

NEIGHBORS AGAINST THE GAS PLANTS
DECEMBER 28, 2017 APPEAL TO A.M.S. PERMIT for SEPTA CHP PROJECT

As director of “Neighbors Against the Gas Plants,” an organization of residents, centered in lower Germantown, bordering Nicetown, I signed this appeal, as co-appellant with the core members of NAGP as listed, and with supporting individuals, who requested by email, phone call, and by signing a sheet of paper explicitly about the appeal, to be included as appellants to all, and any permits, granted to SEPTA, for installation of a Combined Heat and Power Plant or CHP at 4301 Wissahickon Avenue, Parcel P .

The majority of appellants live within a mile of the site. We are determined to defend our PA Constitutional right (Article 1, Section 27) to breathe clean air, without the direct consequence of disease. Appellants who live more than a mile away are in two categories. Over half signed on because their children attend a school close to the site. They wish to protect their children from further exposure to pollution while at school. The rest of the more distanced appellants are Philadelphia residents who object to the project because they do not want others to be hurt, they do not want their own air quality downgraded, and contrary to SEPTA’s claims, they object because the CHP will add to rising global temperatures, and therefore climate change, in the long term.

The listed appellants understand that SEPTA’s CHP project is a capitulation to political pressure for SEPTA to become a steady natural gas customer. SEPTA does not have a dire need to make its own electricity at this time. `

We consider this polluting proposal to be a continuation of obvious environmental racism, especially in Nicetown, but also Tioga, and Germantown. The vast majority (between 92% to 98% depending on neighborhood) of those affected are African American, and the area already suffers from high levels of air pollution.

We discovered the existence of the AMS permit on November 30, as a result of looking at the AMS website, in search of another document.

TABLE OF CONTENTS:

- A. SUMMARY STATEMENT: HEALTH ASSAULT
- B. SEPTA’S PUBLICALLY EXPRESSED MOTIVATION DOESN’T MATCH REALITY
- C. INNAPPROPRIATE COMPUTER MODEL VERIFIES NOTHING APPROPRIATE
- D. INCONSISTENCIES IN AMS AND SEPTA DOCUMENTS SHOW RECKLESSNESS
- E. REQUESTS FROM FOUR CITY COUNCIL PERSONS ARE COURAGEOUS

A. SUMMARY STATEMENT

SEPTA’s CHP project would constitute a public nuisance, because it would, at minimum, irritate the organs and tissues of both healthy, and medically vulnerable people, who live, work, or study within the surrounding mile, or beyond, depending on wind patterns. 37,000 people reside within the surrounding mile, including most appellants to this appeal.

The project would add approximately 67 tons of pollutants to the air each year, including higher levels of Nitrogen Oxides, Fine Particulates, Volatile Organic Compounds, and Carbon Monoxide . A year round rise in pollution would exacerbate existing diseases linked to high particulate and ozone levels.

Summer months would be the worst for us. According to the AMS permit, page 4-5, # 19 a,b,and c, the facility is allowed to exceed “allowable NOx limits during ozone season.” From May 1st to September 30th. SEPTA would be allowed to force neighbors to suffer high ozone levels in summer months, in exchange for SEPTA paying a fee to a government agency. “NOx allowances may be purchased to demonstrate compliance.”

Since the year 2000, The World Health Organization, as well as several recent University sponsored health studies, clearly report the relationship between gas plant emissions and disease. The CHP would sit in Nicetown, which already has elevated levels of pollution and disease. Those of us living next door in Germantown and Tioga also have elevated levels of asthma and other diseases, though not as high as Nicetown.

According to the United States Environmental Protection Agency, Nicetown has a higher fine particulate level than 78% of neighborhoods across the nation, and more exposure to diesel exhaust than 90% to 95% of neighborhoods. The Philadelphia Health Management Corporation, in a 2012 report, found that 31% of children in 19140 were diagnosed with asthma. 31% is significantly higher than Philadelphia’s city average of 23%, Southeastern PA’s average of 18%, and the US average of 8.6% per CDC, 2014. Children living in the 19140 zip code currently have some of the highest rates of asthma hospitalization in the city.

In addition to asthma, the CHP project would exacerbate several other diseases including high blood pressure, heart disease, diabetes, kidney disease, low birth rates, dementia, and cognitive growth problems - the medical label for plaque in children’s brains causing learning disabilities.

SEPTA’s CHP emissions would not only exacerbate existing disease conditions, but also it would create a tipping point for a section of the population who will develop symptoms for the first time. Creating disease violates individual freedoms and is creating more than a “public nuisance.”

Additional ozone and particulate levels in the affected communities would worsen an already existing cultural burden on a specific population. A higher statistic of children living in the area would have their education interfered with by illnesses. This is a partial list of 15 schools within 1.5 miles of the plant, the closest being 2 blocks away. The list does not include pre K schools, day care centers, and church run schools throughout the area. It does include two university campuses within range, whose young adult populations would battle higher pollution levels.

1. Wissahickon Charter School Fernhill Campus, at 4700 G Wissahickon Ave 19144
2. Edward T. Steel School at 4301 Wayne Ave, 19140
3. Simon Gratz High School and Gratz Prep Middle School at 1798 Hunting Park Ave, 19140
4. John B. Kelly School at 5116 Pulaski Ave, 19144
5. Edwin Fidler Academics Plus School at 140 W. Seymour St. 19144
6. Mastery Charter Pickett High School Campus 5700 Wayne Ave. 19144
7. Thomas Mifflin School at 3500 Midvale Ave, 19129
8. William Penn Charter School at 3000 W. School House Ln 19144
9. Eastern Academy Charter School 3300 Henry Ave 19129
10. Germantown Friends School at 31 W Coulter St, 19144
11. Greene St. Friends School at 5511 Greene St, Philadelphia, PA 19144
12. The Waldorf School at 6000 Wayne Ave 19144
13. Queen Lane Montessori School 433 West Queen Lane 19144
14. Thomas Jefferson University E. Falls Campus at 4201 Henry Ave 19144
15. Drexel University College of Medicine at 3300 Henry Ave 19129

B. SEPTA’S WIDELY PUBLICIZED STATED REASONS FOR THE PROJECT, A CONTINGENCY PLAN IF DISASTER BEFALLS THE CITY, IS A CAREFULLY CRAFTED FAIRY TALE, TOLD BY A PUBLIC ENTITY TO THOSE WHO THE ENTITY IS CHARGED TO SERVE. THE PLAN IS NOT WORTHY OF CONSIDERATION.

It’s absurd or criminal to add toxins to our already over-burdened neighborhood, so that commuters will not be inconvenienced once every two years. The CHP, would operate most of the year, but SEPTA’s publicly stated purpose for the CHP is that it is needed for back-up electricity, serving SEPTA’s regional rail lines, which interface at Wayne Junction. According to SEPTA, its regional rail line experiences a power outage approximately once every two years. Therefore the vast majority of the time, the plant would not be operating in the capacity for its publicly stated purpose, and all of that time, would create public distress.

SEPTA has also publicly stated that this CHP is needed if PECO power is lost, due to a severe weather event, caused by climate change. The main concern, expressed by SEPTA, is losing power during a “severe heating event.” The City is obligated to perceive and prepare for a severe heating event situation, with the public welfare in mind. A CHP burning during such an event, would pose a danger to the public. People in the city would be without air conditioning, and ozone levels would be much higher than normal. During severe hot weather, burning natural gas would add to elevated ozone and hot gases in our neighborhoods, causing severe illness, and/or possible fatalities.

The true practical, yet unnecessary use for the project, is revealed in an obscure document, posted 8 days before the AMS granted its plan approval: the “Revised Technical Review Memo,” p. 1 Project Description, paragraph 2. It says that the CHP is to provide base electrical load for the regional rail. SEPTA already has adequate electrical power from PECO/Exelon for its regional rail line.

C. AN INNAPPROPRIATE FLAWED COMPUTER MODEL, AS DESCRIBED IN THE AMS TECHNICAL REVIEW MEMO, WAS USED TO PROVE THAT THE PLANT’S EMISSIONS WOULD BE BENIGN.

The AERSCREEN model was based on a one-time air dispersion for nitrogen oxide over a 24-hour period. It doesn’t consider the health impact of a 24-hour, 7 day a week gas plant over the years and its likely impact on the community. *See attached memo from Tammy Murphy, Medical Advocacy Director for Physicians for Social Responsibility.

D. INCONSISTENCIES IN AMS AND SEPTA DOCUMENTS ARE CAUSE FOR PUBLIC LACK OF CONFIDENCE IN THIS PLAN

If there is difficulty with any link, refer to the main AMS website where all documents are posted.

<http://www.phila.gov/health/airmanagement/PublicMeetings.html>

1. The public was manipulated to mount a response to an incomplete picture. Before the Public Comment Period, the public was not informed about HAPS (Hazardous Air Pollutants) some of which cause cancer.

a. On November 21, AMS posted a “Revised Technical Review Memo” on its website. It contains new charts of additional emissions, and related cancer risks, not previously listed in other documents.

- Page 2, Table 2: Formaldehyde and Ammonia Slip are listed as emissions per hour.
- Page 2, Table 3: tonnage per year of HAPS (Hazardous Air pollutants) is listed 2 ways: HAPS not including formaldehyde/ HAPS including formaldehyde.
- Pages 3-4: a chart of 36 new chemicals considered to be HAPS. These 36 chemicals were quietly added to emissions as a website post, 5 months after the public comments ended, and 8

days before the AMS permit was granted: formaldehyde, tetrachloroethane, trichloroethane, butadiene dichloropropene, methylnaphthalene, trimethylpentane, acenaphthene, acenaphthylene, acetaldehyde, acrolein, benzene, benzo(b)fluoranthene, benzo(e)pyrene, benzo(g,h,i)perylene, biphenyl, carbon tetrachloride, chlorobenzene, chloroform, chrysene, ethylbenzene, ethylene dibromide, fluoranthene, fluorine, methanol, methylene chloride, n-hexane, naphthalene, PAH, phenanthrene, phenol, pyrene, styrene, tetrachloroethane, toluene, vinyl chloride, and xylene.

- Page 7, a chart of HAPS emission per year, and their cancer risks.

<http://www.phila.gov/health/pdfs/airmanagement/Revised%20Technical%20Review%20Memo.pdf>

b. A “Corrected Scan of Attachment D” to SEPTA’s original application was posted after the June 27th public comment period, but placed under documents for May. When SEPTA’s application was originally posted in May, Attachment D had been scanned incorrectly (paper folded over) and was not readable. Attachment D is two charts.

The 1st chart shows SEPTA’s current emissions from the bus depot compared to emissions predicted for the CHP. It shows that NOx, Particulates, VOCs, and CO emissions will increase. It claims that SOx and lead will decrease. The 2nd chart includes a summary tonnage for HAPS.

<http://www.phila.gov/health/pdfs/airmanagement/SEPTA%20Attachment%20D%20Corrected%20Scan.pdf>

2. SEPTA’s CHP in practice, would operate as a “major plant” for most of the year, then shut down for a number of days to keep yearly emissions under the “synthetic minor plant” limit. People near the plant would experience consequences of being next to a “major facility” which is unregulated as such, for most of the year. Additionally, there are too many mistakes and omissions in the documents to trust that the total yearly omissions can be controlled reliably to stay within range of the synthetic minor category.

Synthetic minor applications do often contain borderline emission levels. In this case, NOx emissions are borderline. 25 tons of NOx/year would put SEPTA’s CHP into the major category, and subject it to more rigorous regulations. SEPTA’s CHP, if allowed to operate to capacity, would emit over 25 tons of NOx/year, and thus, place it into the major category. A scenario of SEPTA’s CHP exceeding 25 tons, is quite possible, because there is no crystal clear plan for avoiding it.

a. The AMS/SEPTA Strategy to limit NOx emissions below 25 tons/year is to shut the CHP down for a portion of the year, and operate their boilers to heat the bus depot. However, at no point in any document, is a calculation made to indicate how many days a year the CHP would need to be shut down. The plan to rely on boilers for part of the year to reduce emissions is in:

- SEPTA’s Plan Approval Application, May 2017, page 1, paragraph 2,
- Revised Technical Review Memo, November 2017 p. 1 Project Description paragraph 2.
- Indirect references to the plan to use boilers are in the AMS Final Plan Approval of November 29, 2017, p 2, #16e and p. 5, # 19c mentions “other units.”

<http://www.phila.gov/health/pdfs/Septa%20Plan%20Approval%20App.pdf>

<http://www.phila.gov/health/pdfs/airmanagement/Revised%20Technical%20Review%20Memo.pdf>

<http://www.phila.gov/health/pdfs/airmanagement/Issued%20Plan%20Approval%20.pdf>

b. SEPTA/ AMS Method of Calculating Emissions from Boilers is Unreliable. In the AMS Final Plan Approval, page 4, #16c, fuel oil usage for boilers is limited to 116,970 gallons/year.

Limiting fuel to limit emissions from old oil burners is not the main problem, until they falter, but right now they seem to be working. At this time, we can be sure that AMS and SEPTA calculations for emissions from boilers have been contradictory, and therefore it is questionable how the fuel limits were decided upon.

- SEPTA's application, Attachment D, p. 2: Current PTE for NOx is 31.15 tons/year.
- AMS InterOffice Memo, from May: Past PTE without Installation of the CHPs is 21.488 tons/year.

c. We Lack Confidence in AMS/SEPTA stated emissions from the CHP itself, when there are five versions of information across the posted documents. It is difficult to trust any one of these claims. Since NOx is the borderline emission, here are the 5 disparities for NOx:

- SEPTA plan approval application (May) p 42: Emissions for NOx is 21.74 tons /year
<http://www.phila.gov/health/pdfs/Septa%20Plan%20Approval%20App.pdf>
- Corrected scan, Attachment D from the above document, p. 3: 23.61 tons of NOx/ yr.
<http://www.phila.gov/health/pdfs/airmanagement/SEPTA%20Attachment%20D%20Corrected%20Scan.pdf>
- SEPTA Plan Approval Application(November) p 42: Combined CHP/Boiler emissions for NOx :24.41 tons/ yr
<http://www.phila.gov/health//pdfs/airmanagement/Issued%20Plan%20Approval%20.pdf>
- Technical Review Memo, May 2017. P. 2 Table III "Project Emissions"
NOx emissions, calculated from both the CHP (gas plant) and limited use of their boilers. 24.846 tons of NOx/ yr

<http://www.phila.gov/health//pdfs/SEPTA%20Roberts%20Technical%20Review%20Memo.pdf>

- Revised Technical Memo (Nov) and Plain Language Document (May) 21.8 tons of NOx/ yr

<http://www.phila.gov/health//pdfs/airmanagement/Revised%20Technical%20Review%20Memo.pdf>

<http://www.phia.gov/health//pdfs/SEPTA%20Roberts%20Complex%20Plain%20Language.pdf>

d. The AMS Permit is too "Liberal:"

- When calculating tons of emissions during ozone season, the AMS Final Plan Approval, p 4-5 #19 a,b,c, rounds off numbers. The document considers less than 1/2 a ton of NOx to be 0 tons, and more than 1/2 a ton to be a ton. Rounding off numbers may be common practice for accounting in banking, or for assigning government fines, but when calculating health risk, 0.49 tons of NOx on a hot day could make or break the next 50 asthma attacks in the affected community.
- The public appreciates an AMS adjustment. Its Final Plan Approval p 5 # 22 has proposed replacing an annual emissions test, with a quarterly test. However, the original unreliable dynamic remains the same.

"The Permittee shall perform quarterly NOx and CO portable analyzer tests on each CHP using an AMS-approved procedure to verify that SCR and OC for each unit are working properly. (Replaces the annual catalytic activities test requirement.)"

As expressed in the June 22 Energy Justice Network Letter to AMS:

"SEPTA, instead of an outside environmental agency, is to be trusted to monitor its own project,.. Annual (or, in this case tri-annual) stack testing is like having a speed limit, but allowing drivers to drive with no odometer, and just setting a speed trap once a year, while setting up signs warning 'speed trap ahead' to warn drivers to slow down... and having the driver's brother run the speed trap

(the companies do their own testing). In reality, smokestack facilities are 'speeding' many other days of the year, with excessive emissions during startup, shutdown and malfunction times, when testing is not done."

- **One person's interpretation of "good" is not identical to another's.** Page 4, #18 states, "The Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions."

e. Public Kept In The Dark: The combination of emissions from the CHP and oil boilers was hidden from the public in two ways:

- SEPTA's public presentation Oct. 6th 2016, claimed that the boilers would be retired. Slide 8 <http://www.septa.org/sustain/pdf/Powering-Transit-for-a-Sustainable-Futurev2.pdf>
- The chart showing the combined emission information of Boilers and CHP was removed from the Revised Technical Memo posted November 21, 2017

<http://www.phila.gov/health//pdfs/airmanagement/Revised%20Technical%20Review%20Memo.pdf>

E. FOUR CITY COUNCIL PERSONS HAVE REQUESTED IN WRITING THAT AMS EITHER DENY THE PERMIT FOR SEPTA'S CHP PROJECT, OR DELAY IT UNTIL A COMPREHENSIVE HEALTH STUDY CAN BE CONDUCTED IN THE AFFECTED COMMUNITY. These four councilpersons have taken some political risk, considering the deals that SEPTA made in Harrisburg in 2012 with Representative Stan Saylor, and in 2016 with Philadelphia City Council President Darryl Clarke, on behalf of PGW revenues, at the City Council Budget Hearing. On both occasions, SEPTA was pressured to commit to building gas plants in order to become a steady natural gas customer. The court will hopefully appreciate the four council members' courage to express their concerns on our behalf. See the attached four letters from councilpersons, a Philadelphia Inquirer about the deal struck in 2012, and an excerpt from the 2016 transcript of City Council's budget hearing.

Thank you for your careful consideration of the above,

Lynn P. Robinson Med
Director: Neighbors Against the Gas Plants