather than 'immediately,' which can be subjective." Presumably, this comment refers to Condition 26 (now 27). The main action item for Cadman in this condition is to "[t]ake corrective action to reduce odors beyond the property line to Level 1 or lower (see Agency Regulation I, Section 9.11(b)) as soon as possible, but within 24 hours after receipt of the complaint." While the term "immediately" can be open to interpretation, the corrective action must occur on a concrete timeline. This corrective action is an important part of the complaint response, and it must occur "as soon as possible, but within 24 hours after receipt of the complaint." The Agency believes this is clear and does not require any changes to the conditions in the Order of Approval.

21. Additional sensors and odor technologies

Public Health "recommends the facility consider exploring different sensors/odor monitoring devices that can provide data 24/7 and eliminate some of the limitations of personnel trained in odor investigation. In addition, there should be multiple people used as sensors for odor and not just facility employees."

The Agency would also encourage Cadman to explore continuous sensors and odor monitoring devices that can provide 24/7 data.

Regarding the notion that the Agency should employ odor sensors, the Agency is unaware of any sensor technologies that are compatible with Regulation I, Section 9.11, and no commenters suggested any specific technologies that work in a manner that would be consistent with this regulation. Instead, the Agency will continue to rely on an effective, proven approach that has been in use for decades.

The Agency notes that while the routine neighborhood traverses that will be performed under previous Condition 27 (now 28) will likely be performed by facility employees, Agency inspectors and City staff operating pursuant to an interlocal agreement between the Agency and the City of Kenmore may also conduct odor investigations. Given the Agency's extensive history and experience with odor

investigations, and the public's ability to submit complaints to the Agency and to Cadman, the Agency does not need to change these conditions in the Order of Approval.

22. Criminal charges

Some comments suggested that Cadman should be subject to criminal charges. Some comments also state or imply that previous instances of noncompliance with air regulations are criminal matters.

The Agency is not tasked with enforcement of criminal law and matters related to criminal law are outside the scope of this permit review, which is focused on the aforementioned equipment that was modified or installed.

23. PAH emissions

Some comments expressed concern about PAH emissions, and one commenter attached two documents related to health impacts of polycyclic aromatic hydrocarbons, which are a component of asphalt emissions, as well as emissions of diesel particulate matter and wood smoke. However, there was no request associated with this information, and the Agency will not make any changes to the Order of Approval resulting from this attachment. Furthermore, as was noted in previous responses, pollutant-specific health data is incorporated into permitting decisions via the air regulations that underlie facility-specific permits. See also Responses 7, 14, and 15.

24. General support for Order of Approval

Multiple commenters stated that they are in support of issuance of this Order of Approval. Once the emissions standards in this Order of Approval are in place, then testing to demonstrate compliance with those limits will begin.

25. Testing of plant exhaust stack

One commenter suggested that the Order of Approval should explicitly state that the plant's exhaust stack is where tests should be performed and the location of the sample probe be specified. However, these details are included in the test methods for the tests that are required. Since these are already included in the methods, there is no need to repeat the requirements as permit conditions.

A related comment suggested that conditions should explicitly require "that VOC testing be performed while binder is added to hot aggregate in the running pugmill mixer." However, Regulation I, 3.07(c) and Condition 23, make clear that the source test must be performed during representative operation, which means producing asphaltic concrete in the method described by the commenter. Since this is already required, there is no need to modify the conditions of the Order.

26. Cutback asphalt tank testing

Multiple commenters suggested the Agency should perform surprise testing of the contents of the tank that is prohibited from containing cutback asphalt. The Agency notes the suggestion.

Since this comment regards future Agency inspection and enforcement practices, and not the contents of the Order of Approval, this will not result in any changes to the Order.

27. Falsifiable records

One commenter suggested that paper records of asphalt deliveries should be prohibited and that read-only electronic records of the delivery and loading of asphalt cement should be kept electronically. The

Agency believes the likelihood of this type of fraudulent behavior is low, and the current requirements are consistent with other Agency Orders of Approval and enforcement practices. The recordkeeping requirements will not be changed.

28. Representativeness of emissions factors

One commenter suggested that the possible use of cutback asphalt results in higher VOC emissions than calculated by the applicant and the Agency. The Cadman Kenmore facility does not use cutback asphalt. Cadman stated in their comments on the draft Order of Approval, "Cadman is not using cutback asphalt, has not used cutback asphalt, and has no intention of using cutback asphalt at the Kenmore Plant." Since the use of cutback asphalt is not already a method of operation at the Cadman plant, and since emissions resulting from the use of cutback asphalt have not been reviewed by the Agency in an NOC application, it appears that any future use of cutback asphalt at the plant would likely constitute a change in the method of operation requiring a new Order of Approval from the Agency. Therefore, there is no information suggesting that the Agency's estimates of emissions are too low or that any ASIL would be exceeded. See also Responses 2, 4, and 7.

29. Complaints

A comment suggested Cadman should be required to post signage along the Burke-Gilman Trail and Highway 522 with information about how to submit complaints to the Agency. The Agency disagrees. The Agency has a widely accessible website through which complaints can be submitted. Further, the response to this comment period suggests that the residents of Kenmore are aware of the Agency's existence and its role in air compliance. Finally, the inter-local agreement between the Agency and the City of Kenmore means that the City will also be equipped to handle such complaints. With multiple easily accessible venues for complaints, additional signage is not necessary.

Another commenter suggested that there should be a process for Kenmore residents to complain about the facility. Complaints may be directed to Cadman, pursuant to the complaint phone number required under Condition 29 (previously 28). Complaints may also be directed to the Agency and to the City of Kenmore.

Another commenter asked about the timeframe for complaint response. Under Condition 29, Cadman is required to do the following when they receive an air quality-related complaint:

d) The owner or operator shall record and investigate complaints received regarding air quality as soon as possible, but no later than one working day after receipt.

e) The owner or operator shall correct any problems identified by these complaint investigations within 24 hours of identification or cease operation of the equipment until the problem is resolved;

30. Testing of soils

One commenter suggested that work at previous asphalt plants has suggested there could be soil contamination at the Cadman plant. Other comments expressed concern regarding the soil at the Cadman facility site. The Agency reiterates that the scope of review for this project is the equipment that was modified or replaced, not the plant as a whole. There does not appear to be any clear connection between the equipment under review in this project and the presence or absence of soil contamination.

31. Prohibition on facility operation during smoke events and/or air quality burn bans

Several comments requested that Cadman be prohibited from operating on days with large amounts of wildfire smoke or on days when the Agency declares an air quality burn ban. On days that are forecast to be impacted by wildfire smoke or other conditions that impact air quality within the jurisdiction, the Agency, along with other environmental or public health agencies, encourages individuals to minimize exposure to smoke by limiting outdoor physical activity and closing windows. However, the Agency is unaware of authority to support inclusion of a requirement that a facility not operate during a smoke event. Therefore, the Agency will not include such a requirement.

32. Questions about the facility from Public Health

Yolonda Pon of Public Health submitted three questions about the facility. Since these were simply questions, none of these resulted in any changes to the Order of Approval.

- Ms. Pon asked whether petroleum solvents are used to rinse equipment, flush lines, or thin the asphalt mix. The rinsing of equipment and flushing of lines were outside the scope of review under this project. For discussion on the use of solvents to thin the asphalt mix, see Responses related to cutback asphalt, above.
- Ms. Pon asked, "Is Cadman using the exact processes and materials used by the strictly controlled HMA facilities described from EPA document AP-42, Section 11.1?" The Agency disagrees with Ms. Pon's description of the facilities in AP-42 ,Section 11.1, as "strictly controlled". As AP-42 represents typical or average facilities and the aggregate test data that EPA received and reviewed in preparing the section for the source category, actual facilities may not be exactly as described in AP-42. However, AP-42 gives a reasonable description of the equipment at an asphalt plant. See also Response 7.
- Ms. Pon asked, "What is the nature of the binder that is used at the plant?" The binder is standard asphalt. Cadman provided a bill of lading, below, from U.S. Oil & Refining (Tacoma, WA) for a shipment received in November 2020, as an example.

PUGET SOUND
Clean Air Agency

SITE: U.S. OIL & REFINING CO.

SUPPLIER: U.S. OIL & REFINING CO.

3001 MARSHALL AVE.
TACOMA WA 98421-2255
PHONE 253-383-1651

CHEMICAL EMERGENCY

SPILL, LEAK ,FIRE, EXPOSURE OR ACCIDENT
CALL CHEMTREC - DAY OR NIGHT
1-800-424-9300

BILL OF LADING

B/L # 693282
ORDER # 159506

CADX / 148
Carrier: CADMAN MATERIALS INC.
Driver: ALEX RODIN
Truck Tank ID: C722 [1 CARGO TNK]
Trailer ID: 2398 [1 CARGO TNK]
Trailer ID:
Date: 11/24/2020
Time-In: 02:44:34
Time-Out: 03:26:55

CARRIER CERTIFICATION

CARRIER CERTIFIES BY ACCEPTANCE OF THE BILL OF LADING THAT THE CARGO TANK SUPPLIED FOR THIS SHIPMENT IS A PROPER CONTAINER IN PROPER CONDITION AND IS PACKED, MARKED,AND LABELED/PLACARD FOR THE TRANSPORT OF THIS COMMODITY AS DEFINED BY FEDERAL, STATE, AND LOCAL REGULATIONS.

CARRIER BY ACCEPTANCE OF THE BILL OF LADING ACKNOWLEDGES POSSESSION OF THE MOST CURRENT EDITION OF THE DOT EMERGENCY RESPONSE GUIDEBOOK.

Bill To: 445000
CADMAN MATERIALS, INC
PO BOX 97038
REDMOND WA 98073-9738

ShipTo: 4450002
Cadman Materials-Kenmore
6431 NE 175th St
KENMORE WA

Dest ID: 1173800

Contract, Project or Purchase Order No.

ORGINAL B/L # :
MANUAL XAC : NO

SHIPPERS SIGNATURE

THIS IS TO CERTIFY THAT THE ASPHALTIC MATERIAL IDENTIFIED BELOW AND COVERED BY THIS BILL OF LADING COMPLIES WITH THE STANDARD SPECIFICATIONS OR AS MODIFIED BY THE SPECIAL PROVISIONS APPLICABLE TO THE PROJECT BY AND FOR THE FOLLOWING AGENCIES:

* WA DOT
* OR DOT
* AK DOT
* WASHINGTON STATE COUNTIES AND MUNICIPALITIE
* FEDERAL HIGHWAYS
* BUREAU OF INDIAN AFFAIRS

COMMENTS:

Product Description

UN3257, ELEVATED TEMPERATURE, LIQUID, N.O.S., 9, III
(ASPHALT)
PG 58H-22 (PG 64-22)
511513
EMERGENCY RESPONSE GUIDE # 128

	TARE WEIGHT	GROSS WEIGHT	NET WEIGHT
Pounds:	33,380.00	105,200.00	71,820.00
Kilos:	15,140.90	47,717.88	32,576.98
Tons:	35.91		
Net Gallons:	8,392.00		
Gross Gallons:	9,184.00		
Liters:	34,765.11		
Metric Tons:	32.53		
Net Barrels:	199.81		

PRODUCT ADDITIVE:

0.40 % EVOTHERM

Gravity (API): 5.60
Temp. (F): 315.00
Tank Number: TANK 20001

33. Test notification date

A comment expressed concern about the advance notice required for a source test, stating that 30 days does not give the facility sufficient flexibility and that it is inconsistent with Agency regulations that require 21 days' notice.

The draft Order of Approval required advance notice to the Agency of 30 days before a scheduled source test. This is to allow Agency staff time to review the test plan, provide feedback, and prepare to possibly witness the test. When a test plan is required, it is within the Agency's purview to require a longer advance notice than the 21 days required under Agency Regulation I, Section 3.07. However, given the need to coordinate production schedules with testing requirements and the desire to not run unnecessarily, the Agency will change this condition to require 21 days' notice, instead of 30. This will still give the Agency time to plan to observe a test, and should give Cadman some more flexibility in scheduling. Condition 22 will be changed from requiring 30 days' notice to requiring 21 days' notice.

34. Incorporation of "better" controls and ambient monitoring into conditions, and stringency of conditions

Some comments requested the use of "better emissions cleaning methods" and "regular air quality monitoring" in the Order of Approval. Similarly, other comments requested a stringent permit with strict measures and the need for assurance that the facility will thoroughly control its emissions of particulate matter and other pollutants.

Through the NOC process and following its Regulations, the Agency has determined BACT for the emission units subject to review. The Agency, following its Regulations, has determined Best Available Control Technology and corresponding emissions limits for this equipment. The Order of Approval also requires regular measurement of emissions, via stack testing, on a recurring basis. The reasoning and data behind these determinations are given in the worksheet.

One commenter stated, "**Fume incinerators and fume oxidizers that eliminate over 99% of VOCs** are available for hot mix asphalt plants," including a link to a non-functioning website. A fume incinerator is a type of thermal oxidizer, in which VOCs and other organics are combusted, converting them primarily to carbon dioxide. These incinerators require the use of a fuel (usually natural gas) for this combustion. Fume incinerators are often used at asphalt terminals (where liquid asphalt binder is received in bulk, then sent out to hot mix asphalt plants such as the Cadman Kenmore facility) or asphalt roofing production plants. The Agency is unaware of any use of fume incinerators at hot mix asphalt plants. Consistent with this observation, New Jersey's State of the Art Manual for asphalt pavement production plants (https://www.state.nj.us/dep/aqpp/downloads/sota/sota19.pdf) states that the available technologies for achieving compliance with VOC standards are "[g]ood combustion practice, burner design and natural gas fuel." The VOC BACT limit of 0.032 lb per ton is consistent with other agencies' determinations of BACT. (See page 12 of this worksheet.)

Based on this emissions rate of 0.032 lb per ton, the Agency estimates that the VOC mass fraction in the dryer exhaust stream is approximately 65 parts per million. Thermal oxidizers are generally more effective at higher concentrations of VOC, which is why they are often employed at facilities with exhaust streams that have high VOC concentrations, such as asphalt roofing producers. At such a low concentration, the heat generated by the combustion of VOCs would be minimal, which means that natural gas firing would be necessary for essentially all the heat for VOC destruction.

Additionally, since this plant uses a batch mix asphalt dryer, liquid asphalt does not contact aggregate until the aggregate has already left the dryer. This means that the liquid asphalt is not subjected to high temperatures as much as it would be in a drum mixer. This limits the emissions of VOC that result from volatilization from the liquid asphalt binder.

For these reasons, a fume incinerator is not considered BACT in this case. The Agency stands by its determination of BACT for this process, as spelled out in detail in the worksheet.

35. Investigation of non-odor air quality problems

A question was about whether the Agency investigates air quality problems for issues not related to odor, or if only odor is within the Agency's purview. The Agency may investigate both odor-related and non-odor-related air quality issues.

36. Tack storage tank

One commenter asked whether the contents of the tack storage tank can be fed to the pugmill mixer. The application materials did not mention a tack storage tank. No tack storage tank is under review in this project. Cadman will be required to conduct testing under representative conditions, so if the representative operation includes feeding the contents of a tack storage tank to the pugmill mixer, then this will be included in testing.

37. Current ASILs

One commenter asked if the current version of the ASILs, published in WAC 173-460 by Ecology in 2019, was being used in the analysis for TAPs for this project. Yes, this analysis did use the current ASIL values. For more information on ASILs and TAPs please see the Washington Department of Ecology's website on this topic: https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Air-Quality-permits/Notice-of-Construction-permit/Health-impact-assessments-of-toxic-air-pollutants.

38. Public information

Several comments suggested that all information known about the materials processed at the plant, and the subsequent emissions, should be public. All information submitted to the Agency regarding emissions is a public record and is available in accordance with Washington's Public Records Act.

39. Additional opportunities for comment

After the conclusion of the public comment period, Cadman and their attorney requested to meet with Agency staff for an additional opportunity to comment on the draft conditions. Because this would have been an additional comment opportunity after the public comment period had concluded, Agency staff did not offer this extra opportunity for comment to Cadman.

40. Stack height and topography

One commenter mentioned that some residences are higher than the stack height at the facility. The stack height and local topography are taken into account in the dispersion modeling of the emissions. This information was therefore included in the ambient analysis. See also Response 10.

41. Time period chosen for background concentrations

One commenter suggested the data used in NW Airquest to determine background concentrations is old, and wanted to know if newer data could be used.

The Agency reviewed data from the closest $PM_{2.5}$ monitor, in Lake Forest Park, to aid in considering whether or not data from 2014-2017 would be useful or representative. As is evident from the table below, there is no obvious trend in average $PM_{2.5}$ concentration between 2014 and 2021.

Year	Annual average $PM_{2.5}$ concentration ($\mu g\ m^{-3}$)
2014	7.3
2015	7.6
2016-2017	Unavailable (relocation)
2018	8.8
2019	7.1
2020	8.1
2021	5.5

Given this lack of a trend, it is reasonable to use data from a few years ago in determining background concentrations. See also Response 10.

42. Further investigation

A comment stated that "further investigation" is needed into this matter. The analysis in the Agency's worksheet, and the required monitoring, testing, and recordkeeping in this Order of Approval constitute a great amount of investigation into this facility and its emissions. The Agency holds that this is an appropriate amount of investigation into this project.

43. Greenhouse gases and the Climate Commitment Act

One commenter stated that the Climate Commitment Act should be inserted into the Order of Approval, and other commenters stated general concerns about greenhouse gas emissions.

The criteria for facilities to be subject to the requirements of the Climate Commitment Act are spelled out in the legislation and in the regulations currently being developed by the Department of Ecology. Inclusion in the Climate Commitment Act is an entirely separate process from this Order of Approval for specific emission units and its criteria are established through legislation and rulemaking, not through individual permitting actions. Since this project entails the replacement of existing equipment with similar new equipment that uses the same fuels and feedstocks as the existing equipment, there are no identifiable new greenhouse gas emissions associated with this project.

44. Penalties for violations of the Order of Approval and Agency regulations

One commenter suggested the NOC Order of Approval should include "specific outcomes" if the facility does not comply with conditions or with regulations. The Agency does not identify specific future enforcement choices or outcomes, including but not limited to penalties, in NOC Orders of Approval. Instead, any future enforcement is handled through the Agency's standard enforcement procedures. The penalties associated with various violations of permit conditions or regulations are issued in

accordance with Agency Regulation I, Article 3, and with the civil penalty worksheets approved by the Agency's Board of Directors.

45. Earthquake retrofits

One commenter stated that the Agency should require seismic retrofits for additional safety during an earthquake. Condition 2 does not relieve Cadman from compliance with any applicable requirements of other government agencies, including but not limited to applicable seismic requirements. The Agency will not add seismic requirements to the NOC Order of Approval

46. Stringency and previous noncompliance

One commenter stated that due to "past behavior" at the facility, the Agency should have "strictest measures in place" to ensure compliance. The Agency believes the stringency of the conditions in the Order of Approval are the correct application of BACT and/or RACT for the project before it. The testing, monitoring, recordkeeping, and reporting requirements will provide assurance that the facility will operate in accordance with its emissions and operational limitations.

47. Inspection of records

One commenter suggested that the Agency should review the facility's records regarding operation and maintenance. During an inspection, the Agency inspector reviews all the records that are required to be kept under Agency regulations, state or federal regulations, and all applicable Orders of Approval from the Agency. Review of records is an important component of inspections. See also Condition 30.

48. Future permits

One commenter asked what kinds of actions would require a new permit. The main regulations relevant for this question are Agency Regulation I, Section 6.03, and the sections of WAC 173-400 that have been adopted by reference by the Agency. Generally, these regulations require an NOC Order of Approval be issued by the Agency before the establishment of a new source of air pollution, the modification of an existing source of air pollution, or the substantial alternation of air pollution control equipment (subject to the exemptions, requirements, and definitions in the regulations).

49. Additional mitigation measures

One commenter suggested that the Agency should require additional mitigation measures, including vegetation to mitigate air pollution emissions and other measures to preserve or enhance wildlife at the facility. Given the emissions limitations and requirements in the Order of Approval, the Agency holds that its conditions are sufficient for air quality protection, and that additional mitigation measures are not needed for this project. Similarly, as was noted elsewhere, this project is not expected to have a probable significant adverse impact on bird, fish, or other species, so additional measures regarding wildlife are not needed. Of course, Cadman may always implement such mitigation measures voluntarily.

50. Emissions report

One commenter wants to know why the facility only has the "potential" to be an emissions reporting source. The requirement to report annual emissions totals to the Agency are based on the total amount of that pollutant emitted in a given calendar year. For most sources, these thresholds are given in Agency Regulation I, Section 5.05. Sources are required to report annual emissions of any pollutant in excess of the thresholds in this regulation. These thresholds are 2.50 tons of any single hazardous air

pollutant; 6.25 tons of total hazardous air pollutants; 25.0 tons of carbon monoxide (CO), nitrogen oxides (NOx), particulate matter ($PM_{2.5}$ or PM_{10}), sulfur oxides (SOx), or volatile organic compounds (VOC); or 0.5 tons of lead.

These reporting requirements are completely separate from the requirement to report the results of required emissions testing. Results from all emissions tests are required to be submitted to the Agency within 60 days of the completion of the test.

51. Publication of previous violations or complaints regarding the facility

One commenter suggested the Agency should "make public every previous notice of odor complaint". Such information would be available to the public if requested. The easiest way to learn how to request records from the Agency's is summarized on the Agency's website at https://pscleanair.gov/272/Records-Request. However, the Agency does not as a matter of course publish lists of complaints at particular facilities.

52. Control of recordkeeping and review of records

A comment stated that the Agency "should not allow Cadman to have total control over its own recordkeeping". Other comments expressed concern regarding recordkeeping procedures and requirements. In Condition 30, Cadman is obligated to allow Agency inspectors to review any records that are required under this Order of Approval. Regarding the question of who generates and controls these records, the Agency is unable to identify a party better equipped to record operations at the facility than the people who are operating the facility – namely, Cadman staff. The Agency will not require some other outside party to control Cadman's records.

53. SEPA checklist and/or information

A number of comments expressed concern regarding the SEPA environmental checklist provided by Cadman, including raising concerns that certain species or elements of the environment were not identified or the location of the proposed action relative to the shoreline of Lake Washington was not identified. The instructions on the SEPA checklist direct the applicant to submit requested information accurately and carefully and address each applicable element of the environment. At the time the DNS was issued, the Agency deemed the SEPA checklist to be sufficient for the purpose of reviewing the proposed project.

It is important to bear in mind that the scope of review for this proposed project does not involve expansion of the physical location of the facility and is only for the replacement of various pieces of equipment at the existing Cadman plant; correspondingly this analysis looks only at the impacts of the dryer shell and burner replacement, the baghouse alterations, and the condensers added to the asphaltic cement storage tanks. No changes are proposed to the present handling of surface and/or stormwater and no increased need for fire services has been identified. This analysis is not for the presence or existence of the plant as a whole and it does not cover parts of the plant that were not part of the equipment changes in question. Thus, importantly, the baseline for the Agency's review is not the time before the plant was built and this SEPA analysis properly is looking only at the impacts of the proposed action.

Due in part to the conditions and controls prescribed by the Agency (see for example Conditions 4, 6-14, 18, 20, 21-29), there is no reason to expect that dryer shell and burner replacement, the baghouse alterations, or the condenser additions will have a probable significant adverse impact on any bird

(including but not limited to herons), fish (including but not limited to salmon species) or other species; or create fire or safety, shoreline stability, surface water or water quality impacts; or impact recreational opportunities. Similarly, there is no evidence to suggest that this project would have a probable significant adverse impact on the Lake Washington shoreline or on the health of Lake Washington, on recreational opportunities on the Burke-Gilman Trail, or on the safety of the community due to on-site storage of materials. See also Responses 30, 43.

Some comments asked about the location on the on-site replacement of equipment relative to the shoreline of Lake Washington. The SEPA checklist stated that no work from the project will occur within 200 feet of Lake Washington and the Agency is not aware of information that the on-site replacement of equipment will occur within 200 feet of Lake Washington. Additionally, the City of Kenmore, the entity with shoreline and land use permitting authority, stated to the Agency on Feb. 5, 2021: "The City of Kenmore has not identified any permits that are necessary for the Cadman projects."

For the above reasons and based on the information before the Agency, the Agency has determined that it has sufficient information to conduct SEPA review for the proposed action before it. The Agency will not require a new SEPA checklist from Cadman and will not require additional air, soil or water testing at or near the facility. Additional testing is not necessary based on the information before the Agency. Additionally, based on all the information before it, the Agency reasonably has determined that this project would have no probable significant impact on the environment and will not withdraw its Determination of Nonsignificance.

54. Consultation with other governments on SEPA-related issues

One commenter suggested that the Agency should have consulted with other governments and agencies, specifically the Washington Department of Fish and Wildlife and tribal governments, in the review process. As discussed above, the Agency interacted with the City of Kenmore regarding this facility and permit process. The NOC and DNS were available for public comment for 60 days (a time period longer than the required 30 days for NOCs and 14 days for DNSs), and a hearing was held for interested individuals, businesses, and organizations to voice their opinions and concerns. This comment period was advertised on the Agency's website, through the Agency's email lists, and in the *Seattle Times*. Additionally, notice was published in the state's SEPA Register (Item number 202200909), which is commonly used by government agencies to monitor for projects that may be of interest. No tribes or state agencies submitted comments. Additionally, the scope of this permit process did not meet the criteria for the Agency's Interim Tribal Consultation policy (which was adopted after the submission of Cadman's application). The Agency believes it has met all applicable requirements regarding public notices and opportunities for comment.