

CLEAN AIR COUNCIL



Protest and Written Comments by Clean Air Council and Environmental Integrity Project

Robinson Power Company LLC Application for Major Modification of Plan Approval No. 63-00922D Robinson Township, Pennsylvania

Pennsylvania Department of Environmental Protection Southwest Region

July 17, 2020

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Clean Air Council and Environmental Integrity Project appreciate the opportunity to provide this protest, objections, and comments regarding the major modification of Plan Approval No. 63-00922D for Robinson Power Company, LLC's Beech Hollow Project.

Clean Air Council ("the Council") is a non-profit environmental health organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania, 19103. The Council also maintains an office in Pittsburgh. The Council has been working to protect everyone's right to a clean environment for over 50 years. The Council has members throughout the Commonwealth who support its mission.

The Environmental Integrity Project ("EIP") is a national nonprofit organization headquartered at 1000 Vermont Avenue NW, Suite 1100, Washington, D.C. 20005, and with staff in Pittsburgh and Philadelphia. EIP is dedicated to advocating for more effective environmental laws and better enforcement. EIP has three goals: (1) to provide objective analyses of how the failure to enforce or implement environmental laws increases pollution and affects public health; (2) to hold federal and state agencies, as well as individual corporations, accountable for failing to enforce or comply with environmental laws; and (3) to help local communities obtain the protection of environmental laws.



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Background

On May 30, 2020 the Pennsylvania Department of Environmental Protection (the “Department”) published a notice of a proposed plan approval, starting a public comment period ending on June 29, 2020. [50 Pa.B. 2760-2762](#), (May 30, 2020).

A few days into the public comment period, the Council requested a 60-day extension of the public comment period, based on multiple comment deadlines and the challenges of preparing comments during a pandemic with employees working from home. *See* Attachment 1 -- Letter and Email from Clean Air Council dated June 3, 2020. In response, the Department granted an 18-day extension of the public comment period -- to Friday, July 17, 2020. *See* Attachment 2 -- Email from Department of Environmental Protection dated June 23, 2020.

In its application, the facility had included air dispersion modeling documents (presumably on a CD-ROM or a thumb drive) but it did not attach them to the materials that the Council obtained from the Department. *See* Attachment 3 -- Application dated February 4, 2019; *see also* Attachment 4 -- Response to Technical Deficiency Letter dated June 28, 2019, *see also* Attachment 5 -- Additional Information dated October 25, 2019. To help prepare meaningful comments, the Council requested the air dispersion modeling files from the Department. *See* Attachment 6 -- Email from Clean Air Council dated July 9, 2020. On that same day, the Department stated that it would make available the documents, providing instructions for this to happen through its FTP server. *See* Attachment 7 -- Email from Department of Environmental Protection dated July 9, 2020.

Unfortunately, the Department encountered technical problems in making the documents available on its FTP server. Three days before the end of the public comment period, the Department offered to mail the documents on a thumb drive to the Council. *See* Attachment 8 -- Email from Department of Environmental Protection, July 14, 2020.

Yesterday, the Council requested a modest extension of the public comment period (two additional weeks) to provide time for a review of the air modeling documents once they arrive. *See* Attachment 9 -- Letter and Email from Clean Air Council dated June 16, 2020. The Department acknowledged the request, but did not make a decision on it. *See* Attachment 10 -- Email from Department of Environmental Protection dated July 17, 2020.

The Thumb Drive Received Today

At noontime today -- the last day of the public comment period -- the Council received the thumb drive. Although it has not had an opportunity to review these files, the Council notes that the thumb drive does not include all the air modeling documents. *See* Attachments 11-14 -- Screen Captures of Directory of Files. Importantly, the materials do not include air modeling for Class II areas (all areas other than protected areas such as national parks). In other words, the thumb drive does not include the bulk of the air modeling that should have been performed by the facility.

Moreover, there are no Building Profile Input Program for PRIME (BPIPPRM) files.

There may be other flaws and deficiencies in the air modeling documents received today. The Council and EIP may follow up with additional comments in the future.

Reservation of Rights

Despite the fact that the Council and EIP have not received all the air modeling documents, the Department has not yet made a decision on our request to extend the public comment period, which ends today. This compels the Council and EIP to submit this outline of comments in order to preserve their legal rights.

The Council and EIP are submitting this set of comments with reservation of the right to submit a fuller set of comments in the future. They intend to submit any such additional comments by Friday, July 31, 2020 -- the end of the public comment period as requested.

In addition, the Council and EIP urge the Department to hold a public hearing on this matter. This is because of the number of flaws in the application and this project will have important impacts on air quality and the surrounding community.

1. The Department Should Require a More Complete Analysis of Additional Impacts as a Result of Growth Associated with the Facility.

In its application, the facility does not properly take into consideration all the air quality impacts projected as a result of growth associated with the facility, in violation of the statute and the regulations. The Department should require the facility to correct this.

To envision more clearly what is missing, it is helpful to understand what the law requires to be included in such a growth analysis. The Clean Air Act prohibits the grant of a PSD permit unless “there has been an analysis of any air quality impacts projected for the area as a result of growth associated with such facility.” Section 165(a)(6), 42 USC 7475(a)(6).

The regulations for “Additional impact analyses” restate this requirement, expanding it to include not only air quality impacts, but also “impairment to visibility, soils and vegetation.” 40 CFR 52.21(o)(1), <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol3/pdf/CFR-2019-title40-vol3-sec52-21.pdf> (“[t]he owner or operator shall provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification”). In addition, the regulations provide that “[t]he owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial and other growth associated with the source or modification.” *Id.*, Section 52.21(o)(2).

The requirement to review air quality impacts associated with growth is also picked up by the air modeling requirement, which ties it together through the term “secondary emissions.” That is a defined term. *See* 40 CFR 52.21(b)(18), <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol3/pdf/CFR-2019-title40-vol3-sec52-21.pdf> (“Secondary emissions means emissions which would occur as a result of the construction or operation of a major stationary

source or major modification, but do not come from the major stationary source or major modification itself”).

In turn, “secondary emissions” must be included in the “source impact analysis” or the facility. See 40 CFR 52.21(k)(1), <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol3/pdf/CFR-2019-title40-vol3-sec52-21.pdf> (“including secondary emissions”). (The source impact analysis is address in Comment #2 below).

EPA’s New Source Review Workshop Manual addresses how to evaluate the question of air quality impacts associated with growth. See New Source Review Workshop Manual, pages D.3-D.4 and D.8-D.10: <https://www.epa.gov/sites/production/files/2015-07/documents/1990wman.pdf>. The Workshop Manual describes a two-step process in creating a growth analysis:

- 1) A projection of the associated industrial, commercial and residential source (ICR) growth that will occur in the area due to the source. The applicant is required to assess the availability of ICR services existing in the area and predict how much new growth is likely to occur in order to support the source or modification under review.
 - (a) In order to predict residential growth, the applicant will need to rely on variables like the size of the available workforce, the number of new employees and the availability of housing in the area.
 - (b) Industrial growth would pertain to the growth of industries providing goods and services, maintenance facilities and other large industries necessary for the operation of the source or modification under review.
- 2) The applicant is required to develop an estimate of the secondary air pollutant emissions which would likely result from this permanent residential, commercial and industrial growth.

Once the applicant has emissions estimates from the proposed source or modification, they must combine the estimates of “associated emissions.” The combined estimate is a prediction of the ground-level concentration of pollutants generated by the source and any associated growth (See: <https://www.epa.gov/sites/production/files/2015-07/documents/1990wman.pdf>. D.3- D.4). “It is important that the analysis fully document all sources of information, underlying assumptions, and any agreements made as a part of the analysis.” See page D1, <https://www.epa.gov/sites/production/files/2015-07/documents/1990wman.pdf>)

As regards the present application, the *Pennsylvania Bulletin*, May 2020 refers to an analysis conducted in accordance with 40 C.F.R. §§ 52.24(p) and 52.21(p), as do other materials, including the conclusion that the additional impacts would be “negligible.” See *Pennsylvania Bulletin*, Volume 50, Number 22, May 30, 2020, page 2761, <https://www.pacodeandbulletin.gov/secure/pabulletin/data/vol50/50-22/50-22.pdf>. Section 2.0 of the Revised Air Dispersion Modeling Analysis and Additional Impacts Analysis in the

application purports to include the required analysis but simply does not look at growth as is required, nor does it fulfill the other requirements specified above.

These references to a growth analysis imply that those visibility variables and emissions were calculated for the Beech Hollow Project. However, there is no qualitative discussion of growth or treatment of the projected growth emission quantities, or evidence or analysis to substantiate the conclusion that the growth associated with the facility was projected to be negligible. Without those calculations and discussions, there is no quantifiable way to see or verify how the conclusions in the Revised Application came to be.

The EPA's NSR Workshop Manual states: "After carefully examining all data on additional impacts, the reviewer must decide whether the analyses performed by a particular applicant are satisfactory." The "criteria for determining the completeness and adequacy of the analysis" include "whether the data and conclusions are presented in a logical manner understandable by the affected community and interested public." Robinson Power has not provided a complete or adequate growth analysis as is required for the Beech Hollow facility.

A proper growth analysis would take into consideration the fact that the facility is being planned in the area as a component of a much larger gas infrastructure build-out, and is driving part of that build-out. Specifically, the power plant is sourcing its fuel gas locally. The fuel demands of the plant will drive the drilling of new gas wells, or the expansion/refracking of existing gas wells, with very significant impacts in the area to air quality. The new wells will require additional miles of gathering line, possibly compressor stations, pigging stations, meter stations, and the like. The MarkWest Harmon Creek and ETP Revolution Cryo gas processing plants are in the immediate vicinity of the facility, which would source gas at least from the Harmon Creek facility. The future emissions from the Harmon Creek facility and possibly the other gas processing plant will owe at least in part to the power plant they would serve.

The power plant would also need a fuel pipeline for input and an electrical transmission line for output, both of which are associated with additional emissions. A new electrical substation and line were built in just the last few years to serve the gas processing plants, and possibly also be connected to the power plant. The type of analysis needed for impacts associated with the gas pipeline is readily replicable from FERC environmental impact assessments.

These are very significant emissions — among others — that the Department appears not to have considered at all in doing the growth analysis. This type of analysis needs to be undertaken before a plan approval may be issued. And this is not even to mention the cumulative impacts from the emissions from gas infrastructure build-out in the area taken as a whole. As the first report of the Forty-Third Statewide Investigating Grand Jury recommended, the Department should not be ignoring the cumulative impacts of other development in the area.

2. The Department Should Require a More Complete Analysis of Air Modeling, Including a Complete Analysis of Significant Impact Levels.

In its application, the facility does not properly perform the air modeling, in violation of the statute and the regulations. The Department should require the facility to correct this.

The Clean Air Act prohibits the grant of a PSD permit unless “emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any (A) maximum allowable increase or maximum allowable concentration for any pollutant in any area to which this part applies more than one time per year, (B) national ambient air quality standard in any air quality control region, or (C) any other applicable emission standard or standard of performance under this chapter.” Section 165(a)(6), 42 USC 7475(a)(3).

The facility must meet the requirements for air quality models. 40 CFR 52.21(l), <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol3/pdf/CFR-2019-title40-vol3-sec52-21.pdf>. It also must meet the requirements for an “air quality analysis.” 40 CFR 52.21(m), <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol3/pdf/CFR-2019-title40-vol3-sec52-21.pdf>.

The Council notes that the thumb drive received from the Department today does not include all the air modeling documents. *See* Attachments 11-14 -- Screen Captures of Directory of Files. The materials do not include air modeling for Class II areas (all areas other than national parks). Moreover, there are no BPIPFRM files. If these are all the air modeling files in the possession of the Department, then the Department is unable to properly review and evaluate the application for the plan approval.

A. The Department Should Require Additional Significance Modeling (e.g., for Comparison to Significant Impact Levels (SILs)).

Under the Nonattainment New Source Review regulations, a source causes or contributes to a National Ambient Air Quality Standard violation when “such source or modification would, at a minimum, exceed the following significance levels at any locality that does not or would not meet the applicable national standard.” 40 CFR 51.165(b)(2). A major source or major modification will be considered to cause or contribute to a violation of a National Ambient Air Quality Standard when such source or modification would, at a minimum, exceed the significance levels of 1.2 $\mu\text{g}/\text{m}^3$ (for a 24-hour period) and 0.3 $\mu\text{g}/\text{m}^3$ (over an annual period). *Id.*

Under a guidance document, EPA applies a significant impact level of 1.2 $\mu\text{g}/\text{m}^3$ (for a 24-hour period) and 0.2 $\mu\text{g}/\text{m}^3$ (over an annual period). (It lowers the level in the regulation to 0.2 $\mu\text{g}/\text{m}^3$). U.S. EPA, Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program, page 15 (Table 1. Recommended SIL Values for Ozone and PM_{2.5} NAAQS), https://www.epa.gov/sites/production/files/2018-04/documents/sils_policy_guidance_document_final_signed_4-17-18.pdf.

In the present case, the 24-hour predictive concentration numbers for PM_{2.5} (1.17µg/m³) are extremely close to the PM_{2.5} modeling significance level of 1.2 µg/m³. *See* Attachment 3 -- Application, page 1-11 (Table 1-7: Maximum Modeled Concentrations for Significance Modeling). Because “there is an inherent variability in the air quality surrounding a monitoring site” (*See* 2018 Guidance Document, page 11), the Department should consider the predicted value carefully, in light of a number of important considerations.

As noted by the consultant for the facility “[t]he use of a safety factor or margin is well-established in the air permitting context to appropriately account for the uncertainty and operational variability that will occur over the life of a facility...” *See* Attachment 4 -- Technical Deficiency Response, page 3-5. While the consultant made this statement in the context of emissions limitations under BACT, the same concern should apply in the present instance.

The Department has the authority to require additional air modeling information if the Department “has a basis for concern” that a facility’s SIL analysis is insufficient to demonstrate that the facility will not cause or contribute to a violation. *See* 2018 Guidance Document, page 18. The PM_{2.5} modeling significance level of 1.17 µg/m³ is a basis for such concern, supporting the exercise of that authority.

B. The Facility Has Not Demonstrated the Appropriateness of a Comparison to a Facility in Tuscarawas County, Ohio.

In the application, the facility calculates total emissions from all sources of emissions of fine particulates (including precursors), based on an allegedly “comparable source” in Tuscarawas County, Ohio. *See* Attachment 3 -- Application, page 1-14 through 1-15. While such a comparison may not be *per se* impermissible, the facility has not demonstrated that in fact these are comparable facilities. This is a concern because of the large amount of ammonia emissions from the facility. The Department should require the facility to demonstrate that in fact these are comparable facilities.

C. The Department Should Require Additional Monitoring for Background Concentrations.

In addition, the Department has discretion to require monitoring for background concentrations, but the facility did not do so. The facility did not perform pre-construction ambient monitoring, and “background values were not determined for the refined modeling analysis.” *See* Attachment 3 -- Application, page 1-9. EPA does not require further pre-construction air modeling or background air quality analyses where the predicted values are below the significant impact level. *See* 2018 Guidance Document, page 10. But the guidance document acknowledges the authority of state air permitting authorities to require a cumulative impact analysis, which would include “the appropriate background concentration.” *See* 2018 Guidance Document, page 18. This is particularly important because the 24-hour PM_{2.5} level is very close to the significant impact level.

While the application includes results of its modeling for significant impact levels, it does not show its work in the attached “Appendix B- Modeling Files,” which is simply a blank cover page, missing data and calculations. *See* Attachment 3 -- Application, TOC-1, Appendix B.

D. The Department Should Require the Facility to Include Air Emissions of Ammonia (NH₃) in the Air Modeling.

There is no evidence that the facility included ammonia (NH₃) in its air modeling, despite the fact that it is a precursor to fine particulates. *See* 40 C.F.R. §51.1000 (“PM_{2.5} precursors are Sulfur dioxide (SO₂), Oxides of nitrogen (NO_x), Volatile organic compounds (VOC), and Ammonia (NH₃)”). The Department should require Robinson Power to correct this. *See In re: Shell Gulf of Mexico, Inc. & Shell Offshore, Inc. (Frontier Discoverer Drilling Unit)*, 15 E.A.D. 193, 202-206, 221 (2011) (OCS Permit No. R10OCS/PSD-AK-09-01). In that appeal, the Board did not sustain the Region's source impacts analysis for PM_{2.5}, and remanded this issue to the Region. *See id.* at 205 (the Region “has not identified any place within the administrative record where the Region provided an explanation that modeling secondary PM[2.5] is not necessary because PM[2.5] precursors will not be emitted in significant quantities.”).

The application does not refer to ammonia in its discussion of the secondary formation of fine particulates from precursors. *See* Attachment 3 -- Application, page 1-13, Section 1.6 (Secondary Formation Analysis) (discussing only NO_x and VOC, for the secondary formation of ozone and fine particulates). The response to technical deficiency does not do this either. *See* Attachment 4 -- Technical Deficiency Response, pages TOC-1, TOC-2 (providing analysis of BAT, BACT, and LAER only). The additional information provided by the facility does not do this either. *See* Additional Information (including updated air emissions information for a number of air pollutants, but not including ammonia).

But the Department has included an emissions limitation of 205.90 tpy for ammonia in the proposed plan approval, presumably based in part on ammonia injection. *See* Review Memorandum dated May 28, 2020, pages 4 (requiring “ammonia injection rate” records), 17 (emissions limitation of 205.90 tpy for ammonia), and 23 (requiring pressure differential records relating to ammonia injection rate), <http://files.dep.state.pa.us/RegionalResources/SWRO/SWROPortalFiles/Community%20Info/RobinsonPower/PA-63-00922D%20Robinson%20Review%20Memo%20May%202020%20rev3%20signed.pdf>; Proposed Plan Approval, pages 12, 39, <http://files.dep.state.pa.us/RegionalResources/SWRO/SWROPortalFiles/Community%20Info/RobinsonPower/PA-63-00922D%20DRAFT.pdf>.

Under the decision of the Environmental Appeals Board in *Shell Gulf of Mexico*, the Department should require the facility to correct this.

E. In its Air Modeling, the Facility Should Consider the Impacts in the Fine Particulate Nonattainment Area in Allegheny County – A Short Distance Away.

The air modeling should recognize the fact that Allegheny County is a longstanding nonattainment area for fine particulates. *See* 40 C.F.R. 81.339. The Council has not identified anything in the materials before the Department suggesting that the facility has done this in connection with its air modeling. Because the Department has discretion to apply more scrutiny

than the significant impact levels in the guidance document, it should take this fact into consideration.

In summary, the Department should provide additional air modeling files above and beyond those provided to the Council today, as they are missing important documents and data. After the Council submits any supplemental comments by Friday, July 31, 2020, the Department should re-evaluate the air modeling, including the analysis of significant impact levels. The Department should require pre-construction ambient monitoring and a cumulative impact analysis that incorporates background air quality. The Department should take into consideration a number of factors, including the facility's high emissions limitation for ammonia (a precursor to fine particulates) and the background concentrations and sources of fine particulates contributing to nonattainment in Allegheny County.

F. The Facility Has Not Provided Adequate Support for its Disregard of Local Meteorological Data in Favor of Data at the Airport, Which Would Have a Material Impact on Meeting the Significant Impact Levels.

Today on the thumb drive, the Council received an air modeling report from August 2019 for the first time. *See* Attachment 19 -- Revised Air Dispersion Modeling Analysis and Additional Impacts Analysis (August 2019). (This was not in documents previously provided by the Department to the Council). While it has not had the opportunity to fully review it, the Council notes that the Sensitivity Analysis disregards local meteorological data in favor of meteorological data at the airport. *See id.*, Section 1.3.5.1 Sensitivity Analysis, pages 1-8 through 1-9. This is material because it would cause the predicted value to be less than the significant impact level for fine particulates (annual standard), rather than greater than this level. The facility has not adequately substantiated this approach.

3. The Department Should Require a More Complete Analysis of Best Available Control Technology (BACT) and Lowest Achievable Emissions Rate (LAER).

The facility does not properly perform an analysis of Best Available Control Technology (BACT) and Lowest Achievable Emissions Rate (LAER), in violation of the statute and the regulations. The Department should require the facility to correct this and should not accept limits that do not meet LAER, BACT, or BAT.

The Clean Air Act prohibits the grant of a PSD permit unless “the proposed facility is subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility.” *See* Section 165(a)(4) of the Clean Air Act. Under the regulations, the facility must meet the requirements for “[c]ontrol technology review.” 40 CFR 52.21(j), <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol3/pdf/CFR-2019-title40-vol3-sec52-21.pdf> (requiring “best available control technology”). *See also* New Source Review Workshop Manual, pages B.1-B.75: <https://www.epa.gov/sites/production/files/2015-07/documents/1990wman.pdf>.

As a threshold matter, the Clean Air Act requires the application of BACT “for each pollutant subject to regulation under this chapter.” Section 165(4), 42 U.S.C 7475(a)(4). It is not clear that this has been done. For example, it appears that the facility is not applying BACT to ammonia.

In addition, it is not clear that the facility has properly considered LAER for nonattainment pollutants. The state regulations contemplate the application of LAER to a facility that has an impact in a nonattainment area, even if the source is located in an attainment area. *See* 25 Pa. Code §127.201(a) “[a] person may not cause or permit the construction or modification of an air contamination facility in a nonattainment area or having an impact on a nonattainment area unless the Department or an approved local air pollution control agency has determined that the requirements of this subchapter have been met.”). *See also* 25 Pa. Code §127.203 (applying special permit requirements to the construction of a new major facility or modification at an existing major facility located in an attainment area which impacts a nonattainment area in excess of significance levels). Allegheny County is a fine particulate nonattainment area, and it is located a short distance to the east of the facility. Therefore, LAER requirements apply to fine particulates from the facility.

The following are the emissions limitations based on the LAER/BACT/BAT analysis. (Pg. 7 May 2020 Rev.3 Robinson Review Memo)

Pollutant	Control Technology	Emission Limit
NOx	SCR and DLN	2.0 ppmvd @ 15% O ₂
CO	Oxidation Catalyst and Good Combustion Practices	2.0 ppmvd @ 15% O ₂
VOC	Oxidation Catalyst and Good Combustion Practices	1.0 ppmvd @ 15% O ₂
PM	Low Sulfur Fuel and Good Combustion Practices	16.40 lb/hr
PM ₁₀	Low Sulfur Fuel and Good Combustion Practices	16.40 lb/hr
PM _{2.5}	Low Sulfur Fuel and Good Combustion Practices	16.40 lb/hr
SO ₂	Low Sulfur Fuel	4.10 lb/hr
H ₂ SO ₄	Low Sulfur Fuel	6.10 lb/hr
GHG	Energy Efficient Design and Good Combustion Practices	850 lbs CO ₂ /MWh (gross)
HCHO	Oxidation Catalyst and Good Combustion Practices	91 ppbvd @ 15% O ₂
NH ₃	Good Engineering Practices	5.0 ppmvd @ 15% O ₂

The facility’s LAER/BACT/BAT analyses for both carbon monoxide (CO) and volatile organic compounds (VOC) ignore facilities in the RBLC Database with lower emission limits. *See* Attachment 15 -- U.S. EPA, RBLC Report (downloaded by Clean Air Council). *See* Attachment 16 -- *See* Clean Air Council's RBLC Analysis of RBLC Report (prepared by Clean Air Council).

The LAER/BACT/BAT analysis for this facility determines that a limit of 2.0 ppmvd @ 15% O₂ for CO is appropriate. The facility inappropriately rejected this limit under the faulty assumption that lower limits found in the RBLC are unverified and as such cannot be applied to this facility:

Other facilities found in the RBLC database and in Department's internal Combustion Turbine Comparison spreadsheets have lower CO ppm limits, ***however, it is the Department's understanding that these values have not been verified.***

Review Memorandum, page 6 (bold italics added for emphasis). This assumption is faulty because many of the facilities that are discounted from the analysis have been in operation for more than five years, and would certainly have generated the relevant information and data.

According to the LAER/BACT/BAT analysis for another facility in the state, Lackawanna Energy Center (LEC), Kleen Energy Systems is reported to operate with a lower CO limit -- 0.9 ppmvd @ 15% O₂. The application states that Kleen Energy Systems started operation in the summer of 2011. LEC made the same assumption as Robinson Power -- that this limit was unverified. But LEC's application was submitted in 2014 -- six years ago:

There have also been six recent permits (Brunswick Power, Dominion Warren, Avenal, Palmdale Kleen Energy Systems, and Southern Company McDonough) permitted at less than 2.0 ppm CO. The permitted CO limits, all corrected to 15 percent O₂ are 1.8 ppm for McDonough, 1.5 ppm for Brunswick, Warren (without duct firing, 2.4 ppm with duct firing), Avenal (2 ppm with duct firing) and Palmdale (2 ppm with duct firing) and ***0.9 ppm for Kleen*** (1.7 ppm with duct firing). The Brunswick and Warren are currently under construction, with Warren scheduled to begin operation in late 2014 or early 2015. The Avenal and Palmdale facilities have not yet started construction. The McDonough units began operating in 2012 and ***Kleen Energy started up in the summer of 2011.*** As such, there is insufficient long-term operating history at this time to support feasibility a CO limit less than 2.0 ppmvd @ 15 percent O₂ on a 1-hour averaging basis to consider it demonstrated in practice.

See June 2014 Lackawanna Plan Approval Application, section 5, page 21 (bold italics added for emphasis). With more than eight years' worth of emissions data, that facility's emissions rates should be verifiable.

The LAER/BACT/BAT analysis for this facility made a similarly faulty determination that a limit of 1.0 ppmvd @ 15% O₂ for VOCs was appropriate. Again, it asserted that lower limits in the RBLC could not be verified:

Other facilities found in the RBLC database and in Department's internal Combustion Turbine Comparison spreadsheet which were subject to LAER have lower VOC ppm limits, ***however, it is the Department's understanding that these values have not been verified.***

See Review Memorandum, page 5 (bold italics added for emphasis). Just as for CO, this assumption is faulty because those facilities have been in operation for several years. Another facility in the state, Lackawanna Energy Center (LEC), Chouteau Power Plant 2 is reported to operate with a VOC limit of 0.3 ppmvd @ 15% O₂. The application states that the Chouteau 2 plant started operation in the summer of 2011. Again, the facility made the same mistake here:

A review of VOC permit limits indicates that 12 have VOC limits at the 1 ppmvd @ 15 percent O₂ level without duct firing. The limits with duct firing for those facilities are typically in the range of 1.5 to 3.9 ppm@ 15% O₂. In addition, three projects (Brunswick Power, Dominion Warren and Chouteau Power Plant 2) have VOC limits that are more stringent: The permitted VOC limits, corrected to 15 percent O₂ are 0.7 ppm, 3-hour average, for Brunswick and Warren (without duct firing; 1.6 ppm with duct firing) and **0.3 ppm, 3-hour average, for Chouteau**. The Brunswick and Warren projects are currently under construction and **Chouteau 2 is in the initial phases of operations as of the summer of 2011**. As such, a VOC limit less than 1.0 ppmvd@ 15 percent O₂ {without duct firing} on a 3-hour averaging basis is not yet considered demonstrated in practice, due to insufficient operating history at that level.

See June 2014 Lackawanna Plan Approval Application, section 5, page 26 (emphasis added). Again, a facility's emissions rates should be verifiable with eight-plus years' worth of emissions data.

In order for this LAER/BACT/BAT analysis to be considered sufficiently complete, the facility perform due diligence and verify these limits. It is unreasonable to assume that facilities in operation for more than eight years do not have sufficient data to verify that they are capable of meeting their enforceable permit limits. It is also unreasonable to rely on a technology comparison analysis done years ago, especially for a source as large as this one.

The Department should also further examine individual emissions rates for PM_{2.5}, PM₁₀, sulfuric acid mist (H₂SO₄, See Comment 6 below) and Ammonia (NH₃) to verify that lower emission rates can be achieved under BACT and BAT.

In the proposed plan approval, PM_{2.5} and PM₁₀ emission rates are 16.40 lb/hr, which equates to a 0.0047 lb/MMBTU-turbine emission rate for both PM_{2.5} and 10. See Review Memorandum, page 7; see also Attachment 106-- Clean Air Council's RBLA Analysis of RBLA Report. Other similarly-sized turbines on the RBLA are capable of achieving PM_{2.5} rates as low as 0.0033 lb/MMBTU under BACT. See Attachment 15 -- EPA RBLA Report. See Attachment 16 -- Clean Air Council's RBLA Analysis (first tab). The disparity between the facility and other facilities' PM₁₀ emission rates is even greater, as other similarly-sized turbines on the RBLA are capable of achieving as low as 0.0025 lb/MMBTU under BACT. See *id.* This includes Lackawanna Energy Center, a facility using the same combustion turbines as the facility, which can achieve a lower emissions rate of 0.0030 lb/MMBTU under BACT. The Department should

re-examine the facility's PM2.5 and PM10 emission rates and determine if the rates given by the facility is appropriate under BACT, especially given that lower rates are achievable in analogous scenarios and configurations. As the analysis stands, no reasoning is given for this disparity of rates and the BACT analysis for PM2.5 and PM10 is incomplete.

RBLC emission rates for Ammonia (NH₃) slip from SCR exhaust also show that multiple facilities are capable of achieving an emissions rate of 2 ppmvd, as opposed to Robinson's 5 ppmvd. *See id.* Though the basis for this emission rate at these facilities is BACT, the Department should evaluate if 2 ppmvd is achievable under BAT. Whether or not this emission rate is achievable, the Department should provide proper reasoning as to why a rate of 5 ppmvd was chosen and why 2 ppmvd is or is not achievable under BAT.

4. The Department Should Set Clear and Enforceable Definitions, Limits, and Monitoring for the Turbines' Startup and Shutdown.

One of the most notable changes in Robinson Power's Major Modification Application from the previously permitted project is that Robinson Power now projects that the Facility will have 147 hours of startup and shutdown per turbine instead of the original 33.8 hours. This is clearly a large increase, more than four times over the original estimate. This is notable for several reasons, including (1) that it calls into doubt whether this estimate is truly the "worst-case scenario" required for estimating the Facility's potential to emit, as discussed below, given that Robinson Power claimed that 33.8 hours was the worst-case scenario at that time, and (2) that it indicates Robinson Power may be planning for this Facility to operate as more of a peaking power plant (i.e., aka providing power during peak demand and ratcheting down/off during periods of low demand) versus a base-load power plant. In other words, startup and shutdown have increased because they are integral to the proposed Facility's operation.

For any of these reasons, the Department must ensure that the Facility's hours of and emissions during these longer periods of startup and shutdown are clearly accounted for through clear definitions, proper emissions limitations, and accurate monitoring. Falling short on any of these items will result in an unenforceable permit and a likelihood that the Facility will emit more during these periods without the Department's, the operator's, or the public's knowledge.

A. The Department Should Reject Robinson Power's Modified Definitions of Startup and Shutdown and Select Clear, Enforceable Definitions Based on Normal Operating Parameters

Robinson Power has requested a modification to the definitions of "startup" and "shutdown" in order that these periods are defined by their compliance with emissions limitations rather than the underlying parameters. The Department stated that the definitions "will be modified based on the proposed language but may be adjusted during the comment period based on any feedback received." Commenters request that the Department not adopt the modified definitions, but instead adopt clear and enforceable definitions that are actually based on the parameters of the turbines' operation.

The modified definitions proposed by Robinson Power are circular and effectively create an exemption from emission limitations by treating startup/shutdown emissions as though they

are outside of permitted emissions. Under Robinson Power's proposed definitions, startup is: "Beginning from the time a non-zero value is measured at the HRSG stack (of a permitted pollutant) to the time emissions compliance is achieved at the HRSG stack as measured by the CEMs." Similarly, shutdown is: "Beginning from the time that shutdown has been initiated and the HRSG stack emissions exceed the normal operation limits and ending when fuel is no longer being combusted."

Taken together with the exemption of startup and shutdown from the turbine's limits for VOC and other pollutants (e.g., 1.0 ppmvd @ 15% O₂ on a 3-hour average, excluding startup and shutdown; 4.40 lb/hr from each combustion turbine, excluding startup and shutdown), the modified definitions are circular: startup and shutdown are defined by non-compliance with the emission limits from which they are exempted. Furthermore, these definitions are unenforceable and set incentives against prompt compliance with the emission limits. Under the modified startup definition, startup doesn't end until "the time emissions compliance is achieved." This means that a period of startup is effectively unlimited. If the turbines fail to meet the emission limits, even as they begin normal operations, Robinson Power can claim under the modified definition that they are still in startup. Under the modified definition, there is no reason for Robinson Power to quickly bring the facility into normal operations and compliance.

This is especially a problem because, as Robinson Power admits, the turbines' emissions of VOCs will be higher during periods of startup and shutdown. To the extent that the Department needs to ensure that the Facility will remain a synthetic minor source for VOCs, it should start by addressing these definitions.

Commenters propose that the Department adjust the definitions of startup and shutdown and base them on when the turbines are in their normal operating parameters, in order that the definitions are based upon when the turbines should be able to meet the emission limits, rather than on whether they're actually meeting them. For example, "startup" should be from the time when gas begins firing (and thus pollutants are detected in the stack) to the time when stable operating conditions are established: i.e., when the turbine is above a capacity where emission rates are guaranteed and the catalyst is above the minimum operating temperature envelope. This simple adjustment will correct the circular nature of the modified definitions and will set the incentives for Robinson Power to bring the turbines into compliance as quickly as possible and to limit periods of startup and shutdown.

B. The Department Should Reject Robinson Power's Proposed Definitions of Startup and Shutdown and Select Clear, Enforceable Definitions

The shortcomings of Robinson Power's modified definitions—and specifically their lack of enforceability and their incentives not to comply—are exacerbated by the fact that the Plan Approval does not set appropriate emission limitations on the turbines during periods of startup and shutdown. Similarly, the limits on the duration of startup and shutdown contain a loophole on the total length of shutdowns. The Department should revise the Plan Approval to include stringent and enforceable limits during startup and shutdown.

First, other than the total, facility-wide emission limit of 42.00 tons per year of VOCs, there is no emission limit during startup and shutdown events. This is a significant shortcoming

for several reasons: (1) as discussed above, the modified circular definitions for startup and shutdown establish a limit-free loophole without incentives to limit the duration of startup and shutdown; (2) in order to maintain the Facility as a synthetic minor source for VOCs, Robinson Power is relying on specific hourly and concentration-based emission limitations for VOCs during normal operations, but is not doing the same for periods of startup and shutdown. Given that periods of startup and shutdown are now much greater than before and seemingly integral to the Facility's operations, this creates significant doubts that Robinson Power will actually operate as a synthetic minor source for VOCs.

Accordingly, the Department should set specific emission limits for VOCs during periods of startup and shutdown. This is easy to do, as Robinson Power has estimated through its potential to emit that the turbines will each emit 1.65 tons per year of VOCs during their 147 hours of startup and shutdown. On average, these VOC emissions are therefore 22.45 pounds per hour. This is a generous limit, as almost six times greater than the normal operation hourly emission limit of 4.40 pounds per hour. If the Department or Robinson Power believe 22.45 pounds per hour is too low to address certain periods of emissions during startup and shutdown, then they should set a higher hourly limit. Alternatively, they could set a limit for a longer period of time, such as daily. Either way, there is no reason why the Facility should not have an emission limit during its periods of startup and shutdown. If the Department wants to ensure that the Facility remains a synthetic minor source, then such a limit is vital.

Second, and similarly, the Department should close the loopholes on the duration of startup and shutdown events. Commenters support the fact that the Plan Approval sets an annual limit of 147 hours for all startup and shutdown events and sets specific duration limits on certain individual events of startup and shutdown. *See* Plan Approval at 40, <http://files.dep.state.pa.us/RegionalResources/SWRO/SWROPortalFiles/Community%20Info/RobinsonPower/PA-63-00922D%20DRAFT.pdf>. However, other than the narrative limit of “minimized to the extent possible consistent with manufacturer’s procedures,” these limits on duration notably exclude any limit on the duration of a single shutdown. The Department should set an appropriate duration limit for each individual shutdown event.

In order to ensure that the Facility remains a synthetic minor source for VOCs, and in conjunction with revising the definitions for startup and shutdown to remove incentives for noncompliance, the Department should revise the Plan Approval to include specific emission limits for periods of startup and shutdown and limits on the duration of individual shutdown events.

C. The Department Should Retain the Provision for CEMS Monitoring of VOCs, Adjusted to Account for Startup and Shutdown Periods

Commenters support that the Department has opted to retain the Plan Approvals provisions for monitoring the turbines’ emission of VOCs via the correlation of CEMS-measured carbon monoxide emissions (Section E-I. Combustion Turbines I. Condition #002), in spite of Robinson Power’s request to replace it with a stack test every five years. The Department has stated that “[t]he requirement will remain unchanged at this time, but may potentially be modified upon site-specific data from Robinson supporting the claim.” Commenters urge the

Department to retain the requirement, while also adjusting it to better account for VOC emissions during periods of startup and shutdown.

Monitoring of VOC emissions via the correlation of CEMS-measured carbon monoxide emissions is a far better approach than stack testing once every five years, as it allows for continuous and much more accurate monitoring to better ensure compliance. However, in light of the need for emission limits during startup and shutdown and to account for the fact that the CO:VOC ratio may not be the same during such events, the Department should adjust the provision such that the initial testing also tests for the ratio and emissions during startup and shutdown periods. Furthermore, the Department should add a provision requiring testing to verify and update the emissions and ratio annually, in order to ensure that the monitoring methodology remains accurate during such periods.

The retention of this monitoring provision and adjustment to account for periods of startup and shutdown is key to the issues regarding clarity, enforceability, and certainty that Commenters have raised with regard to periods of startup and shutdown and the Facility's status as a synthetic minor source of VOCs, as it will allow the Department and Robinson Power to ensure on an ongoing basis that the Facility stays below its hourly and annual emission limits for VOCs, that Robinson Power's potential to emit remains accurate, and that the Facility's effects on air quality and human health are properly estimated and fully understood.

5. The Department Should Reassess the Facility's Potential to Emit and Require Supplemental Information from Applicant to Support Emission Guarantees, Control Technology Performance and Hazardous Air Pollutant Potential to Emit Calculations.

Some of the most notable changes in Robinson Power's Major Modification Application are the acknowledgment of an increase in operational hours, increasing the number of startup hours for the combustion turbines, increasing the size and hours of the auxiliary boiler, and adding two dew point heaters. Commenters are concerned, however, that in spite of the expansion of planned operations, the potential to emit (PTE) of VOC decreased from 45.42 tons in the October 4, 2018 Modified Air Quality Plan Approval to 42.00 tons VOC in the May 30, 2020 Proposed Modified Air Quality Plan Approval. Despite increasing from a limited firing rate of 41,670,370 MMBtu annually to up to 61,071,216 MMBtu if unrestricted operations is utilized (using turbine rated capacity of 3,485.8 MMBtu/hr each multiplied by 8760 potential annual operating hours), the facility purportedly remains just below the 50 tpy threshold for VOCs. Commenters believe this determination, which is crucial to the proposed Plan Approval, deserves additional scrutiny.

A. The Department Must Require Supplemental Information Regarding Manufacturer Guarantees for Turbine Emission Rates and Oxidation Catalyst Performance

Central to the PTE calculations is Robinson Power Company's assumptions regarding emission rates from the two General Electric (GE) 7HA.02 (or equivalent) natural gas-fired combustion turbines, controlled by SCR and oxidation catalysts. In Robinson Power Company's June 28, 2019 Response to Technical Deficiency Letter, the facility notes that emissions data

supplied with the Major Modification application was provided by GE, included in Attachment A of the Major Modification submittal at pages 2 and 3.

This data from GE provides emission rates at different turbine operating scenarios from 30% load to 100% load, with the assumption that both the SCR and oxidation catalyst are operating at all times. However, applicant information on the oxidation catalyst is inadequate to determine whether these emission rates are guaranteed, and the necessary operating envelope for adequate oxidation catalyst performance.

Commenters first note that while GE has provided an emissions profile at a variety of operating loads from 30-100% capacity, additional information is necessary to determine the operating envelope at which emissions are guaranteed. For example- EPA notes in the AP 42 Stationary Gas Turbines Section 3.1 that VOC emissions are affected by the gas turbine operating load conditions, noting that VOC emissions are higher for gas turbines operating at low loads as compared to similar gas turbines operating at higher loads. Commenters seek clarification as to whether emission rates provided by GE are guaranteed for load rates between 30-100%, and whether GE can provide additional information regarding low-load operation and emissions. For example, Commenter review of similar low-NO_x, gas-fired Solar Turbines found that at low-loads (lower than 50% for Solar Turbines), CO and VOC concentrations increase substantially.

The applicant provides information regarding air pollution control devices under Combustion Unit Section C – Air Cleaning Device. In this section, the applicant provides information regarding air pollution control technology – for example, SCR contains information on operating temperature range, percent removal for NO_x and performance conditions for effective operation. However, the control equipment section for the oxidation catalyst is primarily left blank, with the manufacturer, design inlet volume and operating conditions marked “TBD”. The application does provide assumed removal efficiencies of 78% for CO and 30% for VOC, but no manufacturer information, operating details to thoroughly evaluate the control equipment, or manufacturer guaranteed emission rates. Without this information, it is impossible for Commenters to assess whether the emission controls will be capable of meeting emission rates expressed in the permit application, and whether operating envelope conditions (especially temperature at the HRSG where catalyst operates) will be able to be met under all turbine load conditions and to what extent controls will be utilized under startup and shutdown activities.

Commenters ask that:

1. The Applicant provide supplemental emission information on the oxidation catalysts including required information from the Section C form, including manufacturer, type, operation details necessary to evaluate the control equipment, removal efficiencies and guaranteed emission rates, and underlying operating conditions where the emission rates and removal efficiencies are guaranteed.
2. Emission rates from GE at pages 2 and 3 of Attachment A are supplemented with additional information regarding low-load operation (below 30% load) and operating envelope conditions for the oxidation catalyst. Specifically,

Commenters ask for additional supporting information showing the temperature at the HRSG where the oxidation catalyst will be located, and compare to the temperature envelope where CO and VOC removal percentages are guaranteed.

3. If emissions are not guaranteed below 30% load, Commenters ask that any low-load operations are accounted for within the facility PTE. If loads below 30% are only reserved for startup and shutdown and are not guaranteed by GE, Commenters ask that low-load operations be explicitly prohibited outside of during startup and shutdown periods.

B. The Department should Assess whether the Facility is a Major Source of Hazardous Air Pollutants (HAPs), Specifically for Formaldehyde.

Commenters are concerned that the current application makes several assumptions within the calculation of HAP PTE that present the facility as a minor source, though when consistent and standard methods are applied the facility may exceed thresholds for 25 tpy total HAP and for individual HAP (formaldehyde). The applicant presents potential to emit for HAP at page 9 of Attachment A in the Application, and presents estimated emissions from the combustion turbines from AP-42 Section 3.1. However, the lone exception made is the use of a separate HAP emissions factor for formaldehyde, citing to the EPA Memo “Hazardous Air Pollutant (HAP) Emission Control Technology for New Stationary Combustion Turbines” (2001). Despite the AP 42 factor for formaldehyde receiving an “A” rating, the applicant chooses to utilize a non-standard emission factor, which ultimately has a significant impact on the PTE determination. Should the applicant instead have used the AP 42 factor for formaldehyde emissions of 7.1 E-04 lb/MMBtu instead of the provided factor of 2.0E-04, the resulting PTE for formaldehyde would be 10.84 tpy annually, using the rated capacity of 3485.8 MMBtu/hr and 8760 operating hours used in the applicant’s HAP analysis.

Commenters are concerned that the use of separate emissions factors for formaldehyde directly results in the individual HAP and total HAP numbers below significance thresholds, where if standard factors are used the facility may exceed the major source threshold. The memo which the applicant references pulls the emission number from emissions test data from eight lean premix stationary combustion turbines, which represent the type of turbine used in this project. The 2.02E-04 lb/MMBtu emission factor used by the facility represents the 95th upper percentile level for formaldehyde emissions from high-load operations. However, these high-load factors are provided with the caveat that “As the combustion turbine load decreases, CO and HAP emissions typically increase. The emission factors for high loads should therefore not be used to estimate emission of turbines operating at low loads.” Review Memorandum at 2.

In addition, the HAP analysis fails to assess periods of low-load operation and startup and shutdown, which may have potential to add further to operational or fugitive HAP emissions. Though the emissions scenarios throughout the rest of the application take into consideration startup and shutdown emissions, the HAP section only considers 8760 hours of constant operation.

Commenters request that:

1. The Department should request additional information regarding HAP emissions at low-load operations, during startup and shutdown, and potential fugitive emissions to supplement the current analysis in the application.
2. Formaldehyde and HAP emissions should be calculated using standard emission factors, and using emission factors appropriately applying load assumptions. Commenters ask the Department to calculate PTE using either standard emissions factors, and assess HAP control by oxidation catalyst and low-NO_x combustion using manufacturer emissions guarantees.
3. The Department should reassess whether the facility may exceed major source HAP thresholds when considering HAP emissions using standard emissions factors, due to low-load operation, startup and shutdown, and using manufacturer guaranteed emission rates or initial stack test data from the facility operations to verify this determination.

6. The Department Should Reevaluate the High Sulfuric Acid Mist Emissions Limitation in the Proposed Permit, Which Apparently is Based on Erroneous Assumptions Regarding Formation of this Pollutant.

In the proposed permit, the Department relaxes the Hydrogen Sulfide (H₂S) emissions limitation relating to the fuel supply -- increasing it from 0.2 grains/100 dscf (in the initial draft plan approval) to 0.4 grains/100 dscf. Proposed Plan Approval, page 24 of 26, Section E. It is not clear why this being increased. Regardless of the reasons for the increase, the use of this higher limit raises technical concerns about the emissions increases that would result from such an increase.

Because the maximum allowable sulfur content of the fuel would be doubling (which one would expect to accommodate this increased limit), and the proposed modification involves higher-capacity turbines than previously permitted, the emissions of sulfurous compounds would be doubling or tripling. This is evidenced by the fact that the Department also proposes to increase the emissions limitations for Sulfur Dioxide (SO₂) in the proposed permit from 15.42 tpy to 35.92 tpy (~510,000 mol/yr) -- an increase of 2.33 times. But the proposed emissions limitation for Sulfuric Acid Mist (H₂SO₄) would increase from 7.67 tpy to 53.14 tpy (~492,000 mol/yr) -- an increase of 6.93 times. The facility has not provided an explanation for such a large increase in sulfuric acid mist, relative to the increases of the other pollutants emitted from the facility. This is a dramatic and disproportionate increase.

In terms of chemistry, this does not fit into the generally known process for producing SO₂ and H₂SO₄. In general, when a facility combusts natural gas containing H₂S, the majority (95%) is converted to SO₂, and the rest is converted to SO₃. This SO₃ is highly reactive and immediately forms H₂SO₄ upon contact with water. As the exhaust gases pass through the oxidation catalyst control, 35% of the SO₂ is oxidized to SO₃ and then another 5% of the remaining SO₂ is oxidized to SO₃ as it passes through the SCR system. *See* Attachment 17 --

[Emissions Update and Prevention of Significant Deterioration Best Available Control Technology Report Salem Harbor Redevelopment Project Salem, Massachusetts](#) (December 2013), Section 4.1.4, pages 4-10 to 4-11 (PSD Best Available Control Technology Assessment for Sulfuric Acid Mist (H₂SO₄)). In the end, this leads to roughly a 59% SO₂ - 41% H₂SO₄ split. However, the emissions limitation in the proposed permit show a 52% SO₂ - 48% H₂SO₄ split, closer to the expected split than the drastic limit increase would imply, but is still well off.

Finally, the H₂SO₄ emissions limitation does not make sense when compared to permits for other similar facilities. Of particular note is the permit for Lackawanna Energy Center, a facility which utilizes the same model GE turbines and the same pollution controls proposed for Robinson Power, except that LEC will have three turbines and operate with duct firing. LEC has the same fuel H₂S concentration maximum of 0.4 grains/100 dscf, but its facility-wide H₂SO₄ limit is much lower -- 31.2 tpy compared to Robinson's 53.14 tpy. A facility with two-thirds the generating capacity and a generally lower fuel consumption should not be permitted to emit 1.7 times the H₂SO₄ as the larger facility. *See* Attachment 18 -- [Lackawanna Energy Center Permit 2035-00069B](#), section C, #006, page 51 (fuel restrictions), 13 (Section C).

This inconsistency is also apparent in the hourly emission rate limitation for the individual combustion turbines at each facility. At LEC, each individual combustion turbine may not exceed 3.4 pounds H₂SO₄ per hour, while at Robinson each combustion turbine may not exceed 6.1 pounds per hour. *See id.*, page 50. *See* Review Memorandum, page 7. *See* Proposed Permit, page 38. Additionally, the permit for the Hill Top Energy Center referenced in the Review Memorandum for Robinson Power includes a pounds-per-MMBtu limit for H₂SO₄ that equates to roughly 3.1 pounds per hour per combustion turbine. Review Memorandum, page 6. All three facilities are using GE 7HA.02 units, but Robinson is allowed to emit almost twice as much sulfuric acid mist per hour as the other two.

The Department should review the calculations relating to these emissions limitations and revise them as appropriate. In the future, the Department should include the underlying mathematical calculations for emissions limitations for permits in its review memorandum, so that the public may easily refer to them and understand them. Having the calculations on hand would reduce the potential for confusion.

Conclusions

For the foregoing reasons, the Council and EIP oppose granting the proposed major modification of Plan Approval No. 63-00922D. The Council and EIP also request a public hearing on this deeply flawed application so that neighbors and other concerned residents have a full opportunity to voice their opinions, questions, and concerns.

Sincerely,



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