



**CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
AIR MANAGEMENT SERVICES (AMS)**

**Synthetic Minor Operation Permit OP17-000024**

**Southeastern Pennsylvania Transportation Authority (SEPTA)- Roberts Complex**

4301 Wissahickon Avenue, Philadelphia, PA 19129 (SEPTA Midvale Bus Facility)

341-342 Roberts Avenue, Philadelphia, PA 19140 (SEPTA Roberts Train Yard)

440 Clarissa Street, Philadelphia, PA 19140 (SEPTA Liberty Yard)

**AMS Response Document to Written Comments Received &  
Virtual Public Hearing on July 27, 2023**

**Prepared By:**

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## **PART I: PROJECT BACKGROUND**

The Southeastern Pennsylvania Transportation Authority (SEPTA) is the regional public transportation authority that operates bus, subway, and rail service in and around Philadelphia. SEPTA operates a bus maintenance facility and rail facilities collectively referred to as the SEPTA Roberts Complex (PLID 01573) in the Nicetown-Tioga Section of Philadelphia. Rail facility and rail facilities collectively means the track, bridges, signals, switches, structures, buildings, and related railroad transportation property located on this particular segment (Nicetown) over which service is to be provided. The Roberts Complex consists of the following:

- SEPTA Roberts Train Yard at 341-342 Roberts Avenue, Philadelphia, PA 19140,
- SEPTA Midvale Bus Facility at 4301 Wissahickon Avenue, Philadelphia, PA 19129, and
- SEPTA Liberty Yard at 440 Clarissa Street, Philadelphia, PA 19140.

On April 12, 2017, SEPTA Roberts Complex submitted a Synthetic Minor Operating Permit (SMOP) Application (OP17-000024) for renewal of the existing SMOP. All the sources in the proposed renewal SMOP are in the existing Synthetic Minor Operating Permit except for two (2) natural gas fired 4.6 megawatt (MW) combined heat and power (CHP) units. AMS approved installation of the combined heat and power units by issuing a construction permit, AMS Plan Approval No. IP17-000009, on November 29, 2017. The combined heat and power units are included in the proposed renewal SMOP No. OP17-000024.

Other sources that are in the existing SMOP No. S12-019 and included in the proposed renewal SMOP No. OP17-000024 for SEPTA Roberts Complex are the following:

- Eighteen (18) external combustion units, which are:
  - Four (4) boilers firing No. 2 oil, of which one (1) rated 522,000 BTU/hr, one (1) rated 4,184,000 BTU/hr, and two (2) rated 8,369,000 BTU/hr each.
  - Two (2) boilers firing natural gas and No. 2 oil each derated to 9,900,000 BTU/hr.
  - Eleven (11) natural gas-fired sources each rated less than 1 MMBTU/hr including boilers, space heaters, and pressure washer.
  - One (1) natural gas-fired spray booth burner rated 1,771,000 BTU/hr that is used to operate a Spray booth for mobile equipment repair and refinishing.
- One (1) emergency generator firing diesel rated 10.150 MMBTU/hr.
- One (1) sand blasting operation and one (1) air compressor for sand blasting operations firing diesel rated 79 HP.
- One (1) gasoline dispensing facility with one (1) 10,000 gallons storage tank. The Stage II vapor recovery was decommissioned in 2022 as required by new PADEP regulation.
- Five (5) parts washers / degreasers (cold cleaning machines).
- One (1) windshield washer fluid tank.

Insignificant sources include storage tanks, boilers and space heaters rated 0.12 MMBTU/hr or less firing natural gas or No. 2 oil, and emergency generators rated less than 40 kW firing natural gas or liquid petroleum gas/propane. Insignificant sources are exempt from AMS permitting

requirements but are included in the SMOP to ensure the facility-wide emissions of criteria air pollutants do not exceed the major source threshold.

The initial public notice on the intent to issue the SMOP was published in the PA Bulletin on December 17, 2022. The initial public notice can be found in 52 Pa. B., No. 51, 7748-7749. AMS received numerous requests for a public hearing and elected to accept additional public comments and to hold a public hearing concerning the renewal of SEPTA's SMOP. Notice of the proposed virtual formal public hearing on the renewal of SEPTA's SMOP was published in the Philadelphia Inquirer and the Philadelphia Tribune on May 31, 2023, June 1, 2023, and June 2, 2023, and in the Pennsylvania Bulletin on June 10, 2023. The notice of the proposed virtual formal public hearing can be found in 53 Pa. B., No. 23, 3134-3135. The public hearing on the proposed draft SMOP was held virtually via Zoom Webinar on July 27, 2023, at 6:00 PM. The public comment period on the proposed SMOP was extended until August 31, 2023.

## **PART II: SUMMARIES OF COMMENTS AND AMS RESPONSE TO COMMENTS MADE DURING JULY 27, 2023, PUBLIC HEARING, WRITTEN COMMENTS RECEIVED DURING THE 30-DAY COMMENT PERIOD, AND WRITTEN COMMENTS RECEIVED UNTIL AUGUST 31, 2023**

**Note:** AMS received written comments and testimony at the public hearing. Where written comments, and the testimony of commenters at the public hearing, raised identical or similar concerns, these comments have been summarized and condensed by AMS where possible. The summarized comments, and attendant responses, are presented below in no particular order.

A transcript of the July 27, 2023, Public Hearing, with noted corrections, can be found at <https://www.phila.gov/departments/air-pollution-control-board/air-management-notices/>.

A copy of all written comments that were received and considered by AMS can also be found at <https://www.phila.gov/departments/air-pollution-control-board/air-management-notices/>.

**Comment 1:** Nineteen (19) commenters want increased air quality monitoring of the site via continuous emission monitoring (CEM) in the two CHP stacks for various pollutants. The commenters also want the CEM data and emissions data to be reported to the public by publishing it on AMS's website.

### **AMS Response Comment 1:**

No local, state, or federal air regulations require CEMs to be installed in the stack of the CHPs at SEPTA Roberts Complex. All local, state, and federal regulations were defined in the Plan Approval Permit No. IP17-000009 for installation of the two CHPs. Since no local, state, or federal air regulations require CEMs to be installed, AMS cannot mandate that SEPTA install CEMs in the stacks of the CHPs.

CEMs are usually required for very large emission sources under a Federal Program such as New Source Performance Standard (NSPS) or Acid Rain. The CHPs are considered a minor source.

For example, CEMs are required for affected units under the Acid Rain Program. As per 40 CFR §72.7(a)(1)-(3), a new unit is exempt from the Acid Rain Program if the total nameplate capacity is 25 MWe or less or burns gaseous fuel with an annual average sulfur content of 0.05 percent or less by weight. CEMs are also required for various major NO<sub>x</sub> emitting facilities that propose to meet Reasonably Available Control Technology (RACT) requirements by averaging emissions from the sources involved in the averaging proposal. Since the CHPs at SEPTA are not subject to the Acid Rain Program or RACT requirements, and the facility does not generate enough air pollution to be considered a major source under the federal guidelines, the CHPs are not required to be installed with CEMs under any federal, state, or local regulations.

Regarding emissions data, SEPTA is required to report fuel usage and emissions of various pollutants every year by submitting an emission inventory report. Additionally, AMS conducts inspections of the facility as part of the Compliance Monitoring Strategy and reviews records that the facility is required to keep as per the operating permit. The monitoring, recordkeeping, and reporting requirements in the proposed SMOP, as enforced by AMS, are sufficient to ensure compliance with the imposed emission limits. The annual emission inventory reports can be made available for public to review upon request. Requests for emission data can be made by sending an email or notification to [DPHAMS\\_Service\\_Requests@Phila.Gov](mailto:DPHAMS_Service_Requests@Phila.Gov).

The addition of an ambient air monitoring station location near SEPTA Roberts is beyond the scope of this SMOP Renewal. Those interested in AMS's plans regarding the future placement of monitors are encouraged to review AMS's Air Monitoring Network Plan, which is updated annually and presented for public comment.<sup>1</sup>

**Comment 2:** Three (3) commenters want AMS to limit the amount of fossil fuels burned on-site to reduce emissions. Seven (7) commenters want the SMOP to limit how much natural gas the CHPs can burn during the ozone season. One commenter suggested that AMS should require SEPTA to turn the CHP down to minimal operation during Code Orange and worse air quality days. Two (2) commenters mentioned that there needs to be limitations for burning natural gas on unhealthy air quality days.

**AMS Response Comment 2:**

While AMS cannot directly limit the amount of fossil fuels burned on-site because it lacks the regulatory authority to do so, the proposed SMOP includes fuel usage limits for natural gas and No. 2 fuel oil to help ensure that the facility does not exceed the Synthetic Minor limits. The facility has accepted the following limits in the proposed renewal SMOP to remain a Synthetic Minor facility:

- NO<sub>x</sub> emission shall not exceed 25 tons per rolling 12-month period,
- VOC emissions shall not exceed 25 tons per rolling 12-month period, and
- CO emissions shall not exceed 28.5 tons per rolling 12-month period.

To ensure compliance with the facility-wide NO<sub>x</sub>, VOC, and CO emission limits above, the following throughput and operational limits are incorporated into the proposed renewal SMOP:

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<sup>1</sup> <https://www.phila.gov/documents/air-management-reports-and-documents/>

- The combined natural gas usage for the CHPs must not exceed 572.67 MMft<sup>3</sup> per rolling 12-month period, which limits combined NO<sub>x</sub> emissions from the two CHPs to 21.8 tons per year.
- The natural gas usage for all other sources at SEPTA Roberts Complex must not exceed 17.81 MMft<sup>3</sup> per rolling 12-month period, and the facility-wide No. 2 fuel oil usage must not exceed 117,090 gallons per rolling 12-month period. These fuel usage limits ensure that combined NO<sub>x</sub> emissions from the eighteen (18) external combustion units and any insignificant sources at SEPTA burning natural gas or No. 2 oil will not exceed 2.06 tons per year.
- The Boilers COMB-07 (Boiler 7) and Source COMB-08 (Boiler 8) are back-up units and can only operate for maintenance, testing, or when both CHPs are not operating. These two boilers must not operate while either CHP Unit G-01 or CHP Unit G-02 is operating.
- The Emergency Generator EG-01 has a fuel usage limit of 1,850 gallons of diesel fuel, which limits NO<sub>x</sub> emissions from EG-01 to 0.41 tons per year.
- The Air Compressor AC-01 has a fuel usage limit of 918 gallons of diesel fuel per rolling 12-month period, which limits NO<sub>x</sub> emissions from AC-01 to 0.28 tons per year.

These fuel usage limits ensure that potential to emit NO<sub>x</sub> emission from all the sources at SEPTA Roberts Complex is 24.71 tons per rolling 12-month period so that SEPTA Roberts Complex is in compliance with the synthetic minor limits at all times.

AMS cannot mandate that SEPTA limit natural gas usage by the CHPs during the ozone season, because the CHPs are not applicable to the Philadelphia Air Management Regulation (AMR) XV. AMR XV's requirement to not conduct testing or tuning during Air Quality Action (Orange or Red) Days only applies to emergency engines in Philadelphia. Emergency engines include sources such as emergency generators or fire pumps that are only operated for emergencies. Emergency engines fall under the Air Management Regulation (AMR) XV requirement since most emergency engines are not required to have control devices such as SCR or DOC. AMR XV limits unnecessary testing for emergency engines during the ozone season. The CHPs are not considered emergency engines and are not applicable to AMR XV. The CHPs are installed with a Urea-Injection Selective Catalytic Reduction (SCR) and an Oxidation Catalyst (OC) system and are permitted to operate throughout the year. Since there are no specific regulations regarding operation of non-emergency engines during air quality action days, AMS cannot require SEPTA to limit operation of the CHPs during air quality action days.

**Comment 3:** Twenty-one (21) commenters want SEPTA to prioritize investing in and installing clean energy sources, so that SEPTA can run its operations using clean, renewable energy and transition away from burning natural gas, including installation of solar panels on rooftops, parking lots, maintenance and substation areas, and vacant land. One commenter wants SEPTA to replace diesel buses on Route 23 with electric trolleys. One commenter wants AMS to make it a requirement that no power plant installation permit be issued unless the applicant can demonstrate why a renewable energy source like wind, solar, or battery storage was not a viable option. Finally, six (6) commenters mentioned that the CHP units are unnecessary because the Wayne Junction substation is already supplied by two transmission lines provided by PECO, so it is not necessary to operate the CHPs which the commenter believes provides the exact same service.

**AMS Response Comment 3:**

AMS cannot mandate that a facility utilize renewable energy sources or install them at a given facility. The feasibility of solar panel installation is outside the scope of this comment response document. However, SEPTA commissioned a study in October of 2016 that looked into renewable energy alternatives to the proposed CHP project. This study concluded that usage of wind-generated energy was infeasible and identified significant operational limitations for the deployment of solar energy at the site. The solar panels would be able to provide the energy only at midday and under ideal conditions. Through a combination of solar panels and battery storage at the SEPTA Roberts Complex, the maximum energy that can be achieved was 15% of the energy required by the site. This study can be found on AMS's website at <https://www.phila.gov/media/20181107145606/Renewable-Energy-Assessment.pdf>

SEPTA has indicated that the roofs of the Bus Maintenance Facility and other unused buildings are in poor state and that to hold a photovoltaic (PV) array, and the roof would need to be replaced and reinforced at a high cost. SEPTA currently generates 15-20% of its electricity needs from solar energy as mentioned in the SEPTA presentation during the public hearing. SEPTA also plans to utilize Hybrid/Electrical buses in the Nicetown area.

AMS cannot force facilities installing power generating units to first demonstrate why a renewable energy source cannot be utilized in its place, unless the facility triggers New Source Review requirements in 25 Pa. Code §127 Subchapter E and must therefore consider alternatives to the proposed source. However, even under New Source Review requirements, facilities are not necessarily compelled to consider renewable energy sources. Pennsylvania Department of Environmental Protection (PADEP) regulations establish requirements for the issuance of Plan Approvals (under which the CHPs here were initially permitted) for the installation of new air pollution sources or the modification of existing air pollution sources in 25 Pa. Code §127 Subchapter B. AMS, as an approved local air pollution program pursuant to 35 P.S. 4012(b), has adopted and enforces these requirements through Phila. Code. Sec. 3-401 and Air Management Regulation XIII. Consideration of alternatives to the CHPs were not required as a matter of law, because the facility does not emit enough air pollution to trigger New Source Review requirements.

Since the increase in emissions from operation of the CHPs does not trigger NSR requirements in 25 Pa. Code §127 Subchapter E, SEPTA was not required to evaluate of alternative locations for the CHP project, consider other possible processes or alternative emission control techniques, and determine that benefits of the proposed CHP project outweigh the potential costs. See 25 Pa. Code §127.205(5). Additionally, AMS has no authority to regulate policy or business practices within SEPTA. Nonetheless, SEPTA explained in the past that the CHPs replaced operation of existing fuel oil fired boilers and provides heat and steam for the Midvale Bus facility and electrical power to the regional rail line.

**Comment 4:** Nine (9) Commenters want SEPTA to plant trees in the area to protect the residents' health.

**AMS Response Comment 4:**

AMS cannot mandate that SEPTA plant trees as part of its permitting process, and the planting of trees at or near the facility is outside of the scope of this comment response document. Nevertheless, SEPTA indicates that it is already planning a tree planting initiative near the facility as mentioned during the SEPTA presentation from the public hearing. Philadelphia Department of Public Health previously recommended that SEPTA plant trees and enhance greening in the area since trees sequester air pollutants from the atmosphere and help to reduce urban heat islands.

**Comment 5:** Sixty-four (64) commenters want increased testing requirements to ensure compliance with the permit limits, including suggestions that SEPTA should conduct a quarterly stack test and a monthly portable analyzer test. One commenter wants additional pollutants to be added for the portable analyzer tests.

#### **AMS Response Comment 5:**

The Plan Approval requires performance testing to be conducted on the CHPs every 8760 hours of operation. The requirement comes from NSPS Subpart JJJJ (Performance Standards for Stationary Spark Ignition Internal Combustion Engines). For the CHPs, a stack test must be conducted every 8760 hours of operation to demonstrate compliance with the NO<sub>x</sub>, CO, Non-Methane, Non-Ethane Hydrocarbons (NMNEHC), HCHO, and ammonia slip emission limits. So, if SEPTA operate the CHPs around 8,000 hours per year, then the stack tests of the CHPs will be conducted nearly every year. Since installation of the CHPs, the performance tests were conducted in November 2019, January 2022, February 2022<sup>2</sup>, and February 2023. Additionally, for the CHPs, SEPTA is required to perform quarterly NO<sub>x</sub> and CO portable analyzer tests on each CHP using an AMS-approved procedure to verify that the Urea-Injection Selective Catalytic Reduction (SCR) and the Oxidation Catalyst (OC) system for each unit are working properly. The SCR is used to reduce Nitrogen Oxides (NO<sub>x</sub>) emissions and the OC is used to reduce Carbon Monoxide (CO), Volatile Organic compound (VOC) and Formaldehyde (HCHO) emissions. The facility uses a urea-based SCR system so they will not have to store ammonia at the facility, and urea is less hazardous than ammonia. The portable analyzer test for NO<sub>x</sub> is used to verify that SCR is working properly and the portable analyzer test for CO is used to verify that OC is working properly, so it is not necessary to include additional pollutants for the quarterly portable analyzer tests.

To ensure that the emissions from the CHPs are in compliance with NO<sub>x</sub>, CO, VOC, HCHO, and ammonia emission limits in the SMOP, SEPTA must operate the CHPs within the parameters observed during the stack test. For the CHP units, SEPTA is required to continuously monitor and record the pressure drop across the oxidation catalyst, inlet temperature to the oxidation catalyst, and urea injection rate. The pressure drop range for the oxidation catalyst is determined based on

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<sup>2</sup> Unit G-01 failed a stack test in January 2022 for NMNEHC. After the January 2022 test, to determine the cause of the higher emissions of NMNEHC from Unit G-01, the facility performed an investigation focusing on the efficient operation of the engine and the performance of the oxidation catalyst. During inspection of the oxidation catalyst bed consisting of bricks coated with platinum, a thin layer of white ash buildup on the surface of the catalyst bricks was discovered, which may have occurred over time due to a crack in one cylinder head that allowed small amounts of engine lubricating oil to enter the combustion chamber. The buildup was removed using compressed air and a vacuum, and the engine was returned to service and retested February 2022. The Feb 2022 test results indicated that NMNEHC levels were below the permitted limit.

the stack test results. If SEPTA operates the CHPs outside the pressure drop range observed during the stack test, then SEPTA is required to correct it as soon as possible and may be required to conduct additional stack tests on the CHPs to verify compliance with the emission limits.

Additionally, the CHPs are equipped with outlet NO<sub>x</sub> sensors that the facility uses to optimize operation of the CHPs and ensure compliance with the permit limits. SEPTA operates a programmable trim system to maintain the urea injection rate within the fixed parameters of the Distributed Control System (DCS System). The trim system optimizes the urea injection using ambient temperature, pressure, outlet NO<sub>x</sub> sensor readings in addition to engine load. SEPTA used the trim system and stack test results to establish a load map for each CHP. With the load map, if the engine load is high, then the trim system increases urea injection to reduce NO<sub>x</sub> emission, and if the engine load is low, then the trim system decreases urea injection to reduce ammonia slip emission. So, the facility can ensure compliance with the NO<sub>x</sub> emission limit and ammonia slip emission limit by maintaining the urea injection rate within the range determined by the load map and verified by the most recent stack test.

Since the CHPs burn natural gas, and the potential to emit SO<sub>x</sub> and PM emissions from burning natural gas is very low, AMS does not believe that testing for these pollutants is necessary to protect the environment or public health. Testing for these pollutants is also not required by any federal, state, or local regulations.

The proposed SMOP has sufficient monitoring and recordkeeping requirements for the two (2) CHP units to ensure that emissions of various pollutants do not exceed the permitted limits. AMS is confident that the existing emissions limits, monitoring, and recordkeeping requirements are protective of the public health and the environment.

**Comment 6:** Eight (8) commenters want AMS to install an EPA-quality ambient air monitoring station in the Nicetown area to measure various pollutants, ozone, ozone precursors, fine and ultra-fine particulate matter, and other toxics. The commenters want the monitoring results to be available to the public online. One commenter wants the air monitoring to be conducted both on-site and in the surrounding residential areas.

**AMS Response Comment 6:**

Ambient air quality monitoring is beyond the scope of this proposed SMOP renewal. Ambient air quality monitoring is in the scope of AMS Air Monitoring Network Plan.

The Code of Federal Regulations (CFR) Title 40: Protection of Environment, Part 58: Ambient Air Quality Surveillance requires state and local air pollution control agencies to adopt and submit to the Environmental Protection Agency (EPA) Regional Administrator an annual Air Monitoring Network Plan (AMNP, or the Plan) by July 1 annually. The AMNP provides for the establishment and maintenance of an air quality surveillance system that consists of a network of monitoring stations. A proposed AMNP must be made available for public inspection and comment for at least 30 days prior to submission to EPA. Air Management Services (AMS) is the local air pollution control agency for the City of Philadelphia under the Department of Public Health. Before the AMNP is finalized, the proposed Plan is available for public inspection on the City's website at



<https://www.phila.gov/departments/air-pollution-control-board/air-management-notice/> and at AMS offices during normal business hours.

For the Draft 2024-2025 AMNP, AMS has proposed a new monitoring location (HUN, 4210100068) at 2201 W. Hunting Park Ave. This site will enhance neighborhood-scale air monitoring in Environmental Justice areas and monitor PM<sub>2.5</sub>, NO<sub>2</sub>, and Ozone.

Additionally, ultra-fine particulate matter cannot be included as a pollutant to measure, because neither EPA nor PADEP has developed any emission standards or approved test methods for measuring ultra-fine particles.

**Comment 7:** Two (2) commenters want greenhouse gas emissions such as methane from the CHPs to be monitored.

**AMS Response Comment 7:**

There are no federal, state, or local regulations that require greenhouse gas emission monitoring for non-Title V facilities. Additionally, federal, state, and local regulations do not have any permit limits for greenhouse gas emissions from any sources. AMS cannot add a methane emission limit in the SMOP if the emission limit is not established in any federal, state, or local regulations.

**Comment 8:** One (1) commenter wants AMS to not include the de minimis emissions increases in SEPTA's renewal Synthetic Minor permit.

**AMS Response Comment 8:**

The SMOP Section “De Minimis Emissions Increases” must be in the proposed SMOP per state regulation, and AMS cannot remove it. De minimis emission increases are allowed per 25 Pa. Code §§127.14(b) and 127.449. Even though de minimis emission increases are allowed, SEPTA must comply with the synthetic minor emission limits at all times. The proposed SMOP requires SEPTA to certify that the de minimis increases do not exceed SEPTA’s emissions cap or the SMOP status. Any new fuel burning source installed at the facility will need to comply with the facility-wide natural gas and fuel oil usage limits, and SEPTA will have to report fuel usage in annual emission inventory reports.

**Comment 9:** Two (2) commenters want AMS to not include the NO<sub>x</sub> allowance purchase option in SEPTA’s SMOP.

**AMS Response Comment 9:**

This condition must be in the permit per state regulation, and AMS cannot remove it. As per 25 Pa. Code §129.203(c)(1), the allowable NO<sub>x</sub> emissions from a CHP unit, a spark-ignited engine firing natural gas, shall be 3.0 grams per brake horsepower-hour (g/bhp-hr) during the period of May 1 through September 30. Since the PADEP regulation is applicable to the CHPs, AMS must include the condition in the proposed SMOP. However, SEPTA will not need to use the NO<sub>x</sub> allowance purchase option, because the CHPs are applicable to the more stringent emission standards in the Federal NSPS 40 CFR §60 Subpart JJJJ Program. The NO<sub>x</sub> emissions from the CHP are limited to 0.2 grams per brake horsepower hour (g/bhp-hr), which is significantly less than the allowable NO<sub>x</sub> emission limit of 3.0 g/bhp-hr. So, as long as the CHPs pass the stack

tests, the actual NO<sub>x</sub> emissions will be significantly below the allowable NO<sub>x</sub> emission limit. Additionally, the emergency generator is limited to combusting a maximum of 1,850 gallons of diesel fuel per rolling 12-month period, based on 25 hours of operation at maximum capacity. Due to the fuel usage limit, SEPTA will not need to use the NO<sub>x</sub> allowance purchase option for the emergency generator.

**Comment 10:** Twenty-three (23) commenters expressed general opposition to the proposed SMOP and asked AMS to deny renewal of the SMOP.

**AMS Response Comment 10:**

Since SEPTA operates the CHPs in accordance with the applicable regulations and conducts performance tests that demonstrate that the CHPs do not discharge emissions in excess of the emission limits in the issued Plan Approval No. IP17-000009, AMS does not have a cause to deny the proposed SMOP. 25 Pa. Code §127.13b specifies reasons for denying a plan approval application, none of which apply to the CHPs. In the issued Plan Approval No. IP17-000009, AMS included permit conditions to ensure that SEPTA will not violate the regulations applicable to the CHPs and will demonstrate compliance with regulations by conducting performance tests. The proposed SMOP includes all the requirements from the plan approval and modifies some of the requirements to be more stringent, such as modifying the facility-wide fuel usage limits to include fuel usage by insignificant sources and requiring SEPTA to use a load map to ensure compliance with the NO<sub>x</sub> emission limit and ammonia slip emission limit at all times. As long as SEPTA operates in accordance with requirements in the proposed SMOP, AMS does not have a cause to deny the proposed SMOP.

**Comment 11:** One (1) Commenter wanted SEPTA to clean up the neighborhood.

**AMS Response Comment 11:**

The request is beyond the scope of the SMOP Renewal.

**Comment 12:** Four (4) commenters want AMS to impose an emissions limit for ultra-fine particulate matter.

**AMS Response Comment 12:**

Although it is expected the CHP Project will emit ultra-fine particulate matter or UFPs (typically defined as particles smaller than 100 nanometers in diameter) as a result of burning natural gas, neither EPA nor PADEP have established emissions standards for UFPs at this time. After a review of the available literature, AMS has been unable to identify UFP emission factors for gas-burning engines, or otherwise obtain UFP emission factors from the vendor of the proposed CHP units.

Nonetheless, AMS determined that the UFPs are a component of PM<sub>10</sub> and PM<sub>2.5</sub> criteria pollutants that, as discussed above, were subject to air modeling and analysis by AMS and AECOM. As confirmed by this analysis, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from natural gas combustion sources like the CHP units are generally very low. Facility-wide PM<sub>10</sub> and PM<sub>2.5</sub> emissions are only a small fraction of the major source level.

**Comment 13:** Thirty-four (34) commenters expressed concerns that emissions from the CHP units are contributing to poor air quality and negative health outcomes in the surrounding neighborhood.

**AMS Response Comment 13:**

The CHPs emit less criteria air pollutants than the existing fuel oil fired boilers that they replaced. Since SEPTA Roberts Complex continues to be subject to the Synthetic Minor emission limits, the facility continues to be subject to the same NO<sub>x</sub> and VOC emission limits that are in the current SMOP for the facility. So, the CHPs did not increase the emissions level for the facility since the facility continues to be subject to the same NO<sub>x</sub> and VOC emission limits. Rather, by installing the CHPs, SEPTA reduced combustion of fuel oil at the facility and thus reduced SO<sub>x</sub> and PM emissions that would have generated from burning No. 2 oil.

There are various factors that are potentially effecting the air quality of the Nicetown neighborhood. AMS is committed to improving the air quality of the Nicetown neighborhood and the rest of Philadelphia. Ambient air quality monitoring is used to measure pollutants in areas that represent high levels of contaminants and high population exposure. Ambient air quality monitoring is in the scope of AMS Air Monitoring Network Plan, but it is beyond the scope of this proposed SMOP renewal.

**Comment 14:** Eighty-four (84) commenters expressed concern that the facility is located in an environmental justice neighborhood and requested that AMS deny the permit on these grounds. One commenter stated that to allow the facility to operate would be a violation of the 1964 Civil Rights Act.

**AMS Response Comment 14:**

AMS acknowledges that the neighborhood surrounding the SEPTA facility qualifies as an “Environmental Justice Area” pursuant to both the City’s and Commonwealth’s Environmental Justice Policy. However, AMS cannot deny the proposed SMOP because the facility is in an Environmental Justice area. Additionally, the facility is taking emission limits that require operation below the “Major Source” threshold. Accordingly, the enhanced public participation requirements of the Environmental Justice Policy do not automatically apply. See AMS Environmental Justice Pamphlet.

Nonetheless, AMS did take steps to enhance the public’s participation in the Operating Permit process for the SEPTA Roberts Complex that went beyond the minimum requirements. See 25 Pa. Code Secs. 127.44, 127.45. These efforts included many of the same steps provided by the Environmental Justice Policy. These steps included:

- Creation of a plain language summary of the project
- Publication of the plain language summary, the proposed Operating Permit, notice about the proposed Operating Permit, Technical Review Memo and other supporting documents on AMS’s website (<http://www.phila.gov/health/AirManagement/PublicMeetings.html> )

- Ensuring copies of the notice, Technical Review Memo, proposed Operating Permit, plain language summary, and supporting documents were made available in hardcopy at public libraries in the vicinity of the facility (i.e. Falls of Schuylkill and Nicetown-Tioga Branches of the Philadelphia Free Library).

SEPTA is taking emission limits that require operation below the “Major Source” threshold. The operating permit has monitoring and recordkeeping requirements to ensure that the facility operates within the permitted limits. The SMOP provides reasonable protections for public health and safety, and the environment. These reasonable protections include but are not limited to the establishment of emission limits, work standards, testing requirements, monitoring requirements, recordkeeping requirements, and reporting requirements. AMS firmly believes that the SMOP as proposed is protective of public health and safety, as well as the environment.

**Comment 15:**

Three (3) commenters want SEPTA Roberts Complex facility to go through a “Complex Source Review” permit process and measure mobile emissions from the vehicles on the property.

**AMS Response Comment 15:**

The SMOP renewal does not trigger a Complex Source Review Permit under AMR X. Complex Source Review is applicable to new or modified parking facilities within the Philadelphia Metropolitan Center with a final total capacity greater than 250 motor vehicles and new or modified Parking Facilities outside of the Philadelphia Metropolitan Center with a final total capacity greater than 500 motor vehicles. A Complex Source review is also triggered if the modified Complex Sources are projected by the Department to generate peak rate traffic in excess of 100 motor vehicles per hour; 25 diesel buses per hour; or 12 heavy duty diesel vehicles per hour. The SMOP renewal or installation of the CHPs does not add any new or modified parking facilities to the site and AMS does not project an increase to the traffic rate in excess of the threshold that triggers a Complex Source Review.

**Comment 16:**

One (1) commenter indicated that they were in favor of the SMOP and believes that the CHPs increase efficiency of energy generation and distribution and reduces pollution from the alternatives, including the coal burned to generate the needed electricity that would have to be brought in from elsewhere.

**AMS Response Comment 16:**

Thank you for the comment.