Draft Statement of Basis for King County Wastewater Treatment Division West Point Wastewater Treatment Plant

AOP Renewal Issued <Date of Issuance TBD>

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1 Purpose of this Statement of Basis

1.1 General

This document summarizes the legal and factual bases for the draft permit conditions in the West Point Wastewater Treatment Plant (West Point WWTP) air operating permit to be issued under the authority of the Washington Clean Air Act, Chapter 70A.15 Revised Code of Washington, Chapter 173-401 of the Washington Administrative Code and Puget Sound Clean Air Agency (PSCAA) Regulation I, Article 7. Unlike the permit, this document is not legally enforceable. It includes references to the applicable statutory or regulatory provisions that relate to West Point WWTP's emissions to the atmosphere. This document also provides a description of the facility's activities and a compliance history.

2 Why West Point Wastewater Treatment Plant is an Air Operating Permit Source

As currently configured, West Point WWTP has potential emissions above major air operating permit source levels for nitrogen oxides and carbon monoxide. The facility's potential emissions of hazardous air pollutants are below the major source thresholds. It is a "major source" as defined in the federal and state clean air act and the rules implementing these acts. These facilities are required to obtain an operating permit under Title V of the federal Clean Air Act (CAA) Amendments of 1990 and its implementing regulations, 40 CFR Part 70, and WAC Chapter 173-401-300(1)(a)(v). However, the facility is planning to reconfigure part of the plant which may bring the emissions below major source thresholds, but this is not anticipated to be implemented and operational for several years. If this occurs, the facility can request to be removed from the Title V Air Operating Permit program at that time.

3 Source Location and Description

King County's West Point Wastewater Treatment Plant is a municipal wastewater treatment plant with an average annual flow in wet weather of 133 million gallons per day of wastewater and a design maximum flow of 440 million gallons per day during peak storms. The water leaving the facility is treated via hypochlorite disinfection and sodium bisulfate for dechlorination. No air emissions are generated from these processes. The facility was originally constructed in the mid-1960s as a primary treatment plant and was upgraded to provide secondary treatment in 1995. As part of the facility upgrade, a system of air pollutant scrubbers was installed to control odors from preliminary, primary and secondary wastewater treatment and also from solids processing.

The facility includes a preliminary wastewater treatment system for removing trash and grit with air emission control scrubbers; primary wastewater treatment using sedimentation tanks vented to air emission control scrubbers; secondary wastewater treatment including aeration tanks supplied with oxygen for biological treatment and clarifiers open to atmosphere. Secondary treatment does not require air pollution control scrubbers.

The sedimentation and clarifier tanks generate solids that are sent to a blend tank then to a gravity belt thickener, both of which are vented to air pollution control scrubbers. The solids then go to anaerobic digesters which generate digester gas. The gas is used to fuel combustion onsite sources including internal combustion engines for pumping raw sewage, cogeneration engines used to generate heat and electricity, and boilers. Excess digester gas is burned in any or all of the four flares. The raw sewage pump engines and the boilers use propane as backup

fuel if digester gas is not available. The digested solids are sent to a centrifuge for dewatering and then taken off site for land application.

The facility also has a small maintenance paint booth that emits volatile organic compounds and particulate.

3.1 New Source Review Permitting for the Facility

Puget Sound Clean Air Agency New Source Review Permitting

The following Orders of Approval (OAs) have been issued to the facility:

OA 2372 (cancelled) for Three Waukesha VHP 9500 GST Gas Engine Generators, issued 1982. This equipment is no longer at the facility.

OA 4295 (cancelled and superseded by OA 9069) for primary and secondary wastewater treatment update, combustion sources, solids treatment, issued 1992.

OA 4655 (cancelled and superseded by OA 10107 issued with this AOP) for one raw sewage pump engine, issued 1992.

OA 5125 (cancelled and superseded by OA 10107 issued with this AOP) for three raw sewage pump engines, issued 1994.

OA 6606 (cancelled) for boilers, dryers and control equipment, issued 1996.

OA6806 (cancelled) for a digester flare, issued 1997.

OA 8914 (cancelled and superseded by OA 10470 issued with this AOP) for cogeneration engines and included facility-wide synthetic minor limits for NOx and CO.

OA 9056 for a paint spray booth, issued 2005.

OA 9069 for primary and secondary wastewater and solids treatment. This OA included EU 4 - Boiler #3 issued 2005. The Agency has received a Notice of Construction application for Boiler #3 to be replaced in the 2025-2026 timeframe. The review of this application was not yet completed when this AOP renewal was on public notice.

OA 9422 for modifications to scrubbers for primary treatment operations, issued 2006.

OA 10107 (to be issued with this AOP) for addition of air-to-fuel ratio controls and 3-way catalysts for each of four Waukesha L5790G- 600 HP raw sewage pump internal combustion engines, Nos. 401, 402, 403 and 404, fueled with biogas pre-scrubbed for hydrogen sulfide and siloxane, with propane as backup emergency fuel. This Order also includes a change in the units of measure from g/bhp-hr to ppm at 15% O2 for emissions of NOx and CO, issued TBD.

OA 10470 (to be issued with this AOP) for changing the units on the exhaust emission limits from g/bhp-hr to ppm at 15% O2 and includes periodic monitoring and testing for two Caterpillar G 3612 Lean Burn cogeneration engines. This OA also includes compliance requirements for the synthetic minor limits on NOx and CO that were initially put in place via OA 8914. issued TBD.

OA 10861 for replacement of two small boiler burners, issued 2014. Condition 5 of the OA required that the facility to submit a test plant to demonstrate the maximum heat input for the new burners. This test plan was received and reviewed by the Agency. Condition 6 of the OA required that the facility complete a test of the boiler with the new burners following the approved test plan. The results of the test were submitted to the Agency on April 15, 2015. The tests were conducted November 10, 2014 and January 27, 2015. The requirements established based on the testing are included in conditions 2.70 through 2.72. Conditions 2.70 and 2.71 include limits on the fuel flow for both digester gas and propane. Using the Agency's gapfilling authority, Condition 2.72 requires that the amount of each fuel burned in each of the two boilers is monitored and recorded. The records must be kept for at least five years.

The Agency has received a Notice of Construction application for the two small boilers to be replaced in the 2025-2026 timeframe. The review of this application was not yet completed when this AOP renewal was on public notice.

OA 11302 for replacement of three John Zink flares with three Varec Flares, issued 2018. Note that 40 CFR 60.18 for flares only applies if the flares are subject to the NSPS, which these flares are not. The requirements contained in this OA are included in EU 6.

Condition 2.78 of the OA (Condition 7 of the OA) regarding the emission limit for NOx was modified to eliminate the word "not" which appeared to be an error. The wording for the edited emission limit now is consistent with the wording for the emission limits for the other pollutants.

Condition 3 of this OA which required all excess digester gas to be burned in the three permanent Varec flares was initially cancelled and superseded by OA 12304. However 12304 was later cancelled and superseded by 12323.

OA 12304 (cancelled) for one temporary 3.9 MMSCFD capacity flare for back-up use to combust excess gas from the anaerobic digesters during periods when any of the three Varec Series 244E enclosed flares under NOC 11302 are inoperable.

OA 12323 for the addition of a flare for back up to the three permanent flares, issued 2023. OA 12304 was initially issued for this temporary flare, but was cancelled and superseded by this OA 12323. The requirements contained in this OA are included in EU 6. Condition 3 of this OA 12323 cancels and supersedes Condition 3 of OA 11302. However the remaining conditions of 11302 are still in effect. Condition 3 of 11302 which required all excess digester gas to go to the permanent Varec flares was cancelled and superseded in order to allow excess digester gas to also be combusted in the temporary portable flare. The language of Condition 3 in OA 12323 was modified sightly in this AOP to account for a reference to OA 12304 which was cancelled upon issuance of 12323. Note that 40 CFR 60.18 for flares only applies if the flares are subject to the NSPS, which these flares are not. Condition 16 of OA 12323 was a five-year record retention requirement. This was not included in the AOP as all records required by the AOP must be kept for five years.

3.2 Regulatory Orders Issued to the Facility

No regulatory orders have been issued to the facility. However the facility was subject to a settlement agreement for excess emissions from the raw sewage pump engines. The relevant requirements of the settlement agreement are included in OA 10107.

3.3 Operating Permit Issuance and Renewal

An initial air operating permit application was received by the Agency pursuant to WAC 173-401-500(3). The application was determined to be complete. The initial operating permit was issued on August 17, 2001.

This is the first renewal of the original AOP. The application for the renewal was received In August of 2005. The application was received on time and with more than one year remaining on the active permit, which expired on August 17, 2006. The Agency determined the renewal application was complete. In accordance with WAC 173-401-640, the facility operated under the authority of their permit shield from the expiration date of the original operating permit (August 17, 2006) until the Agency issued this renewal of the permit.

An administrative amendment was issued November 15, 2002, to change the Responsible Official from Ron Sims, the King County Executive, to Don Theiler, the manager of the Wastewater Treatment Division.

A minor permit modification was issued June 24, 2005. The complete application was received from King County Wastewater Treatment Division on February 25, 2005. The purpose of this modification was to modify the permit language describing the monitoring required by the permit for the raw sewage pump engines and cogeneration engines. The minor modification application was deemed complete on March 30, 2005. The county was authorized to make the requested change immediately in accordance with WAC 173-401-725(f). A brief description of the modification is below.

The original permit included a monitoring provision in Section II.A.2 (a) of the prior permit for monitoring three raw sewage engines and three cogeneration compression ignition engines once each calendar quarter. Monitoring would increase to monthly for any engine unit that reached 75% of its emission limit. This resulted in unforeseen problems caused by engine maintenance rotations. This condition was replaced by updated monitoring and compliance testing in this AOP.

The modification met the criteria for a “minor modification” under WAC 173-401-725(2)(a)(i) for the following reasons:

- It will not violate any applicable requirement.
- It does not involve any changes or additions to existing monitoring, reporting, or recordkeeping requirements in the permit. The proposed change in scheduling method was carefully considered so that on an average annual basis the same number of monitoring events would occur.
- It does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.
- It does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.
- It is not a modification under any provision of Title I.

4 Compliance History

Onsite inspections of the facility since the issuance of the original AOP in 2001 were performed at least once per federal fiscal year from 2002 through 2023. The inspection performed in 2020

was conducted via telephone due to the COVID-19 measures to protect agency and King County's employees.

The facility has received nine violations in the last five years. The notices of violation for the last five years prior to issuance of this AOP are listed below:

- NOV 3-A000679 issued November 29, 2022 (violation date of 11/04/2022) for failing to keep the scrubber duct work in good working order
- NOV 3-000669 issued November 29, 2022 (violation date of 9/27/2022) for failing to obtain an Order of Approval for a temporary flare that was put in place on September 7, 2022 and operated for 20 days
- NOV 3-000668 issued November 29, 2022 (violation date of 9/18/2022) for submittal of a semiannual report 60 days after the due date
- NOV 3-000407 issued January 27, 2022 (violation date of 10/01/2021) for failure to perform monthly opacity inspections, monthly facility-wide inspections and weekly flare visible emission observations
- NOV 2-000033 issued August 27, 2021 (violation date of 9/18/2020) for failure to provide certification by the responsible official for the annual emission inventory report
- NOV 3-A000243 issued June 10, 2021 (violation date of 1/26/2021) for failure to perform emission monitoring on a cogeneration engine by the due date
- NOV 3-A000242 issued June 17, 2021 (violation date of 1/02/2021) for failure to perform emission monitoring on a raw sewage pump engine by the due date
- NOV 2-010436 issued August 16, 2019 (violation date of 6/30/2019) for failure to document that the general effectiveness of the O&M Plan was examined in the required timeframe
- NOV 3-010079 issued August 16, 2019 (violation date of 6/21/2019) for failure to document information required associated with an odor complaint
- NOV 3-001081 issued December 26, 2023 (violation date of 6/6/2023) for allowing digester gas to be released into the ambient air rather than combusting the digester gas in the boilers, engines, or flares or in combination.

5 Potential to Emit and Actual Emission Inventories

The facility's potential to emit (PTE) of 249 tons per year of each NOx and CO is defined by their PSD synthetic minor limits included in this AOP. This synthetic minor limit was initially put in place via Order of Approval 8914, issued by the Agency August 3, 2004. The AOP uses the gap filling and sufficiency monitoring authority to update the requirements for demonstrating compliance with the synthetic minor limits.

Emission Inventory Summary (tons per year):

The facility is a natural minor for hazardous air pollutants (HAP). Actual total HAP emissions are consistently under 2 tons per year. The table below summarizes the primary air emissions for the most recent available 5 years. Emission inventories are estimates of actual emissions from

the facility developed by the permittee and submitted to the Agency annually. Emissions from this facility come primarily from digester gas and propane combustion in engines, flares and boilers. Emissions will vary from year to year depending on the usage of the equipment.

Table 1. Emission Inventory Summary (tons per year)

Pollutant	2022	2021	2020	2019	2018
CO	43.43	41.538	40.2215	47.2315	42.875
Toxic Air Contaminants (TAC)	10.4635	9.8565	9.196	7.954	9.108
HAP	1.272	1.268	1.166	1.0725	1.218
SO2	9.1915	8.5885	8.03	6.8815	7.89
VOC	5.669	5.6485	6.0785	6.526	6.186
PM10	1.2535	1.1665	1.184	1.3055	1.2865
NO2	12.411	11.072	15.913	16.593	20.501

6 Compliance Assurance Monitoring, NESHAP and NSPS Applicability Review

6.1 Compliance Assurance Monitoring

The Compliance Assurance Monitoring (CAM) rule requires owners and operators to monitor the operation and maintenance of their control equipment, so they can evaluate the performance of their control devices and ensure they are working properly. The CAM rule applies at major sources with emission units that have control devices and emissions could exceed 100 tons per year if the control device was not operated. The CAM rule defines a major source using the definition in the Part 70 regulations at 40 CFR 70.2. The three types of major sources in Part 70 are:

- Major HAP sources – sources that emit 10 tpy or more of a single HAP or 25 tpy or more of all HAPs combined.
- Major air pollutant source – sources that have the potential to emit 100 tpy or more of any air pollutant subject to regulation
- Major source in nonattainment areas – sources with specified potential to emit of certain pollutants in nonattainment areas.

The facility has the potential to emit above 100 tpy for NOx and CO and is a major air pollutant source. However the facility does not have any emission units with pollution control devices that have potential to emit over 100 tpy. The two major pollutant emitting units at the facility are the raw sewage pump engines (RSP) and the cogeneration engines. The PTE of for CO and NOx from each of the four RSP engines is below 100 tpy prior to the control equipment. The PTE is maintained below 100 tpy for each of the raw sewage pump engines based on the permit condition limiting the usage of propane. The cogeneration engines do not have air pollution control devices. Each of the cogeneration engines have a potential to emit below 100 tpy.

6.2 NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63 Subpart ZZZZ) and NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources(40 CFR 63 Subpart JJJJJJ)

Subpart ZZZZ

The facility has seven engines subject to 40 CFR 63 Subpart ZZZZ serving three different purposes at the facility. These engines are described below.

Emission Unit No. 1 consists of four raw sewage pump engines combusting digester gas with propane backup. The engines are all Waukesha Model 5790g 600 HP SI, 4-stroke, rich burn engines combusting scrubbed digester gas with propane backup fuel.

Emission Unit No. 2 consists of two cogeneration engines combusting digester gas and generating electricity and heat as part of a 4.6 megawatt cogeneration system. The engines are both Caterpillar Model G3612, 3,221 HP, SI, 4-stroke, lean burn engines.

The four raw sewage pump engines and the two cogeneration engines are considered existing engines under the NESHAP as they were constructed and installed prior to June 12, 2006 and the facility is an area source of HAP. Per 40 CFR 63.6595(a)(1) the engines were required to be in compliance with all standards by October 19, 2013. The engines are not subject to Table 2b or numerical emission limits under the NESHAP, but all six engines are subject to maintenance standards. These standards include:

Operating and maintaining the engines, control equipment and monitoring equipment “in a manner consistent with safety and good air pollution control practices for minimizing emissions.”

Minimizing the engine’s time spent at idle during startup and shutdown

Demonstrating continuous compliance by following these maintenance practices every 1,440 hour of operation or annually, whichever comes first:

a. Change oil and filter

b. Inspect spark plugs and replace as necessary

c. Inspect all hoses and belts and replace as necessary

Emission Unit No. 3 consists of one propane-fired Waukesha L7042G Standby Emergency Generator.

The 1043 HP engine generator is only operated during emergency situations and for monthly readiness testing. It is a 4-stroke, rich burn, SI engine and was manufactured in October 2004. It is an “existing” emergency engine for the purposes of 40 CFR 63 Subpart ZZZZ. The generator automatically provides limited emergency power to critical facilities and equipment if both Seattle City Light power sources fail. These standards include:

Operating and maintaining the engines “in a manner consistent with safety and good air pollution control practices for minimizing emissions.”

Limited operation outside of emergency use including 100 hours per year for maintenance checks and readiness testing. Up to 50 of the 100 hours per year can non-emergency operation.

Unlimited operation during an emergency

These sections of ZZZZ do not apply to this source:

63.6612(a)

63.6615

63.6620

63.6635

63.6645(a)(5) - doesn't apply to existing stationary RICE not subject to any numerical emission standards.

63.6650(a) - doesn't apply since Table 7 doesn't apply and all the requirements are in Table 7

63.6655

63.6665 – No general provisions apply for this source

Subpart JJJJJJ

The facility has two 9.683 MMBTU/hr digester gas-fired boilers with propane as backup fuel. The boilers are identified in the permit as Emission Unit No. 5. The boilers are supplied with the same scrubbed digester gas as the raw sewage pump engines. The fuel scrubbing system removes sulfur compounds and siloxane.

Although the boilers meet the definition of gas-fired boiler in the NESHAP, they are identified as exempt from all requirements in the NESHAP. The permit does not contain any NESHAP requirements for these boilers.

6.3 NSPS Applicability

As part of the renewal process, the Agency reviewed federal New Source Performance Standards (NSPS) since the last permit issuance to determine applicability. It was determined that one NSPS applies to two different emission units. A summary of the NSPS requirements and applicability are described here.

6.3.1 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60, Subpart Dc)

This NSPS applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). The NSPS applies to two different emission units consisting of three boilers total.

NSPS Subpart Dc applies to Boiler #3 (Emission Unit #4), a 25.7 mmBTU/hr boiler fired by digester gas with propane backup. The boiler is used to generate heat needed by the facility. The largest users of the heat are the anaerobic digesters.

Inapplicable parts of the NSPS for Boiler #3 include:

- 40 CFR 60.42c (g and h and i)
- 40 CFR 60.43c
- 40 CFR 60.44c

- 40 CFR 60.45c
- 40 CFR 60.46c
- 40 CFR 60.47c

Applicable parts of the NSPS for Boiler #3 include applicability and delegation of authority; maintaining records of fuel usage; and general provisions.

NSPS Subpart Dc also applies to two small boilers (Emission Unit #5) used to generate heat needed by the facility. This emission unit consists of two boilers fired by scrubbed digester gas with propane backup. The actual burner rating of each boiler according to the vendor is 10.92 MMBTU/hr. However, after the boilers were installed, the vendor programmed the burners to not exceed 9.683 MMBtu/hr heat input. This programming does not meet the criteria for derating a boiler to avoid NSPS applicability. The permit contains fuel limits developed during testing that correspond to the restricted heat input. However the programming of the boilers does not allow the burners to operate at higher than 9.683 MMBTU/hr.

Although NSPS Subpart Dc applies to the two small boilers, there are no applicable NSPS requirements beyond those in NSPS Subpart A, which are included in the permit.

7 Applicable Requirements and Other Significant Changes in the Renewal

7.1 Emission Unit Summary Table

A new table was added to the permit located before Section 1 that gives a general description of the emission units at the facility. The table is reproduced below and lists the emission units regulated under this permit located at the facility. The table is for informational purposes only.

Source	Description	Emission Control Equipment or Method	Install Date	Rated Capacities
EU 1 Four Raw Sewage Pump Engines	Four Waukesha Model 5790g engines #401, #402, #403, and #404 Burning digester gas that has gone through the hydrogen sulfide (Sulfatreat or Iron Sponge) and siloxane removal system (Sil-X). Propane as backup fuel	Miratech NSCR for NOx and CO on each engine and Air to fuel ratio controllers on each engine Digester gas pretreatment consisting of two hydrogen sulfide scrubber vessels	Engines 1994 NSCR Engines 401. 402, 403 2015 NSCR Engine 404 2016 Digester gas pretreatment Scrubbers	Engines 440 HP each NSCR exhaust flowrate 3,811 lb/hr @ 850^{o}F each

Source	Description	Emission Control Equipment or Method	Install Date	Rated Capacities
		and three siloxane removal vessels	2014	
EU 2 Two Cogeneration System Engines	Two Caterpillar G3612 engines #1 and #3 Burning digester gas, providing heat used at the plant and also generating electricity sold to Seattle City Light Only one system can be used at a time	Proper operation and maintenance	2012 Initially installed 2014 Commercial operation date	3,221 HP @ 100% load per engine and generating a maximum of 2.3 MW per engine
EU 3 Standby Emergency Engine Generator	Propane Fired Waukesha L7042G "401 Generator"	Proper operation and maintenance	October 2004	1043 HP Propane fired
EU 4 One Large Boiler	One 25.70 MMBTU/hr boiler Burning digester gas with propane as backup fuel Provides additional heat to the facility as needed	Proper operation and maintenance	Boiler 3 installed 1992	25.70 MMBTU/hr
EU 5 Two Small Boilers	Two boilers restricted to less than 10 mmBTU/hr output Burning digester gas that goes through the hydrogen sulfide/siloxane removal system. Propane as backup fuel.	Proper operation and maintenance	Boilers 1 and 2 installed 1992 with burners replaced in 2014	Boilers 1 & 2 Maximum input of 9.5760 mmBTU/hr for Boiler 2 on digester gas

Source	Description	Emission Control Equipment or Method	Install Date	Rated Capacities
	Provide additional heat to the facility as needed			
EU 6 Four Flares	Three Varec Series 244E enclosed flares for burning excess digester gas One trailer-mounted Zeeco flare for backup to Varec flares	Proper operation and maintenance	Varec 2017 Back-up 2023	Varecs approximately 23 mmBTU/hr Zeeco back-up flare approximately 65.8 mmBTU/hr
EU 7 One Paint Spray Booth	Binks Model 30-4028 Paint Spray Booth	Water Wash	1992 Received Order of Approval in 2005	7,125 cfm spray booth 365 gallons per minute water wash
EU 8 Wastewater Preliminary and Primary Treatment with Controls And Secondary Treatment	Bar screens used to remove trash and other non-wastewater solids from incoming wastewater. These are located in an enclosed room and vented to scrubbers Four pre-aeration grit removal tanks, venting to scrubbers Twelve completely covered primary sedimentation tanks venting to scrubbers. Solids from this process go to solids treatment	Three packed tower scrubbers using sodium hypochlorite to treat air streams containing sulfur compounds @75,000 cfm each	1965 (main plant) 1995 & 2006 (scrubbers)	Average in Wet Weather Design Flow (non-storm): 133 million gallons per day Design Maximum: 440 million gallons per day during peak storms

Source	Description	Emission Control Equipment or Method	Install Date	Rated Capacities
EU 9 Wastewater Solids Treatment with Controls	This emission unit consists of all processes and equipment for handling and treating solids upstream and downstream of the digestion process. The equipment includes one raw sludge blend tank with a capacity of 190,000 gallons, ten gravity belt thickeners, two thickened sludge blend tanks with a capacity of 10,000 gallons each, and four digested sludge dewatering centrifuges, and truck loading equipment (conveyors).	Three packed tower scrubbers using sodium hypochlorite to treat air streams from the solids building containing sulfur compounds @ 75,000 cfm each	1995	Thickened Sludge Blend Tank has 2.2 million gallon max capacity

The table includes the emission unit covered in the previous permit and also includes additional emission units that were existing units, but not explicitly identified in the previous AOP. The table also includes new emission units since the issuance of the previous permit.

Sections 1 and 2 are reformatted in the AOP renewal so that all facility-wide requirements and the corresponding compliance methods are in Section 1, and the emission unit specific requirements and corresponding compliance methods are in Section 2. The intent was to make it easier to connect the applicable requirement and the compliance method.

7.2 Updates, Changes, and Additions to Applicable Requirements

Many updates, changes and additions were made to the AOP during the renewal process. These are summarized in this section.

Removal of "Emergency" Affirmative Defense Provisions in Title V and WAC 173-401-645

The affirmative defense provisions provided for in Title V of the Clean Air Act were deleted from the implementing federal rules in section 70.6(g) as of August 21, 2023. Although the WAC

language has not yet been removed from the state regulation and EPA's approval of our program still contains this provision, the Federal Register Notice recommended that the emergency affirmative defense not be included in Title V permits issued after the effective date of the Federal Register Notice.

The Federal Register Notice can be found here:
https://www.epa.gov/system/files/documents/2023-07/8961-01-OAR%20Title%20V%20Affirmative%20Defense%20Final%20Rule.pdf

The language that was included in previous Air Operating Permits issued by PSCAA is below:

"Emergency

An emergency, as defined in WAC 173-401-645(1), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the conditions below are met.

a. *The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:*

   i. *An emergency occurred and that the permittee can identify the cause(s) of the emergency;*

   ii. *The permitted facility was at the time being properly operated;*

   iii. *During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and*

   iv. *The permittee submitted notice of the emergency to the Puget Sound Clean Air Agency within two working days of the time when emission limitations were exceeded due to the emergency or shorter periods of time specified in an applicable requirement. This notice fulfills the requirement of WAC 173-401-615(3)(b) unless the excess emissions represent a potential threat to human health or safety. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.*

b. *In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.*

c. *This condition is in addition to any emergency or upset provision contained in any applicable requirement.*

[WAC 173-401-645]"

PSCAA State Implementation Plan (SIP) Changes

The PSCAA State Implementation Plan (SIP) required by US EPA was updated since the last permit for this facility was issued. This update resulted in replacing multiple state WAC rules with PSCAA rules and ensuring all state-only enforceable requirements were identified. A table was added to Section 5.32 – "Federal Enforceability" identifying which rules are state-only enforceable and which are federally enforceable.

Additional and Modified Conditions

There are applicable requirements that were not included, were incomplete or were insufficient in the previous AOP. Title V of the federal Clean Air Act requires that all air pollution regulations applicable to the source be include in the permit. It also requires that each applicable requirement have a federally enforceable means of "reasonably assuring continuous compliance." Title V, 40 CFR Part 70, and WAC 173-401-615 all contain a "gap filling" provision that enables PSCAA to add monitoring where no monitoring is present. In addition, 40 CFR 70.6(c)(1) and WAC 173-401-630(1) also contain authority to address situations where monitoring exists but is deemed insufficient. PSCAA relied on these authorities to add monitoring where needed.

The Agency has added or changed conditions to address these issues. These additions and changes include:

1) The format was updated
2) PSCAA Reg I, 3.25 Federal Regulation Reference Date – this rule is cited where federal rules are the underlying requirement for a condition. It specifies that the effective date of the federal rule is the one cited in this Agency regulation.
3) All applicable requirements contained in Orders of Approval issued after the issuance of the previous AOP have been added in this updated AOP.
4) Additional monitoring was added to ensure that the permit conditions will reasonably assure continuous compliance with all applicable requirements as required by Title V of the Clean Air Act.
5) Limits were placed on Boiler #3 based on a performance test completed by King County that was required under Condition 6 of Order of Approval 10861. The test was to determine the digester gas flowrates and actual heat input (in MMBTU/hr) at various boiler outputs ranging from 0% to 100%. These results were submitted to the Agency via a letter dated April 15, 2015. The heat inputs and the digester flowrates from this test at 100% load are included in the updated AOP.

Format Changes

The format and organization of the AOP has been updated from the previous version to match the Agency's current format and organization. Sections 3 through 9 were updated as follows:

Section 3: Standard Terms and Conditions

Section 4: General Permitting Requirements

Section 5: General Compliance Requirements

Section 6: General Applicable Requirements

Section 7: Test Methods and Averaging Periods

Section 8: Inapplicable Requirements

Section 9: Insignificant Emission Units and Activities

8 Public Comments and Responses during renewal process

<include discussion after public comment period>

9 EPA Comment Period

<include discussion after EPA review>