

US EPA ARCHIVE DOCUMENT



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029**

Response to Comments

Architect of the Capitol

**Capitol Power Plant
25 E Street S.E.
Washington, D.C.**

**EPA Permit
Permit Number EPA-R3-PAL-001**

Introduction

On August 29, 2012, the Environmental Protection Agency (EPA) Region III published a notice in the *Washington Times* for public review and comment of a proposed Plantwide Applicability Limit (PAL) permit for the Capital Power Plant (CPP) located in Washington, D.C. The comment period ended on October 1, 2012. In addition, EPA held a public hearing on October 1, 2012 at the Washington Council of Governments. As required by Part 124 of Title 40 of the Code of Federal Regulations (C.F.R.): “Procedures for Decision-making,” EPA has prepared this document known as the “response to comments” (RTC) that describes and addresses the significant issues raised during the comment period.

The Fact Sheet for the CPP PAL permit is a final document and has not been changed. Comments pertaining to the Fact Sheet are noted and EPA’s responses are included in the RTC. After a review of the comments received, EPA has made a final decision to issue this permit. The final permit regulates emissions of particulate matter less than 10 micrometers (PM₁₀), nitrogen oxides (NO_x) as the indicator for nitrogen dioxide (NO₂), and greenhouse gases (GHGs) under their respective PALs. This permit does not authorize the construction or operation of any specific project. Rather it allows the CPP to make future changes at its facility without triggering the requirements of the Prevention of Significant Deterioration (PSD) program, so long as the facility’s emissions stay below the PALs.

The final permit is substantially identical to the draft permit that was available for public comment. Although EPA’s decision-making process has benefitted from the various comments and additional information submitted, the information and arguments presented did not raise any substantial new concerns that would necessitate making changes to the permit.

The final permit and RTC are available on EPA’s web site at:
http://www.epa.gov/reg3artd/permitting/capitol_power.html

EPA is notifying the applicant and each person who submitted comments or requested notice of the final permit decision. Copies of the final permit may also be obtained by writing or calling EPA between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays:

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Extensive comments were submitted by various parties during the public comment period. In addition, EPA received oral comments at the public hearing held on October 1, 2012. The full text and transcript of the comments are available on EPA Region III’s webpage for this permitting action.

EPA has organized the comments and our responses topically since many commenters raised the same or similar points. The following index provides a cross reference for each party’s specific comments and EPA’s topically summarized comments and responses.

Commenter	Designation
Written Comments	
David C. Bender, Sierra Club	C1
Eric Miller, NAACP	C2
Chrissy Camacho Borsky, GE Aero derivatives and Gas Engines	C3
Numerous Commenters via email	C4 ¹
Comments Submitted at Public Hearing	
Mark Kresowik, Sierra Club	C5
Irv Sheffey, Sierra Club	C6
Jim Dougherty, Sierra Club	C7

Comment #1 (C1)

Because EPA is relying on the authority of 40 C.F.R. § 52.21 to issue this permit, this permit must contain all the requirements of this section, presumably including the requirements of 40 C.F.R. § 52.21(j) through (r). Similarly, had the permit been issued under a state minor New Source Review (NSR) program or a title V program, all of the requirements of those programs would apply to the PAL permit. Since EPA has no other recourse but to rely on 40 C.F.R. § 52.21 to issue the permit, as opposed to these other permitting mechanisms, and a PAL permit does not waive or otherwise affect the requirements applicable to the permit establishing the PAL, the PAL permit must meet all the requirements of 40 C.F.R. § 52.21 and only future changes at the facility would be excluded from the requirements of 40 C.F.R. § 52.21(j) through (r).

Comment Response #1

EPA disagrees with the commenter’s statement that the permit must meet *all* 40 C.F.R. § 52.21 requirements. EPA – or any permitting authority – must comply with the requirements of 40 C.F.R. § 52.21, or the corresponding regulations approved in a State Implementation Plan (SIP), to establish a PAL, regardless of the mechanism used to issue the PAL. However, PALs are

¹ EPA received approximately 200 comments as part of a public e-mail campaign that each made the same essential arguments. Accordingly, we have treated them as one comment in this RTC.

exempt from certain requirements in 40 C.F.R. § 52.21 by virtue of the language in the PAL regulations themselves. That is, the federal regulations provide that only portions of 40 C.F.R. § 52.21 will apply when issuing a PAL. Specifically, 40 C.F.R. § 52.21(a)(2)(v) states:

(v) For any major stationary source for a PAL for a regulated NSR pollutant, the major stationary source shall comply with the requirements under paragraph (aa) of this section.

This is an action under subsection (v) to issue a PAL permit for certain regulated NSR pollutants emitted by the CPP in the first instance, and neither subsection (v) nor subsection (aa) require application of § 52.21(j) – (r). We also note that the PAL permit does not authorize any specific construction at the facility. In fact, the PALs in this permit are established independent of the Architect of the Capitol’s (AOC) planned cogeneration project and will apply regardless of whether the AOC ever moves forward with the installation of the cogeneration units or any other project. Therefore, the requirements of paragraphs (j) through (r) are not applicable to the CPP PAL permit under § 52.21(a)(2)(ii), rather the requirements of paragraph (aa) apply under § 52.21(a)(2)(v).

We also note that extending the logic used by the commenter(s), those permitting authorities that rely on 40 C.F.R. § 52.21 to issue PAL permits (e.g., delegated state programs) would have to require the facility to impose Best Available Control Technology (BACT) on all existing emitting units and perform an air quality analysis on the impact of future changes, even if they are not yet known. Facilities located in such areas would be at a considerable disadvantage compared to those facilities located in areas where permitting authorities that can rely on their minor NSR or title V programs to issue PAL permits, since, presumably, those minor NSR or title V permits would not be required to meet *all* of the requirements of 40 C.F.R. § 52.21. Such an outcome would be an untenable reading of 40 C.F.R. § 52.21 and thus provides additional support for relying on the general authority in that section to issue PAL permits that comply with the requirements of § 52.21(aa).

EPA agrees with the commenter’s statement that “[t]he PAL, once established, only allows future modifications to be determined not to constitute major modifications and therefore not to need future PSD permits...” All necessary permits need to be in place before a source can “begin actual construction” on a major source or major modification. *See* 40 C.F.R. § 51.21(a)(2)(iii). To EPA’s knowledge, CPP has not begun actual construction on the planned cogeneration units. As long as this remains true as of the PAL effective date, any emission increases from the cogeneration units would be covered under the PAL permit, which the commenter agrees would not constitute a major modification under a PAL.

The regulations allow that a PAL permit is a presumptive and alternative applicability determination under 40 C.F.R. § 52.21(a)(2) and refers the reader to the requirements that apply to PALs, namely 40 C.F.R. § 52.21(aa). EPA may approve the use of PALs for “any existing major stationary source or any existing GHG-only source if the PAL meets the requirements in paragraphs (aa)(1) through (15) of this section.” See 40 C.F.R. § 52.21(aa)(1)(i). The CPP meets the criteria of being an existing major stationary source, and the commenter has not cited any specific requirement within 40 C.F.R. § 52.21(aa)(1) to (15) or Part 124 that is not included in the PAL permit or that was not performed as part of the procedures for decision making for EPA to address in the response. Accordingly, EPA is properly issuing this PAL permit in accordance with the authority generally provided by 40 C.F.R. § 52.21 and Part 124, and is not also required to comply with the specific requirements for PSD permits provided in 40 C.F.R. § 52.21(j) through (r).

Comment #2 (C1, C5)

The proposed combustion turbine project at the CPP also triggers nonattainment NSR as currently proposed, and the District’s SIP does not include a PAL provision for nonattainment NSR. Given that the proposed modifications for the turbine project will occur contemporaneously with the proposed PAL permit, EPA cannot issue a PAL permit under 40 C.F.R. § 52.21 until the project complies with the nonattainment NSR program in the D.C. SIP, per 40 C.F.R. § 52.21(j)(1).

Comment Response #2

We begin by noting that, as explained above, the requirements of 40 C.F.R. § 52.21(j) do not apply to issuance of this PAL permit.

Moreover, EPA disagrees with the commenter’s assertion that, as a general matter, the issuance of the PAL permit for attainment pollutants currently emitted by the CPP is precluded by the District’s nonattainment NSR program and the timing of any permits for nonattainment pollutants required by the District. A PAL does not need to address all pollutants, and the PAL issued by EPA in this case only addresses those pollutants for which the area is in attainment. To the extent the AOC undertakes a turbine project at the CPP after this permit is issued, they will have to comply with the requirements of the District’s program. However, the requirement to receive the necessary nonattainment permits required by the District’s program does not affect the EPA’s ability to issue a PAL permit under 40 C.F.R. § 52.21 to address the current emissions of attainment pollutants from the facility. EPA wishes to reiterate that this PAL permit authorizes no specific construction at the facility – the PALs in this permit are established independently from the planned cogeneration project and will apply regardless of whether the AOC ever moves forward with the installation of the cogeneration units or any other project.

We also note that the facility is required to comply with all applicable federal and local regulations. The commenter seems to assert that the facility will somehow begin construction on the planned combustion turbine project while this proposed permit is still pending. However, the facility cannot begin any such construction before both the PAL permit and any required District permits are finalized. As explained above, the PAL permit – once issued – would be an alternative applicability process under 40 C.F.R. § 52.21(a)(2) such that any increases of applicable pollutants from the planned cogeneration project would be covered under the PAL permit and would not constitute a major modification under a PAL. However, that alternative applicability process is only available once the permit is finalized, so the CPP must wait until after that time to begin construction if they want to rely on that alternative process. In addition, as explained above, even if this PAL is issued, no project can go forward unless it also complies with the requirements of the District’s nonattainment program. Accordingly, there is nothing in the permit record to suggest that issuance of the PAL is precluded at this time.

Comment #3 (C1, C5)

Pursuant to 40 C.F.R. § 52.21(k) and (m) the AOC is required to demonstrate that emissions will not cause or contribute to a violation of ambient air quality standards.

Comment Response #3

The commenter’s reliance on 40 C.F.R. § 52.21(k) and (m) indicates that this comment is an extension of Comment #1, which argued that EPA’s initial PAL permit must comply with *all* the requirements of 40 C.F.R. § 52.21, including (k) and (m). As indicated in our response to Comment #1, since this PAL permit does not authorize the construction of a new major stationary source or the major modification of an existing stationary source, the requirements of 40 C.F.R. § 52.21(j) through (r), including the specific ambient air requirements of (k) and (m), are not applicable. This permit only establishes PAL levels for specific attainment and PSD pollutants and will conform to the requirements of 40 C.F.R. § 52.21(aa).

Comment #4 (C1)

Commenter states that the PM/PM₁₀/PM_{2.5}, NO_x, and sulfur dioxide (SO₂) baseline actual emissions improperly rely on generic emissions factors contained in EPA’s AP-42, *Compilation of Air Pollutant Emission Factors* that are not representative of actual emissions. Furthermore, commenter states that the permit record does not include an analysis that assures that the source type and design, controls and raw material input are those of the source(s) analyzed to produce the emission factor. Commenter also specifically states that EPA assumed a moisture factor “far outside” of the factor used in testing for development of the emission factor for ash handling facilities and similarly the silt content of the CPP flyash is higher than in the sources on which the AP-42 factor is based. Therefore, the quality rating of the AP-42 emission factor is not representative of CPP’s flyash emissions and should be lowered. Commenter only submitted specific comments on ash handling emissions.

Comment Response #4

EPA did not review baseline actual emissions for PM, PM_{2.5} or SO₂, since the AOC did not submit an application for a PAL for those pollutants. Therefore, the comments relating to PM, PM_{2.5}, and SO₂ are not relevant for the proposed permit.

With respect to the PM₁₀ and NO_x baselines, the commenter does not include any information indicating that any emission factors used, other than for ash handling facilities, would not be representative of emission sources at CPP. Nor is EPA aware of any information that would indicate that these emission factors are inappropriate. The regulation at § 52.21(aa)(3)(ii) requires a PAL application to include calculations of baseline actual emissions with supporting documentation. As explained below, the AOC has provided their baseline emission calculations with appropriate explanations, which sometimes included the use of emissions factors, in which case they provided the basis for those factors, including site specific information as needed.

With regard to the NO_x baseline, Boilers 1 through 7 have continuous emissions monitors (CEMs) for NO_x and were the only units included in the NO_x baseline emissions. Consequently, 100% of the baseline actual emissions used to establish the PAL for NO_x are based on actual CEMs data. Therefore, the commenter is simply incorrect in asserting that “nitrogen oxides (NO_x)...baseline emissions were calculated from AP-42 factors.”

With regard to the PM₁₀ baseline, Boilers 1 and 2 produce most of the PM₁₀ emissions at the facility.² Although CPP used AP-42 to calculate PM₁₀ baseline emissions from Boilers 1 and 2, EPA is requiring stack testing for PM₁₀ on those two boilers and clearly stated in the fact sheet that adjustment of the PAL level will be required, if necessary, depending on the results of this testing (*See* Fact Sheet, Page 18), and the proposed permit included a condition to allow for such an adjustment (*See* condition 1.d.i of the proposed permit). The only other sources contributing to the PM₁₀ baseline emissions that relied on AP-42 emissions factors to calculate PM₁₀ emissions were Boilers 3 through 7 and the cooling tower. *See* Fact Sheet, page 13. The commenter stated that AP-42 recommends reviewing the latest literature and technology to be aware of circumstances that might cause such sources to exhibit emission characteristics different from those of other, typical existing sources, and also to assure that the subject source type and design, controls and raw material input are those of the source(s) analyzed to produce the emission factor. EPA is not aware of any technology or literature that would cause us to reconsider the use of AP-42 emissions factors for these units, nor has the commenter provided such documentation. To EPA’s knowledge, the emissions factors used are consistent with the units’ source type, design, controls, and raw material input, and we therefore view the use of these emissions factors as justified in this instance.

² Boilers 1 and 2, combined, contributed approximately 17.8 out of 27.8 tons per year towards PM₁₀ baseline emissions

The commenter did specifically point to the use of AP-42 emissions factors for ash handling as being problematic, and cited to differences in the moisture content and silt content of the flyash used to develop the emissions factor and those at CPP. From this comparison, the commenter drew the conclusion that the emissions factor should receive a “C” rating, and argued that it is not a “reasonably representative” emissions factor. While EPA acknowledges that AP-42 recommends downgrading an emission factor’s rating for differences in both the moisture content and silt content of the flyash, EPA disagrees that this results in the use of the factor not being “reasonably representative” of emissions from the ash handling at CPP. Using AP-42 emissions factors to calculate PM₁₀ baseline emissions from ash handling resulted in a contribution of approximately 8.7×10^{-7} to 6×10^{-4} lbs/month towards the baseline. See Fact Sheet, page 11. In fact, these emissions are so insignificant that they had no effect on the PM₁₀ baseline.³ Given that the emissions from ash handling constitute such an insignificant portion of the baseline PM₁₀ emissions, only an extreme adjustment of the emissions factor would have any effect on baseline emissions, and the commenters have not provided any specific evidence that such an extreme adjustment is necessary in this case. Accordingly, there is nothing in this comment that would lead to adjustment in either the PM₁₀ and NO_x baselines, or the PALs ultimately calculated from them.

Comment #5 (C1, C2, C4, C5, C6, C7)

Commenters claim that the EPA has not sufficiently demonstrated that the impacts from this proposal will not have disproportionately adverse impacts on minority populations and low-income populations, as required by Executive Order 12898. In the case of the CPP permit, the commenters state that there is no site-specific monitoring data for PM₁₀ or NO₂ that supports the conclusion that the increase authorized by the PAL permit will not impact continued compliance with the National Ambient Air Quality Standards (NAAQS). The comments suggest that, under the Executive Order, EPA must conduct site-specific ambient monitoring before the Agency may issue the permit, to ensure “continued” compliance with the NAAQS.

Comment Response #5

EPA’s Environmental Appeals Board (EAB) has held that environmental justice issues must be considered in connection with the issuance of federal PSD permits issued by EPA Regional Offices and states acting under delegations of federal authority. See, e.g., *In re Prairie State Generating Company*, 13 E.A.D. 1, 123 (EAB 2006); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 174-75 (EAB 1999) (“Knauf I”). EPA Regional Offices or their delegates in the states have for several years incorporated environmental justice considerations into their review of applications for PSD permits. The EAB reinforced the importance of completing an environmental justice analysis in a recent opinion discussed further below. See, *In re: Shell Gulf*

³ PAL levels for this permit only were calculated out to the tenth of a ton, therefore emissions as small as 10^{-7} and 10^{-4} lbs/month essentially contribute zero tons per year to the PAL baseline after rounding. See page 10 of AOC’s application.

of Mexico, Inc. and Shell Offshore, Inc., OCS Appeal Nos. 10-1 to 10-4, Slip Op. at 63-4, (EAB December 30, 2010) (“Shell II”). Compliance with the NAAQS is relevant to an environmental justice claim to the extent that the NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics.

At the outset, the PAL permit being issued to CPP by EPA does not allow an increase in emissions above currently permitted levels. The CPP is currently able to emit pollutants in amounts up to the levels authorized by its existing operating permit. For instance, Boilers 1 through 7 have the potential to emit (PTE) over 700 tons of NO_x per year. The proposed PAL would limit NO_x emissions site-wide to 248.1 tons of NO_x per year. Similarly, the CPP’s current operating permit allows the facility to emit over 80 tons of PM₁₀ per year, while only 42.8 tons of PM₁₀ are allowed under the proposed PAL. Although the current level of actual emissions from the CPP has been below these limits, these lower emissions are not guaranteed to continue. In fact, absent the PAL, the facility is authorized to operate, and emit, at its full potential, which includes the operation of seven boilers, two of which can burn up to 100% coal. So while the emissions levels authorized by the PAL provide for a *de minimis* increase in emissions above the levels recently emitted by the facility, which were used to calculate the baseline emissions rate, the PAL permit is not allowing emissions increases over the current permitted levels and actually ensures that emissions will remain at a level far below their currently permitted levels. Accordingly, the level of emissions authorized by the PAL is more protective of human health, including that of minority and low-income populations, than the emissions levels that the CPP could emit under its current permit.

With regard to any increase of emissions over the recent emissions levels that may occur after the PAL is issued, we reiterate that the “*de minimis*” levels upon which the PALs are based correspond to an increase in ambient concentrations that is very small relative to the NAAQS. As noted above, the NAAQS are set at a level that is protective of all public health, and the “*de minimis*” emission levels are set at a level much lower than that, at a level that has been determined to have an insignificant effect on NAAQS compliance. Therefore, EPA believes there is little to be gained from requiring the collection of monitoring data for the CPP prior to issuing this permit, primarily because the PAL will be more protective of air quality than if the facility simply continued operating as allowed under its current permit. At most, the PAL is allowing only *de minimis* emissions increases above actual emission levels, which as explained in the Fact Sheet and the responses above, should have an insignificant impact on the NAAQS. There is no other information or data that would indicate a need to go beyond the requirements of the existing federal regulations to conduct a more detailed analysis of the impact of those increases, particularly when CPP would be able to emit far more emissions absent the PALs.

As the commenter notes, the metropolitan Washington area is currently in attainment for the PM₁₀ NAAQS and is designated attainment/unclassifiable for both the annual and hourly NO₂ standard. In areas attaining the NAAQS, federal law requires site specific monitoring in very limited circumstances, i.e. when either a completely new major facility is being constructed or an existing major facility is making a major modification, i.e., one that causes an increase in an emissions rate that is greater than “de minimis.” See 40 C.F.R. § 52.21(aa) *generally*, and 40 C.F.R. § 52.21(m). Since each pollutant-specific PAL level in the CPP permit is set at a level that allows only a “de minimis” increase over baseline emissions, there is nothing in 40 C.F.R. Part 52 that would require such monitoring.

Executive Order 12898 directs federal agencies to identify and address impacts “as appropriate,” and “[t]o the greatest extent practicable and permitted by law”. This affords the Agency discretion in determining how to address any impacts or issues that we may identify in our review of environmental justice considerations. In the Environmental Justice analysis section of the Fact Sheet, EPA explained that the PAL levels were being set at a “de minimis” amount over baseline emissions at the facility and that these “de minimis” levels were designed to correspond to a portion of the NAAQS that were deemed to be insignificant. While it is the commenter’s preference to see an air quality analysis as part of the environmental justice demonstration, it is EPA’s opinion that this would not be appropriate or practicable for this permitting action given that PALs are specifically exempt from modeling requirements under law and that the emissions rates added to the baseline in establishing the PAL were designed to be insignificant. Furthermore, as noted above, the PAL permit will be more protective of air quality than if the PAL permit were not issued at all. The commenters have not submitted supporting documentation showing that an emissions “increase” designed to be insignificant would, in this case, have a disproportionately high or adverse impact on the surrounding community or the low-income and minority populations in that community. The EAB has recognized the adequacy of an environmental justice analysis based on existing information, including monitoring and modeling data, *In re Avenal Power Center, LLC*, 15 EAD ___, (EAB August 18, 2011).

Comment #6 (C1, C2, C4, C5, C6, C7)

Commenters claim that by relying on an analysis that is based on regional monitoring, the EPA has not sufficiently demonstrated that the impacts from this proposal will not have disproportionately adverse impacts on minority populations and low-income populations, as required by Executive Order 12898. There is no evidence that EPA relied on monitoring representative of the air quality impacts from the CPP in the surrounding area, as opposed to regional monitoring, in making a conclusion that at the baseline emission rates the NAAQS are protected. There is no record indicating that regional monitoring can be substituted for site-specific data.

Comment Response #6

The commenters are questioning the sufficiency of the regional monitoring network to determine whether current emission levels at the CPP are protective of the NAAQS. Pursuant to 40 C.F.R. § 58.10(d), the District is required to perform and submit to EPA an assessment of its air quality surveillance system every five years, starting in July 2010, that demonstrates that the network meets the objectives in Appendix D to Part 58. These objectives are: 1) provide air pollution data to the general public in a timely manner; 2) support compliance with the ambient air quality standards; and 3) support air pollution research studies. In developing the assessment, the District must consider, among other things, the ability of the existing and proposed monitoring sites to “support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma)”. The District submitted its first assessment on July 1, 2010. In addition to the five year assessment, the District is required to submit to EPA an annual monitoring network plan that provides for the establishment and maintenance of an air quality surveillance system and evidence that siting and operation of each monitor meets the requirements of, among other things, Appendix D to part 58. *See* 40 C.F.R. § 58.10(a)(1). This annual monitoring plan must be made available for public inspection for at least 30 days prior to submission to EPA and the plan must be approved by EPA. The District most recently received approval of its annual plan in 2011. The 2012 annual plan is still under review.

The commenters assert that regional ambient monitoring cannot be substituted for site-specific monitoring in determining whether emissions from CPP are having disproportionately adverse impacts on minority populations and low-income populations. However, the commenters have not provided any information that would indicate that EPA’s approval of the District’s annual monitoring network plan or its five year assessment of the monitoring network has been in error. Furthermore, there is a process in place for the public to challenge an ambient monitoring plan. Should the commenters obtain information indicating that a monitoring network is inadequate to meet the objectives of 40 C.F.R. Part 58, they are encouraged to submit that information to the District during the annual public review of the monitoring plan.

Nevertheless, the federal permitting regulations do not require that State or local permitting authorities review their ambient monitoring networks as part of the permitting process to ensure that baseline emissions are protective of the NAAQS. Furthermore, the commenter has not presented any information or data to indicate that EPA must go beyond the ambient monitoring requirements of the federal regulations in this specific instance to ensure that the NAAQS are protected. The CAA and its implementing regulations establish a well-defined process for identifying and designating areas with respect to their compliance with the NAAQS, which are designed to protect even the most sensitive populations. The PAL regulations are intended to ensure that emission levels are set in a manner that will not adversely impact the NAAQS, much less violate the NAAQS. In sum, commenters have not identified any specific issues with regard

to minority or low-income populations that would require a revision to the District's ambient monitoring network.

Comment #7 (C1)

The commenter asserts that there is no analysis showing that this permit (and the emission increases it allows) will have no adverse impacts on minority or low-income populations due to emissions of PM_{2.5} or ozone from the facility. NO_x is a precursor to both ozone and PM_{2.5}, and the design values for PM_{2.5} (annual and daily) and ozone for the two year period relied upon for baseline actual emissions exceeded the NAAQS. The commenter states that, because the permit would allow the facility to increase its emissions up to, and beyond, the emission rates associated with violations of PM_{2.5} and 8-hour ozone standards in 2002-2004 (even if regional background levels are used for PM_{2.5} and ozone), the record indicates that the permit will allow emissions that contribute to adverse impacts.

Comment Response #7

This PAL permitting action is only addressing attainment pollutants, which are covered by the permitting criteria in 40 C.F.R. § 52.21, and does not address nonattainment pollutants, which are covered by the District of Columbia's nonattainment NSR permitting requirements.

Accordingly, this permitting action only addresses impacts of individual attainment pollutants emitted from the CPP – namely NO_x (as the indicator pollutant for the national ambient air quality standards for NO₂), PM₁₀, and GHGs – and does not address impacts of nonattainment pollutants from the facility. The applicable regulations provide that the facility's emissions of ozone and PM_{2.5}, as well as their precursors, are covered by the District's nonattainment NSR permitting requirements and are not covered by EPA's permitting decision under 40 C.F.R. § 52.21.

NO_x emissions play a unique role as both an individual attainment pollutant and as a precursor for both ozone and PM_{2.5}, which affects how NO_x emissions should be addressed under the requirements of this permitting action. This NO_x PAL is protective of the NO₂ NAAQS for which the area is in attainment, and is in turn protective of all populations, including low-income and minority populations, with regard to the impacts of NO₂. Furthermore, as explained in the Fact Sheet for the proposed PAL and in the responses above, EPA has determined that the PAL for NO_x will actually decrease emissions from currently permitted levels and will allow only a de minimis increase in emissions from baseline levels.

As a general matter, we note that any nonattainment NSR permitting of the CPP by the District must comply with the preconstruction permitting requirements that apply to ozone and PM_{2.5} nonattainment areas. Consequently, regardless of whether the District ultimately goes forward with a nonattainment NSR PAL permit for NO_x as a precursor to ozone or it chooses to issue individual nonattainment NSR permits for each independent project at the CPP, the District must

issue permits that meet the requirements of a severe ozone nonattainment area. This means that whatever permit is issued will have to address ozone, including NO_x as a precursor. Likewise, regardless of the PM₁₀ PAL set in this permitting action, the CPP will need to get a relevant nonattainment NSR permit to address PM_{2.5}. In general, because the applicability thresholds and the level of control required under nonattainment NSR permitting are more stringent than those required under attainment permitting, the District's permit(s) for CPP will have to restrict NO_x and PM_{2.5} emissions to a far greater extent than the federal PAL permit, and thus should be even more protective than the federal PAL permit (which is already protective).

Finally, to the extent the commenter has concerns about the impacts of NO_x as a precursor for ozone and PM_{2.5} levels and any resulting impacts on low-income and minority populations, those concerns are beyond the parameters of this EPA permitting action and should be raised in the District's nonattainment NSR permitting process for the CPP. The EAB recognized that an environmental justice analysis of a permit need not consider emissions not regulated under the permit.

Comment #8 (C2, C4, C5, C6)

Commenters state that the AOC is working towards making the plant become a cleaner and more fuel efficient facility. However, the PAL emission limits and future emissions may be based on higher past levels of pollution rather than the current lower levels. Cleaner sources of fuel are of little consequence if the facilities are simply allowed to pollute at higher than current levels. Air pollution disproportionately impacts poor communities and communities of color and D.C. is no different. Major power plants and high-congestion roadways in the region are concentrated in low-income neighborhoods and the effects show. Despite an average national childhood asthma rate of 9%, Wards 5, 6, 7, and 8 have all reported rates of over 12% (and as high as 17.9%) as recently as 2003. This illustrates that even modest improvements like those at the CPP over the past 5 years have a higher positive impact on those who are the least well off. The AOC has a responsibility as a member of the D.C. community to continue moving in the right direction and not to backslide on already hard-won gains.

Comment Response #8

Prior to the 2002 NSR Reform Rule, which finalized provisions for PALs, a study was undertaken to gauge any environmental benefits that would arise from permits containing emissions caps and other flexible permitting initiatives (the predecessors to PALs). EPA found that "significant environmental benefits occurred for each of the permits reviewed" as part of this study. See 67 FR 80207. EPA also found that these pilot programs "encouraged emissions reductions and pollution prevention, even though such environmental improvements were not an explicit requirement of the permits" and that in a cap-based program "sources strive to create enough headroom for future expansions by voluntarily controlling emissions." *Id.* Accordingly, EPA explained that "PALs will over time tend to shift growth in emissions to cleaner units,

because the growth will have to be accommodated under the PAL cap.” *Id.* While EPA cannot speak for every PAL that has been or might be issued, in this instance, the assumptions relied upon in promulgating the PAL regulations appear to be correct. AOC’s stated intention after issuance of the PAL is to install cleaner burning, energy efficient cogenerations units. Since the CPP PAL permit will limit overall emissions to levels well below the currently permitted levels, any projects that the AOC undertakes may not increase emissions above the applicable PAL levels, which means that operation of the older, less efficient units will have to be curtailed in order for the more efficient turbines to operate and still comply with the PALs. The site-wide emission caps, and the ultimate curtailment of these older, primarily coal-based units, are consistent with the Executive Order in that they insure that populations in areas surrounding the plant will not be subject to the higher emission levels currently authorized at the CPP and thus avoid the health impacts that could be associated with those levels.

As explained above, while the proposed PAL limits are set at level that does allow a de minimis increase over baseline emissions, the PALs issued by EPA are substantially lower than the currently permitted emissions limits at the facility. While the facility has never had site-wide PTE limits, CPP’s PTE is greater than 700 tons per year NO_x and 80 tons per year PM₁₀. These are the annual amounts that CPP could have legally and physically emitted at the facility without any prior approval. This PAL permitting action will, for the first time, place site-wide limits that are well below the current PTE of the facility. We therefore view this permitting action as decreasing the allowable emissions limits at the facility, not increasing them, and thus providing environmental protection to, rather than imposing disproportionate burdens on, affected communities.

With respect to the baseline chosen by the CPP for the respective PALs, when EPA adopted the rule revisions that would allow facilities to “look back” up to ten years when establishing their baseline emission rates for attainment permits, including PALs, EPA posited in the Environmental Impact Analysis (see “New Source Review (NSR) Improvements: Supplemental Analysis of the Environmental Impact of the 2002 Final NSR Improvement Rules (2002)”) that the ten year look back period would eliminate the regulatory disincentive for sources to implement changes that improve operating efficiency and reduce emission rates. On June 24, 2005, the United States Court of Appeals for the District of Columbia (D.C. Circuit Court) issued a decision on the challenges to, among other things, the ten year look back for establishing baseline emissions (see *New York v. United States*, 413 F.3d 3 (D.C. Cir. 2005)) and concluded that EPA had provided a “detailed and reasoned” analysis for use of the 10-year period, and thus upheld it. Therefore, in setting the PAL levels in this permit, EPA is obligated to follow the provisions in 40 C.F.R. § 52.21(aa), and has done so in this instance. The PAL regulations at 40 C.F.R. § 52.21(aa)(6), with the internal reference to 40 C.F.R. § 52.21(b)(48), afford this facility the ability to look back up to ten years in establishing the baseline for each PAL. While the commenters would prefer the use of a different baseline period, the time periods used by CPP to

calculate baseline emissions are consistent with the PAL regulations and commenters have not shown that use of a permissible baseline nevertheless imposes a disproportionate environmental burden. EPA believes that this PAL permit meets the expectation of the Executive Order by avoiding disproportionate burdens and, instead, ensuring that future emissions of PM₁₀ and NO_x will be constrained beyond what the facility is currently able to emit.

Comment #9 (C3)

The commenter was supportive of the PAL at CPP; however, the commenter requested that the fact sheet be technology-neutral in its description of the combustion turbine project so that the AOC can explore other possibilities for providing heat and power.

Comment Response #9

In order to address the commenters concerns that the language in the permit restricts the type of technology CPP may use in any future modifications at the facility, we wish to clarify that the Project Description section in the Fact Sheet only summarizes what CPP had stated in its application. Such a statement should not be construed to mean that this action places restrictions on the type of technology deployed by the facility in any future modification. A PAL affords a facility the flexibility to add or modify emissions units without being considered a “major modification” under the PSD program. Operational decisions such as configuration of units or technology considerations are left to the owner or operator of a facility as part of the flexibility granted by a PAL.

Comment #10 (C4, C7)

The CPP should explore alternative forms of energy.

Comment Response #10

There is nothing in the PAL permit that would prevent or discourage exploration of alternative forms of energy; in fact, in order to keep emissions below the PAL, CPP will need to explore more efficient processes and possibly non-emitting sources in order to provide the steam and energy demands of the Capitol campus and/or to provide additional power to the grid.

Comment #11 (C5)

The last 24 months, rather than 2007 – 2009, are more representative of the number of heating degree days for the facility, and the Fact Sheet did not include a discussion of cooling days. Furthermore, the number of heating days will not be representative going forward due to climate change and an increase in global warming. Commenter also expressed concern with the use of a baseline period that relied more heavily on coal.

Comment Response #11:

With respect to the AOC's demonstration that 2007-2009 was more typical of facility operation than the most recent 24-month consecutive period, we wish to note that this was included as part of the nonattainment NSR PAL submitted to the District, and was not part of EPA's proposed action. We therefore view this as not being germane to this permitting action.

EPA has previously addressed the baseline periods in the proposed permit and health related issues in response to Comment #8. With respect to CPP and other coal burning plants in the surrounding area and the commenters' general objection to the use of coal, the commenter has not described how the use of coal by this facility or other facilities raises issues with EPA's proposed permit or analysis. These issues generally appear to be outside the scope of this action, and there isn't any specific information included with the issue raised by the commenter that would provide grounds for delaying or denying issuance of this permit.

Comment #12 (C6, C7)

CPP should not be allowed to continue burning coal. Prevailing winds from the short stacks, when burning coal, carry pollutants to the Anacostia and the eastern side of the Washington, D.C., which is an environmental justice issue.

Comment Response #12

The commenter is referred to response to Comments #8 and 10 above. The commenter has not pointed to any specific issues with EPA's proposed permit or Fact Sheet, including the environmental justice analysis, that would provide grounds for delaying or denying issuance of this permit.