Comment Response Document

Commonwealth of Pennsylvania
Department of Environmental Protection

Lackawanna Energy Center, LLC
Permit Decision
Plan Approval 35-00069A
Borough of Jessup, Lackawanna County

Public Comment Period Dates
August 1, 2015 – September 16, 2015
Public Hearing on September 2, 2015

December 23, 2015

Department of Environmental Protection

www.depweb.state.pa.us

PROJECT DESCRIPTION

On August 1, 2015, the Department of Environmental Protection (Department or DEP) published in *The Pennsylvania Bulletin* a Notice of Intent to Issue Plan Approval No. 35-00069A to Lackawanna Energy Center, LLC ("Lackawanna Energy" or "Permittee") to construct the proposed Lackawanna Energy Center in the Borough of Jessup, Lackawanna County, as described in the Permittee's June 3, 2014 Plan Approval Application and subsequent supplemental submissions. The proposed Plan Approval authorizes the construction of a three on one (3 x 1) power block, consisting of three combustion gas turbine (CGT or CT) and one steam turbine (ST). The turbines to be used for this project are three General Electric (GE) 7HA.02 CTs, in the 3 x 1 combined-cycle power blocks.

Duct burners (DBs) will be installed in the heat recovery steam generators (HRSGs) of the proposed new units. Each CT and duct burner will exclusively fire pipeline-quality natural gas. The HRSGs will be equipped with selective catalytic reduction (SCR) to minimize nitrogen oxide (NOx) emissions and oxidation catalysts to minimize carbon monoxide (CO) and volatile organic compound (VOC) emissions from the CTs and DBs.

The Project will also include several pieces of ancillary equipment. The list of equipment includes:

One natural gas fired fuel gas dew-point heater common for all CTs
One natural gas fired auxiliary boiler
One diesel powered emergency generator
One diesel powered fire water pump
Diesel fuel, lubricating oil, and aqueous ammonia storage tanks

Several comments were received during a 30-day written comment period following publication of the Department's Notice of Intent to Issue. During that comment period, requests to conduct a public meeting and public hearing were received. On September 2, 2015, the Department held a public hearing at the Valley View School District concerning the proposed Plan Approval 35-00069A for the Lackawanna Energy Center. The hearing was advertised in a local paper of general circulation.

This document briefly summarizes written comments and oral testimony presented during the public hearing, and provides the Department's response to relevant comments received. The comments are not intended to be a complete summary of each individual's testimony, but rather to identify the issue or comment raised and provide the context for the Department's response. The Department's responses are generally limited to the Air Quality Plan Approval Application process and the Department's authority under the Pennsylvania Air Pollution Control Act, the regulations promulgated thereunder, the federal Clean Air Act, and the federal regulations promulgated thereunder. The testimony of each individual was transcribed, is available in its entirety at the DEP's Northeast Regional Office, and may be accessed by any person wishing to review it by scheduling a file review with the Department at (570) 826-2511.

LIST OF COMMENTERS

The following is a list of individuals who provided comments to the Department on Plan Approval Application No. 35-00069A	
1.	Rella Scassellati (Both testimony and written comments submitted to DEP)
2.	Janine Pavalone (Both testimony and written comments submitted to DEP)
3.	Jason Petrochko
4.	Joseph Piconi
5.	Sam Sebastianelli
6.	Ron Sebastianelli
7.	Alex Lotorto
8.	Sam Sebastianelli, Sr. (Both testimony and written comments submitted to DEP)
9.	Holly Petrochko (Both testimony and written comments submitted to DEP)
10.	Bob Bolus
11.	Jeff Addley
12.	Doris Burda
13.	Richard Schraeder
14.	Joseph Caterina (Both testimony and written comments submitted to DEP)
15.	Michael Guida
16.	Jerry Crinelli
17.	David Horn
18.	Tom Fiorelli (Both testimony and written comments submitted to DEP)
19.	Michael Fiorelli
20	Corey Mahon
21.	Rachel Galati
22.	Ernest Lemoncelli (Both testimony and written comments submitted to DEP)
23.	Bonnie Urzen
24.	Lanette Hosie

25.	Jack Figure
26.	Anita Lohin
27.	Barbara Clifford
28.	Carolyn Mizanty
29.	Joshua Seamans
30.	Vera Scroggins
31.	Frank Finan
32.	Kelly Finan (Both testimony and written comments submitted to DEP)
33.	Charles Walker (Written comments submitted to DEP)
34.	Clean Air Council (Written comments submitted to DEP)
35.	John Mellow (Written comments submitted to DEP)
36.	Gene Koloc (Written comments submitted to DEP)
37.	Dave Bynam (Written comments submitted to DEP)
38.	Anthony Wrightson (Written comments submitted to DEP)

Public Comments and Department Responses

1. Comment

General concern about the environmental and health impacts, impacts to sensitive persons, and impacts to animals. (Rella Scassellati, Jason Petrochko, Ron Sebastianelli, Holly Petrochko, Joseph Caterina, Jerry Crinelli, Tom Fiorelli, Rachel Galati, Ernest Lemoncelli, Bonnie Urzen, Lanette Hosie, Anita Lohin, Barbara Clifford, Carolyn Mizanty, Joshua Seamans, Sam Sebastianelli Sr. and Charles Walker)

Response

The protection of human health and the environment is fundamental to permitting under the Federal Clean Air Act ("CAA") and the Pennsylvania Air Pollution Control Act. The permit programs were designed and are implemented with the protection of public health and the environment as overarching goals. The Plan Approval cannot be issued unless the Department determines that the proposed project will satisfy all applicable regulations and the emissions will not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS).

There are two types of NAAQS for the criteria pollutants (sulfur dioxide [SO_2], particulate matter [PM], nitrogen oxides [NO_X], carbon monoxide [CO], ozone [O_3] and lead [Pb]): (1) Primary Standards, which are designed to protect human health, taking into consideration sensitive populations, including children, the elderly and individuals with respiratory ailments; and (2) Secondary Standards designed to protect public welfare, including effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, property, and climate, as well as effects on economic values and on personal comfort and well-being.

For this project, Lackawanna Energy was required to perform an air quality dispersion modeling analysis under federal Prevention of Significant Deterioration ("PSD") requirements. The use of computer dispersion modeling is used to predict ambient air impacts associated with projected emissions from the facility. These models consider background air quality, emissions from other sources, potential emissions for the proposed source, meteorological data, topography, and other relevant data.

The Department's technical review of the modeling for this project concluded that:

- "Lackawanna Energy Center's proposed emissions will not cause or contribute to air pollution in violation of the National Ambient Air Quality Standards (NAAQS) for CO, NO_2, and PM-10, and the PSD increment standards for NO_2 and PM-10."

- "Lackawanna Energy Center's proposed emissions, in conjunction with anticipated emissions due to general commercial, residential, industrial, and other growth associated with the proposed facility, will not impair visibility, soils, and vegetation"

- "Lackawanna Energy Center's proposed emissions will not adversely affect air quality related values (AQRV), including visibility, in federal Class I areas."

Therefore, the dispersion modeling shows that the facility will not adversely affect public health and welfare.

2. Comment

General concern about emission reduction credits ("ERCs"). (Rella Scassellati, Alex Lotorto, Joseph Caterina, Michael Guida, Jerry Crinelli, Tom Fiorelli, Ernest Lemoncelli, Lanette Hosie, Sam Sebastianelli Sr., Holly Petrochko, Clean Air Council)

Response

ERCs are required under air quality New Source Review requirements for new major emission sources, or sources undergoing major expansions, in regions that do not meet the EPA's national ambient air quality standards (NAAQS), which are known as nonattainment areas. ERCs are generally procured from sources that have shut down or voluntarily reduced their emissions and accepted enforceable emissions limits. Those ERCs are certified by the Department, banked and made available for new sources to purchase. Specifically, under Pennsylvania's NSR rules, which can be found at 25 Pa. Code § 127.206 et seq., the Department reviews ERC registration applications for compliance with regulatory requirements; maintains a statewide registry of ERCs; and deducts ERCs from the registry when ERCs are consumed in the issuance of a construction (plan approval) or operation permit. Emissions reductions from sources that cease operation or lower their emissions offset the projected emissions from new sources.

The amount of ERC's a new or modified source is required to obtain is based on a ratio designed to reduce overall emissions in the nonattainment area. For every one ton of potential emissions from a new facility, such as the Lackawanna Energy Center, they must acquire more than one ton of ERCs according to the applicable ratio. For example, a new source constructed in a severe nonattainment area is required to acquire 1.3 tons of ERCs for every 1 ton of projected emissions. The ratio is based on the status of the nonattainment area, whether it is marginal, moderate, serious, or severe. The lower the nonattainment status, the lower the ratio (i.e. Marginal nonattainment – 1.15 ton of ERCs for every 1 ton of potential emissions, Severe nonattainment - 1.3 tons of ERCs for every 1 ton of potential emissions). (*See* 25 Pa. Code § 127.210(a)).

How does this ERC system apply to Jessup and the Lackawanna Energy Center? The entire state of Pennsylvania is in the Ozone Transport Region ("OTR"), which is essentially a single, multi-state ozone nonattainment area that was established under Section 184 of the Clean Air Act (42 U.S.C. § 7511c) as part of the 1990 CAA amendments in order to address nonattainment with the ozone NAAQS in several northeastern states. While specific areas within the OTR, such as Lackawanna County, may not measure nonattainment based on air quality monitoring data (i.e. the air quality in Lackawanna County is actually in attainment with the ozone NAAQS), they are still classified as nonattainment areas for air quality permitting purposes under the New Source Review Program by virtue of the fact that they are included in the OTR under federal law. Therefore, nonattainment NSR requirements, such as the ERC program, apply.

Under sections 127.205(4) and 127.210 of Pennsylvania's New Source Review regulations (25 Pa. Code §127.205(4) and §127.210), Lackawanna Energy is required to purchase ERCs in order to offset its potential NOx and VOC emissions at a ratio of 1.15:1 (*See* 25 Pa. Code § 127.210(a)). Areas within the OTR are required to offset at a ratio amount equal to or greater than 1.15 to 1. Therefore, the plan approval contains a condition requiring Lackawanna Energy to purchase and apply 350.3 tons of NOx ERCs and 87.4 tons of VOC ERCs *prior to* commencement of operation of any sources at the facility. ERCs are required to be obtained from an ERC generating facility located within the same nonattainment area. 25 Pa. Code §127.208(10). Lackawanna Energy may obtain NOx and VOC ERCs from anywhere in Pennsylvania, as well as states within the OTR that have reciprocity agreements with the Commonwealth in accordance with 25 Pa. Code §127.208(5).

3. Comment

General concern about the representativeness of air dispersion modeling. (Janine Pavalone, Holly Petrochko, Jerry Crinelli, Anita Lohin, Tom Fiorelli, Sam Sebastianelli Sr., Clean Air Council)

Response

When a proposed major source will be located in an area that is in attainment with NAAQS for certain criteria pollutants, its air quality permit application is subject to the federal Prevention of Significant Deterioration ("PSD") program. Lackawanna County is classified as being in attainment for the criteria pollutants, therefore the Lackawanna Energy plan approval must comply with PSD requirements, which includes performing an air quality impact analysis using computer modeling. This modeling analysis takes into consideration not only the potential emissions from the proposed facility, but also the emissions from other facilities within a certain radius of the proposed plant. Meteorological data, topography and other relevant factors are incorporated the modeling to evaluate potential emissions impacts and ensure that the plant will not cause an exceedance of the NAAQS. These inputs help ensure that complex terrain and temperature inversions associated with the site location are accounted for in the modeling analysis.

Lackawanna Energy Center used the recommended U.S. EPA air dispersion model, AERMOD for its analysis. The modeling was conducted in accordance with U.S. EPA guidance as well as the Department-approved protocol for the project. The results demonstrated that emissions from the facility would not cause or contribute to air pollution in violation of the NAAQS. More specifically, the Department's Air Quality Modeling Section reviewed the modeling portion of the plan approval application and concluded that:

- Lackawanna Energy Center's proposed emissions will not cause or contribute to air pollution in violation of the NAAQS for CO, nitrogen dioxide (NO2), particulate matter less than 10 microns (PM10) and particulate matter less than 2.5 microns (PM2.5), and the PSD increment standards for NO2, PM2.5 and PM10.

- Lackawanna Energy Center's proposed emissions, in conjunction with anticipated emissions due to general commercial, residential, industrial, and other growth associated with the proposed Lackawanna Energy Center, will not impair visibility, soils, and vegetation.

- Lackawanna Energy Center's proposed emissions will not adversely affect air quality related values (AQRV), including visibility, in federal Class I areas.

4. Comment

General concern about emission monitoring and testing, and adherence to permit conditions. (Corey Mahon, Bonnie Urzen, Lanette Hosie, Barbara Clifford, Jason Petrochko, Vera Scoggins, Frank Finan, Sam Sebastianelli Sr., Charles Walker)

Response

The Pennsylvania Air Pollution Control Act and its implementing regulations, as well as the federal Clean Air Act and its implementing regulations, require the Department to include monitoring, recordkeeping, and reporting provisions in the Plan Approval that will measure compliance with the emission limits in

the Plan Approval. The Project must be operated and maintained in compliance with the conditions of the Plan Approval, and the failure to do so would subject the holder of the Plan Approval to various remedies designed to compel compliance with applicable regulations, as well as civil penalties.

The air contaminant emissions from the Lackawanna Energy Center will be monitored by a combination of continuous emission monitoring systems (CEMS), U.S. EPA reference method stack testing, and parametric monitoring as well as recordkeeping and reporting. Upon certification that the CEMS will operate in accordance with the methods and procedures acceptable to the Department and U.S. EPA, the emissions measured by the CEMS will be submitted electronically to the Department's Division of Source Testing and Monitoring in Harrisburg, PA. The data received by the Division of Source Testing and Monitoring is used to generate quarterly reports that are reviewed by the Department to verify compliance with the emissions limitations. In addition, Lackawanna Energy Center will conduct periodic stack tests and the Department typically observes testing of major sources to verify that acceptable test methods and procedures are utilized. The Department will also conduct unannounced inspections of the facility to ensure that it is operating in accordance with applicable regulations and the terms of its permit.

5. Comment

General concern about emissions control technology. (Alex Lotorto, Jerry Crinelli, Bonnie Urzen, Charles Walker)

Response

There are state and federal air quality permitting requirements that govern the emissions control technology and limits that Lackawanna Energy must employ at the facility. Under the Pennsylvania Air Pollution Control Act and the Pennsylvania Air Resources Regulations, a facility must implement Best Available Technology ("BAT") in controlling its emissions. BAT is defined as:

> Equipment, devices, methods or techniques as determined by the Department which will prevent, reduce or control emissions of air contaminants to the maximum degree possible and which are available or may be made available. 25 Pa. Code § 121.1.

The facility is also subject to federal PSD and Pennsylvania's nonattainment NSR requirements. The federal PSD program, which has been adopted by Pennsylvania, requires Lackawanna Energy to perform dispersion modeling to ensure that potential emissions from the facility will not violate NAAQS (*See* response No. 4 above) and implement Best Available Control Technology ("BACT") to limit emissions. Pennsylvania's Nonattaiment NSR program requires Lackawanna Energy to offset its potential emissions by acquiring ERCs at a ratio of 1.15:1 (*See* response No. 2 above) and to achieve Lowest Achievable Emission Rate ("LAER") requirements. The facility is also subject to the Federal National Emission Standards for Hazardous Air Pollutants ("NESHAPs") .

To identify appropriate emissions controls and limits that must be implemented under these regulatory requirements, applicants and regulators look to the U.S. EPA's RACT/BACT/LAER CLEARINGHOUSE ("RBLC"), which is a compilation of emission limits and controls placed into air quality permits across the United States. It is used as a resource to assist regulators in determining the appropriate emission limits and controls for a particular source category.

Primary controls being implemented by Lackawanna Energy to address these regulatory requirements include:

Pollutant	**Proposed BACT/LAER Technology**
$PM/PM_{I0}/PM_{2.5}$(BACT)	Exclusive natural gas, high-efficiency inlet air filters, Dry Low NOx combustion
CO (BACT)	Exclusive natural gas, combustion controls and oxidation catalysts
VOC (LAER)	Exclusive natural gas, combustion controls and oxidation catalysts
NOx (LAER)	Exclusive natural gas Dry Low NOx and Selective Catalytic Reduction
NH3 slip (BAT)	Exclusive natural gas, NH3 injection optimization and catalyst volume optimization
SO2 (BAT) and H2S04 mist (BACT)	Exclusive natural gas
GHG (BACT)	Good combustion practices, oxidation catalysts, exclusive natural gas, energy efficiency

Lackawanna Energy also included a detailed analysis for the method of controlling emissions for the emergency diesel engine generator, and fire pump, the auxiliary boiler and gas heaters. The analysis has demonstrated that the emissions from these sources are primarily controlled by good engineering practices and combustion technology.

The Department has determined that the proposed emissions controls satisfy the applicable regulatory requirements discussed above.

6. Comment

General concern about the chosen location of the proposed site. (Bob Bolus, Jerry Crinelli, Lanette Hosie, Tom Fiorelli, Ernest Lemoncelli, Janine Pavalone)

Response

In accordance with 25 Pa. Code § 127.205(5), an analysis shall be conducted of alternative sites, sizes, production processes, and environmental control techniques for the proposed facility, which demonstrates that the benefits of the proposed facility significantly outweigh the environmental and social costs imposed within this Commonwealth as a result of its location, construction or modification.

Lackawanna Energy has included a detailed discussion of alternative sites, electric generating capacities, production processes (which included other fossil fuels as well as renewable energy sources), and environmental control techniques for the proposed facility within the plan approval application. The Department has determined the requirements of 25 Pa. Code§ 127.205(5) have been satisfied. In addition, the Department refers the commenters to its response to comment No. 25 below for additional information regarding the chosen location for the facility.

7. Comment

General concern about greenhouse gas emissions, especially methane. (Ron Sebastianelli, Sam Sebastianelli Sr., Jerry Crinelli, Corey Mahon, Bonnie Urzen, Lanette Hosie, Joshua Seamans, Holly Petrochko)

Response

Potential Greenhouse Gas Emissions(GHG) were determined by Lackawanna Energy based upon the current methodologies (i.e. appropriate up to date calculation factors for GHGs, including methane). See 40 CFR Part 98. The Department has reviewed the analysis and has determined it to be appropriate under the PSD requirements. GHG emissions are reduced by employing the following practices at the facility: good combustion practices, oxidation catalysts, firing exclusive natural gas, and energy efficiency. Methane will primarily be combusted and thus not emitted, resulting in methane emissions having been estimated to contribute approximately only 0.007 % to facility-wide CO_2e emissions.

8. Comment

General concern about particulate emissions, especially $PM_{2.5}$. (Holly Petrochko, Tom Fiorelli, Rachel Galati, Lanette Hosie, Barbara Clifford, Joshua Seamans, Clean Air Council)

Response

Because the proposed project is defined as a major facility for criteria pollutants, including PM_{10} and $PM_{2.5}$, Lackawanna Energy was required by the PSD program to perform air dispersion modeling to demonstrate that the emissions from the proposed facility will not cause or contribute to a violation of any NAAQS. Lackawanna Energy used the U.S. EPA recommended model, AERMOD, which considers background air quality, emissions from other sources, potential emissions for the proposed source, meteorological data, topography, and other relevant data.

The Department's technical review of the modeling for this project concluded that:

- Lackawanna Energy's proposed emissions will not cause or contribute to air pollution in violation of the NAAQS for PM_{10} and $PM_{2.5}$.

- Lackawanna Energy's proposed emissions will not cause or contribute to air pollution in violation of the PSD increment standards for $PM_{2.5}$ and PM_{10}.

The PM_{10} and $PM_{2.5}$ emissions rates for Lackawanna Energy sources are grouped because their emission limits and rates are equal, and not because one is proposed as a surrogate for the other. PM_{10} includes all PM with an aerodynamic diameter less than 10 microns and therefore also includes PM with an aerodynamic diameter less than 2.5 microns. All particulate matter emissions are expected to have an aerodynamic diameter of less than 2.5 microns, and therefore the emission rates of the two (2) pollutants are equivalent. Furthermore, the calculated PM_{10} and $PM_{2.5}$ emissions include both filterable and condensable portions, which accounts for all PM_{10} and $PM_{2.5}$ emissions. However, if these were to be split then the calculated emission from PM_{10} and $PM_{2.5}$ would remain equivalent.

As stated in response to No. 5 above, in addition to exclusively firing natural gas, which has inherently low particulate emissions compared to other fuel sources, particulate emission controls for the project will be high-efficiency inlet air filters and Dry Low NOx combustion.

9. Comment

Concern about the impacts related to ozone. (Jason Petrochko, Tom Fiorelli)

Response

Lackawanna County, along with the rest of Pennsylvania, is located in the OTR, so ozone is regulated as if it were in nonattainment with National Ambient Air Quality Standards in that county. Lackawanna County is classified as a nonattainment area in spite of the fact that ambient monitoring shows that it is in attainment with ozone NAAQS.

For nonattainment pollutants and their precursors (in this case, NO_X and VOC), a Lowest Achievable Emission Rate ("LAER") analysis is required. In accordance with 25 Pa. Code§ 121.1, LAER is defined as:

> (i) The rate of emissions based on the following, whichever is more stringent:
>
> > (A) The most stringent emission limitation which is contained in the implementation plan of a state for the class or category of source unless the owner or operator of the proposed source demonstrates that the limitations are not achievable.
> >
> > (B) The most stringent emission limitation which is achieved in practice by the class or category of source.
>
> (ii) The application of the term may not allow a new or proposed modified source to emit a pollutant in excess of the amount allowable under an applicable new source standard of performance.

The Department has reviewed Lackawanna Energy's LAER analysis and determined that emission limitations, control technologies and techniques selected for this project represent LAER for NO_X and VOC. In addition to exclusively firing natural gas, controls for VOCs include combustion controls and oxidation catalysts, and for NOx include Dry Low NOx and Selective Catalytic Reduction. Air quality dispersion modeling performed for the project has shown that it will not cause a violation of NAAQS for ozone.

10. Comment

General concern about emissions of toxics and hazardous air pollutants ("HAPs"), including concern about HAP emissions from startup and shutdown. (Clean Air Council, Charles Walker, Kelly Finan, Ron Sebastianelli)

Response

Lackawanna Energy Center conservatively quantified HAP emissions from the combustion turbines (CTs) based on continuous operation (8,760 hours/yr) at full load utilizing AP-42 emissions factors from

Section 3.1 (Stationary Gas Turbines). AP-42 factors are representative values designed to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. They are used to estimate emissions from various emissions sources. The AP-42 emission factors used for Stationary Gas Turbines are based on uncontrolled gas turbines, and are conservative since the facility will employ catalytic oxidation emission control. The use of uncontrolled AP-42 emission factors and 8,760 hours of operation at full load, versus actual operating hours, overestimates HAP emissions for all three (3) operating scenarios (startup, shutdown, and steady-state operation). This calculation methodology ensures that the proposed project will not exceed the total 25 tons per year (TPY) and individual 10 TPY major source thresholds for HAPs.

11. Comment

HAPs dispersion modeling and an inhalation risk assessment should be conducted by Invenergy. (Clean Air Council)

Response

The Department's permitting policy document[1] only requires an inhalation risk assessment to be completed for facilities burning hazardous waste. The proposed Lackawanna Energy Center will not burn hazardous waste, therefore an inhalation risk assessment is not required to be included with the plan approval application.

The analysis conducted by the Clean Air Council (CAC) utilized the SCREEN3 model, which is a very limited screening-level model that typically results in a significant overestimation of ambient impacts. For example, the SCREEN3 model can only model a single emission source, so the CAC's analysis assumed that emissions from all three (3) combustion turbines (CTs) were emitted from a single stack. This invalid assumption incorrectly calculates overlapping ambient impacts from the emissions from the stacks. In addition, the SCREEN3 model is also unable to physically model the influence of buildings on dispersion, but rather applies a very conservative cavitation calculation factor within a calculated cavity zone surrounding a stack and building. The CAC's analysis used this calculation despite the fact that none of the stacks had a calculated cavity zone that extends beyond Lackawanna Energy's property line. Use of this cavity calculation is therefore inappropriate for evaluation of lifetime exposure and results in dramatically overestimated formaldehyde impacts.

In order to address the alleged concern of the ambient impact of formaldehyde that was raised by the CAC, Lackawanna Energy utilized the U.S. EPA's AERMOD air dispersion modeling methodology that was approved and utilized to evaluate the National Ambient Air Quality Standards (NAAQS) as part of Lackawanna Energy's Plan Approval Application. The AERMOD air dispersion model was utilized to conduct a more accurate analysis of formaldehyde impacts from the CTs than can possibly be made with SCREEN3 even if it were properly implemented. The AERMOD air dispersion model is more refined than SCREEN3 and incorporates a number of additional site specific inputs which include the use of actual meteorological data, actual terrain elevations for all ambient air receptors, incorporation of all buildings that influence dispersion, and allows for modeling multiple stacks.

Lackawanna Energy utilized AERMOD to evaluate chronic risk from formaldehyde utilizing procedures consistent with the Department's guidance[1] for conducting an inhalation risk assessment. Utilizing the

[1] Risk Assessment Guidelines for Facilities Burning Hazardous Waste, PADEP, 1993.

results from AERMOD in conjunction with the Department's risk assessment procedures, the chronic cancer risk from formaldehyde was predicted to be 0.016 in 100,000, which is far below the Department's target level of 1 in 100,000, and nearly two orders of magnitude lower than the result of CAC's SCREEN3 analysis. The Department's target level is designed to be insignificant compared to the national average lifetime incidence rate (40,000 in 100,000 based on the National Cancer Institute's 2010-2012 U.S. rates for incidence of all types of cancers)[2]. The Department's chronic risk target levels are based on all compounds of potential concern (COPC), not just formaldehyde. However, formaldehyde represents the COPC with the highest inhalation risk, taking into account both the emission rate and toxicity. Therefore, inclusion of all COPCs in the analysis would not appreciably change the predicted risk determination. Considering the fact that the predicted results are far below the Department's risk target levels, the Department is not requiring a full risk assessment.

12. Comment

Low hexane and formaldehyde emission factors may further underestimate HAP emissions. (Clean Air Council)

Response

Section E, Group 1, Condition #011 of the plan approval permit contains a requirement to conduct EPA reference method testing for hexane and formaldehyde. The actual emission factors obtained from this stack testing will be utilized to demonstrate compliance with Section C, Condition #006(a) emissions limit of 22.8 TPY of HAPs to ensure the facility remains below the total 25 TPY and individual 10 TPY major source threshold for HAPs.

The emission factor for formaldehyde emissions for gas turbines in AP-42 (Table 3.1-3) reflects emissions from uncontrolled gas turbines and is not representative of Lackawanna Energy's CTs which will control formaldehyde emissions via the use of catalytic oxidation. The plan approval includes a short term formaldehyde limit from the CTs, stack testing requirements, and emission reporting to ensure compliance with the emission limitations. The Department has added a facility-wide formaldehyde limitation as a condition of this Plan Approval to verify that it is a minor source with respect to HAP emissions.

13. Comment

Fugitive emission estimates are omitted, leaving some greenhouse gas ("GHG"), VOC, and HAP emissions unquantified and unaccounted for. (Alex Lotorto, Clean Air Council)

Response

Fugitive GHG emissions are included in the application and addressed by the plan approval. Methane (CH_4) and carbon dioxide (CO_2) are GHGs and therefore were included in the estimated GHG emissions from piping, values, flanges, compressors, and venting. Those emissions are included in the total GHG emission limit for the facility in the plan approval.

[2] National Cancer Institute, http://seer.cancer.gov/statfacts/html/all.html (accessed 11/17/2015).

Fugitive emissions of VOCs and HAPs are very minor, but are quantified. Fuel composition data shows that more than 99.9% of the fuel consists of methane, ethane, carbon dioxide, and nitrogen, none of which are VOCs or HAPs. Therefore, the total amount of VOCs and/or HAPs that could potentially be attributed to fugitive releases from piping, valves, flanges, compressors, and venting would be less than 0.1%. Utilizing the same calculation methodology that was used to calculate fugitive GHG emissions from piping, valves, flanges, compressors, and venting, fugitive VOC and HAP emissions would be estimated at 0.03 TPY. The Department will not increase the VOC and HAP limits in the plan approval for this additional 0.03 TPY.

14. Comment

General concern about visibility impacts, and request for an analysis be conducted for the Eales Preserve. (Holly Petrochko, Tom Fiorelli, Anita Lohin, Rella Scassellati, Sam Sebastianelli Sr.,Janine Pavalone)

Response

In accordance with 40 CFR 52.21(o), Lackawanna Energy Center conducted additional impact analyses for the project, which included a visibility impairment analysis for five (5) state parks within 50 kilometers of the Project site utilizing a screening model, which predicts worst case plume perceptibility and contrast. As summarized in Section 11.1 of the plan approval application, the analysis concluded that plume perceptibility and contrast were determined to be below U.S. EPA default criteria and therefore demonstrate that the project plume will not impact visibility.

Also, due to the project's emissions controls, it is very unlikely that a plume will be perceivable from the natural gas combined cycle power plant at Lackawanna Energy Center at the Eales Preserve, or at any other similar private resource. Furthermore, Section C, Condition #004 of the plan approval permit contains visible opacity limitations that will ensure that visible air impacts will be limited.

15. Comment

General concern about the noise impacts. (Holly Petrochko, Lanette Hosie, Rella Scassellati)

Response

Jessup has a zoning ordinance that contains provisions regulating noise within the Borough. Article 6 of the ordinance, which applies to "[a]ll existing and proposed permitted uses, special exceptions, and conditional uses and uses accessory thereto," contains performance standards and procedures for addressing, among other things, noise. Specifically, section 6.430, which was amended on August 5, 2013, establishes permissible sound levels for various zoning districts within the Borough, including the M-1A zone where Lackawanna Energy is seeking to construct the plant. The ordinance is available on the Borough's website at http://www.jessupborough.com/departments/zoning/zoning-ordinance/

In consideration of the noise concern the Department presented the issue to Lackawanna Energy. The Department's understanding is that the company conducted a noise modeling analysis demonstrating that the project complies with the requirements of the Jessup ordinance and that this analysis was provided to the Borough as part of Lackawanna Energy's Conditional Use Permit application, which was approved on December 21, 2015. Through this approval, the Borough has imposed conditions on Lackawanna

Energy that must be complied with. In addition, the Department has included language in the plan approval which states, "[n]othing in this Plan Approval relieves the facility owner or operator from its obligations to comply with all applicable federal, state, and local laws and regulations." This would include Jessup's local ordinance pertaining to noise.

16. Comment

General concern about natural gas-fired power plant being considered "clean" and Lackawanna Energy Center's comparison with coal-fired power plants. (Sam Sebastianelli, Sam Sebastianelli Sr., Holly Petrochko, Jerry Crinelli, Tom Fiorelli, Rachel Galati, Bonnie Urzen, Lanette Hosie)

Response

The project will be required to employ modern air pollution control technology used in similarly designed natural gas fired power plants throughout the United States, based on the RBLC.

17. Comment

General concern about the storage of hazardous chemicals on site and risk. (Anita Lohin, Ernest Lemoncelli)

Response

The storage of hazardous chemical in this matter is regulated under the Pennsylvania Storage Tank and Spill Prevention Act. Specific responsibilities under Pennsylvania's Storage Tank Program include tank registration, certification of tank handling and inspection, permitting of tanks, establishment of technical and operational standards for aboveground storage tank systems, and procedures for reporting of releases and corrective action by tank owners. For new aboveground storage tanks greater than 21,000 gallons or at a new facility with an aggregate capacity of the regulated storage tanks greater than 21,000 gallons, a Site Specific Installation Permit ("SSIP") is to be submitted and approved before installation of the storage tank system(s) can begin. Based on information provided to the Bureau of Environmental Cleanup and Brownfields, this facility will require an approved Site Specific Installation Permit.

Before a SSIP is issued for this facility, the application will be published in the PA bulletin for public comment. All regulated aboveground storage tanks are required to be installed by or under the on-site supervision of a DEP certified installer to ensure the tank(s) are installed to meet nationally recognized standards as well as meet regulatory requirements. In addition, Lackawanna Energy Center will file an Emergency Response Plan with the Department that addresses storage of chemicals as well as other potential hazards at the facility. This plan will also contain a Spill Prevention, Control, and Countermeasures ("SPCC") Plan meeting U.S. EPA requirements.

18. Comment

Concern about increased emissions from using Air Cooled Condensers. (Jerry Crinelli, Rella Scassellati, Clean Air Council)

Response

Under the original plan approval application, water rather than air cooling was proposed. Lackawanna Energy later amended its application and proposed air cooling. One of the reasons the plan approval application was changed to include air cooling was to address concerns over potential impacts to available water usage. Use of air cooling did not require an increase in permitted emission limits. In fact, it resulted in a reduction of PM, PM 10 and PM 2.5 limits.

19. Comment

Aggregate impacts from pipeline connection have not been adequately considered and potential air pollution impacts of this connection remains unaccounted for. (Clean Air Council)

Response

Fugitive emissions from on-site piping, valves, flanges, compressors, and venting are included in the application and addressed by the plan approval. Emissions from other, off-site facilities, which are not owned or controlled by Lackawanna Energy, are separately regulated, and aggregation or regulation of those facilities by this plan approval is not appropriate or necessary.

20. Comment

Concern about the source of natural gas and the potential for radon in Marcellus natural gas. (Charles Walker, John Mellow)

Response

The project will obtain its natural gas from UGI, the same local gas utility that already serves residential, commercial, and industrial users in the area. With regard to radon, in 2013, the Department initiated a study to collect data relating to technologically enhanced naturally occurring radioactive material (TENORM)[3] associated with oil and gas operations in Pennsylvania. This study included the assessment of potential worker and public radiation exposure, TENORM disposal, and other possible environmental impacts. It specifically included the evaluation of a natural gas fired power plant where ambient air radon concentration measurements were performed at the facility fence line. The results were all at or below the minimum detection concentration values for radon. The study concluded that there is little potential for additional radon exposure to workers and the public at or from natural gas-fired power plants.

21. Comment

Concern about the impact of the project on property values. (Holly Petrochko, Michael Fiorelli, Ernest Lemoncelli, Joshua Seamans)

[3] PA Department of Environmental Protection. "Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) Study." January 15, 2015. Available at: http://www.portal.state.pa.us/portal/server.pt/community/oil___gas_related_topics/20349/radiation_protection/986697

Response

The Department's understanding is that as part of the project's Conditional Use Permit Application to the Borough of Jessup, Lackawanna Energy prepared a report reflecting a review of the literature relating to the impact of power plants on nearby residential property values in the United States. The reports concluded that any effects of the project on nearby property values will be insignificant, if any effect occurs at all.

22. Comment

Concern about the project's zoning. (Janine Pavalone, Michael Firoelli, Jason Petrochko, Ron Sebastianelli, Bob Bolus, Jerry Crinelli)

Response

Under Sections 10619.2 and 11105 of the Pennsylvania Municipalities Planning Code ("MPC"), 53 P.S. §§ 10619.2 and 11105, state agencies "shall consider and may rely upon comprehensive plans and zoning ordinances when reviewing applications for…the permitting of…facilities." The Department has interpreted this language to mean that it can deny an application, approve an application, suspend review of an application, or put a special condition on a permit when conflicts have been identified.

To provide guidance on how to exercise its discretion, the Department has developed a policy called the Policy for Consideration of Local Comprehensive Plans and Zoning Ordinances in DEP Review of Authorizations for Facilities and Infrastructure - Document No. 012-0200-001 ("Land Use Policy"). The Land Use Policy applies to certain Department approvals or authorizations, including major sources applying for PSD and nonattainment New Source Review permits, and discusses how the Department should rely upon comprehensive plans and zoning ordinances in reviewing applications. That reliance includes several options noted in the previous paragraph (i.e. approval, denial, suspension of review or issuance with conditions).

In this case, the Department determined that the Land Use Policy applied to Lackawanna Energy's plan approval application and it monitored Jessup Borough's local land use decisions concerning the proposed facility while the application was under review. On September 14, 2015, the Jessup Borough Council voted to amend its zoning ordinance to allow power plants to be located in the M1-A zoning district in which the Lackawanna Energy Center is proposed to be located. On October 15, 2015, Lackawanna Energy submitted a Conditional Use Permit Application asserting that the project is consistent with the requirements of the Borough of Jessup's zoning ordinance. On December 21, 2015, the conditional use permit was granted establishing conditions with which Lackawanna Energy must comply in order to retain its permit. Based on these decisions, the Department's understanding is that local land use approvals have been granted and there do not appear to be any issues under Sections 10619.2 and 11105 of the MPC.

23. Comment

Concern about the overall size of the project. (Tom Fiorelli, Jerry Crinelli)

Response

The physical dimensions of the project are regulated under the Borough of Jessup zoning ordinance, and not under the Pennsylvania Air Pollution Control Act or federal Clean Air Act.

24. Comment

Concern about the wastewater discharge and potential impacts on drinking water. (Barbara Clifford, Joshua Seamans, Vera Scroggins, Kelly Finan)

Response

While this subject is not specifically regulated under the Air Pollution Control Act or federal Clean Air Act, the Department is providing a response.

Wastewater discharge is regulated under the National Pollutant Discharge Elimination System ("NPDES") permit program. An industrial NPDES permit must be obtained for the discharge of treated industrial wastewater and an application is pending. The Department is holding a public meeting and hearing on the industrial NPDES permit application on January 4, 2016 at the Valley View High School, at which time citizens can ask questions and provide comments on the pending permit application.

The discharge water quality from Lackawanna Energy will be required to meet all NPDES permit limits as prescribed by the Department if a permit is granted. Any permit limits will be designed to manage the impacts of sedimentation, water chemistry, and temperature in receiving waters after the facility becomes operational. In proposing water quality limits for the project, the Department applied Pennsylvania's anti-degradation policy, resulting in stringent proposed limits designed to ensure that discharges from the facility would not degrade the quality of the receiving waters. No potential impacts to drinking water in the region have been identified.

25. Comment

Concern about the geology and stability of site given historical mining and old landfill at the proposed location. (Lanette Hosie, Bob Bolus, Joseph Piconi, Janine Pavalone)

Response

Potential constructability issues are regulated under Jessup Borough's zoning ordinance and applicable building codes, and not under the Pennsylvania Air Pollution Control Act or federal Clean Air Act. Nevertheless, the Department is addressing the comment.

According to Lackawanna Energy, they have retained the services of Geo-Science Engineering who has conducted a series of geotechnical investigations at the project site to develop an understanding of subsurface geologic characteristics. Additionally, Lackawanna Energy Center's construction contractor has performed a second set of geotechnical investigations with their own geotechnical expert. The results of these two studies show the site bedrock and dynamically compacted soil provide soil bearing pressure that provides for the safe design and construction of foundations for the project.

A preliminary geophysical investigation was also performed in order to better locate underground voids which may pose a risk due to potential subsidence. The results showed potential underground voids at a

depth of 80 feet below current grade of limited thickness. Once the early site work activities have been completed, a final confirming geophysical investigation will be performed directly on exposed bedrock. Any remaining voids will be evaluated and potentially grouted if required.

Regarding the abandoned landfill, a waste management plan describing in detail how any waste that might be encountered during the development of the site will be handled was submitted to the Department, reviewed by the Department's Waste Management Program, and approved. The waste management plan includes details of how the activities will be monitored to ensure the safety of the workers on site, the community, and the environment. There will be trained personnel on site at all times when any old waste material is disturbed. These trained individuals will monitor the air for potential worker exposure to hazardous chemicals and they will assess any waste material encountered to determine if it is typical municipal waste or waste that needs to be further evaluated. If waste materials need to be further evaluated, it will be segregated and tested. Depending on the nature of the material removed, proper storage, transportation, and disposal will be determined. If hazardous materials are encountered, the area where the materials are found will be evaluated for potential further remediation measures.

26. Comment

Concern about the increased demand on Marcellus gas drilling induced by the project. (Kelly Finan, Barbara Clifford, Vera Scroggins)

Response

Emissions from other, off-site activities, which are not owned or controlled by Lackawanna Energy Center, are separately regulated and consideration of those facilities under this plan approval is not appropriate. The concerns about natural gas future pricing and shale gas development are beyond the scope of the Department's review of the plan approval application for this facility.

27. Comment

Concern about the public participation process. (Janine Pavalone)

Response

Each plan approval application is required to go through public notice and a public comment process, which is outlined in 25 Pa. Code §§ 127.44 - 127.51. Notice of receipt of Lackawanna Energy's application was published in the Pennsylvania Bulletin after both the initial application was received on June 5, 2014 and after the revised application was received on November 3, 2014. On August 1, 2015 the Department published notice of intent to issue the plan approval in both the Pennsylvania Bulletin and in the local newspaper. A thirty day public comment period was opened and extended to forty-five days. That public comment period ended on September 16, 2015.

In response to requests from the public, the Department also held a public meeting and hearing on September 2, 2015 at the Valley View High School. Public meetings and hearings are not required, but may be held by the Department pursuant to 25 Pa. Code § 127.48. The hearing was advertised in the Scranton Times on August 1st, 2nd, and 3rd, 2015. The Department has now prepared this comment

response document to address the written and oral comments received during the entire public participation process.

In addition to this process, the Department attended an open house session in Peckville, PA on March 4, 2015. The open house provided an opportunity for the public to meet with Department staff, as well as representatives from Lackawanna Energy, and ask questions about the proposed project.

Based on this record, the Department believes that it has provided sufficient public participation opportunities during the review of the plan approval application and considered all of the comments received during the review period.

28. Comment

Concern about the permit violation enforcement process. (Bonnie Urzen, Lanette Hosie, Corey Mahon, Charles Walker)

Response

The Department requires Lackawanna Energy to comply with all stated emission limits listed in the Plan Approval. Lackawanna Energy is required by permit to record these monitored emissions and provide them in quarterly compliance reports to the Department. These reports not only quantify the pollutant emissions, but also must report any equipment malfunctions. Lackawanna Energy will be held accountable through Department enforcement procedures for any emissions exceedances or failure to monitor the emissions, for calibration and for maintenance. The Department uses an established penalty enforcement policy which is discussed below.

Lackawanna Energy is also required to conduct initial performance and biannual stack testing for emissions of NO_X, CO, VOC, SO_2, H_2SO_4, PM, PM_{10}, $PM_{2.5}$, NH_3, and certain HAP emissions. The required emissions testing must be conducted using test methods and procedures that the Department approves in advance of the testing. Department personnel must be notified in advance of the testing so that they can observe the testing while it is being conducted.

For reporting purposes, Lackawanna Energy Center is required to submit semi-annual reports that include the NO_X, CO, VOC, GHG, total HAPs, SO_2, H_2SO_4, PM, PM_{10}, $PM_{2.5}$, NH_3, and SF_6 emissions. This report includes emissions calculations from all air-contaminant sources, tabulated on a monthly basis, in order to demonstrate compliance with the emission limitations for all sources at the facility. All combined cycle units will be equipped with Continuous Emissions Monitors ("CEMS") to monitor and record NOx, CO and VOCs. Reports shall be submitted on a quarterly basis in accordance with the Continuous Source Monitoring Manual, Revision 8. All other permitted sources shall calculate emissions based on source testing or best available emission factors.

All of the CEMS reported emissions and operating data are subject to the Department's Compliance Assurance Policy for CEMS on Combustion Units. This policy establishes uniform criteria for assessing monetary penalties for exceedances of emission standards and data availability requirements. The Department always reserves the right to take other enforcement action beyond that which is specified in this policy when warranted.

For other than CEM reported violations and deviations from permit requirements, the Air Program staff of the Department will follow the Department's policy of Guidelines for Identifying, Tracking and Resolving Violations for Air Quality. This policy establishes specific procedures for the Air Program staff to use for implementing the provisions of the Department-wide Policy of Standards and Guidelines for Identifying, Tracking and Resolving Violations. For determining the amount of penalty that should be assessed for these violations and deviations, the Air Program staffs utilizes the Department's policy for the Application of Regional Civil Penalty Assessments.

This policy implements the assessment of penalties specifically provided for under the Pennsylvania Air Pollution Control Act ("APCA"), Section 9.1 (a), which authorizes the Department to assess civil penalties for violations of provisions of the Act, regulations adopted under the APCA or violations of any order, plan approval or permit issued by authority of the APCA. The APCA provides for assessment of a penalty of up to $25,000 per day for each separate violation. Section 9.1 of the APCA requires that in determining the amount of the penalty, the Department must consider the willfulness of the violation; damage to air, soil, water or other natural resources of the Commonwealth or their uses; financial benefit to the person in consequence of the violation; deterrence of future violations; cost to the department; the size of the source or facility; the compliance history of the source; the severity and duration of the violation; degree of cooperation in resolving the violation; the speed with which compliance is ultimately achieved; whether the violation was voluntarily reported; other factors unique to the owners or operator of the source or facility; and other relevant factors.

Through the above noted monitoring, reporting, policies and enforcement authority, the Department will assure that the Lackawanna Energy Center will be operated in accordance with all of the requirements in its plan approval and operating permit.

29. Comment

Are there natural gas compressor engines present along with the natural gas combustion turbines at the plant. (Alex Lotorto)

Response

There are no natural gas compressor engines present at the Lackawanna Energy facility.

30. Comment

Was the EPA natural gas STAR program considered in preparing the plan approval. (Alex Lotorto)

Response

The EPA natural gas STAR program is a voluntary partnership that encourages oil and natural gas companies to reduce methane emissions in their operations. The methane emission reducing technologies and practices discussed in the STAR program are geared towards the production, gathering, transmission and distribution of natural gas and not necessarily the end users. Electric generating facilities are considered only end users of natural gas and are not included in the partnership of STAR program participants. The majority of natural gas supplied to the plant will be burned in the combustion turbines with only minor amounts released as unburned fuel.

31. Comment

General concern about cumulative effects. (Janine Pavalone, Mike Fiorelli, Carolyn Mizanty)

Response

Lackawanna Energy Center's Plan Approval application is subject to the requirements of the PSD Program, which includes the need to perform an air quality modeling analysis. The modeling analysis takes into consideration emissions from the proposed source, as well as sources of other emissions within a certain area. Lackawanna Energy Center performed such modeling, and the results demonstrated that emissions from the proposed facility would not cause or contribute to air pollution in violation of the NAAQS, which are designed to protect health, welfare and the environment. In addition, the analysis adequately demonstrates that Lackawanna Energy's proposed emissions, in conjunction with anticipated emissions due to general commercial, residential, industrial, and other growth associated with the facility, will not impair visibility, soils, and vegetation. Additional information regarding this issue is provided the Department's response to Comment No. 1 above.

32. Comment

General concern about endangered species and general impacts to plants and animals. (Holly Petrochko, Joseph Caterina, Anita Lohin and Janine Pavalone)

Response

The Clean Air Act (CAA) established two types of NAAQS: (1) Primary Standards, which are designed to protect human health, taking into consideration sensitive populations, including children, the elderly and individuals with respiratory ailments; and (2) Secondary Standards, designed to protect public welfare, including effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, property, and climate, as well as effects on economic values and on personal comfort and well-being. The Secondary Standards are designed to provide protection for animals, and, as discussed above, Lackawanna Energy was required to perform air quality dispersion modeling to demonstrate that the facility would not cause exceedances of the NAAQS. The modeling did not indicate that there would be any exceedances or raise concerns that protection of plants and animals would be jeopardized.

Additionally, Lackawanna Energy has performed a Pennsylvania Natural Diversity Inventory ("PNDI") search of the project area and consulted with other state and federal agencies responsible for wildlife management. The latest PNDI search was conducted on May 11, 2015. It identified potential impacts to the Small-Footed Bat and both the Colin's Sedge and Tuckerman's Pondweed species of plants. These potential impacts were forwarded to the PA Game Commission and PA Department of Conservation and Natural Resources for further review, whereby both agencies responded that no impacts are likely from the proposed Lackawanna Energy plant.

33. Comment

Lackawanna Energy should have been required to submit a modification of the plan approval application rather than submitting various amendments. (Janine Pavalone)

Response

In the process of amending an existing plan approval application, there are no set guidelines pertaining to the degree of revisions that would warrant a complete resubmittal of the entire plan approval application. After Lackawanna Energy submitted the initial plan approval application on June 11, 2014, the company informed the Department that the General Electric Model 7HA.01 combustion turbines would be replaced with Model 7HA.02 turbines. This change would increase the overall generating capacity of the plant. Since the turbines are the major components of the project and generate the bulk of the emissions, the Department determined that the entire application needed to be revised to incorporate this change and revise the air quality modeling. As the review of the amended application progressed, several more minor revisions were made that the Department felt did not require a complete resubmittal of the entire application. These were handled by the submittal of the updated corresponding pages of the application that dealt with the revisions being proposed. Handling smaller revisions in this manner is not uncommon during the plan approval application review process.

34. Comment

Concerns about emergency response procedures. (Jason Petrochko, Holly Petrochko, Bob Bolus, Ernest Lemoncelli, Lanette Hosie, Anita Lohin, John Mellow)

Response

Lackawanna Energy has prepared a Preparedness, Prevention and Contingency ("PPC") Plan for the facility which includes emergency response plans and procedures, and has submitted it to the Department. The PPC Plan was prepared in accordance with a guidance document issued by the Department for the preparation of such plans ("Guidelines for the Development and Implementation of Environmental Emergency Response Plans", PA Department of Environmental Protection, September 2001). Consistent with Department guidance, the PPC Plan includes a description of the facility, preventative and training measures, a list of emergency contacts and coordination procedures, including with the Department in case of emergencies impacting air quality, and other information to ensure emergency response is well-coordinated with and protective of the public. In addition, the Section C, Condition #019 of the draft plan approval requires Lackawanna Energy to contact the Department within one hour of any excess emission or deviation event that poses an imminent and substantial danger to the public health and safety or environment. This requirement is integrated into the PPC Plan. The Department also understands that Lackawanna Energy is required to address emergency response plans and procedures as part of the conditional use permit that was granted by Jessup Borough on December 21, 2015.

35. Comment

DEP is rushing to approve the plan approval in light of PA failing to adopt the state measures of the Clean Power Plan. (Janine Pavalone)

Response

The final Clean Power Plan ("CPP") provides to the states guidelines for the development, submittal and implementation of state plans that establish standards of performance or other measures for affected electrical generating units in order to implement the interim and final CO2 emission performance rates. It also established a separate standard for stationary combustion turbines firing

natural gas. This standard reflects the degree of emission limitation achievable through the application of the Best System of Emission Reduction ("BSER") that EPA has determined has been adequately demonstrated for gas-fired turbines. EPA has determined that the BSER for new combustion turbines is utilizing natural gas combined cycle technology, which is being constructed by Lackawanna Energy. The final standard also established an emission limit of 1,000 pounds CO2 per megawatt-hour for new base load combustion turbines.

Although PA has not yet finalized a plan to meet the goals of the CPP, the Lackawanna Energy plant is in conformance with the BSER and CO2 emission limit standards. The Lackawanna Energy plant is utilizing combined cycle technology and their calculated CO2 emission rate equates to approximately 761 lbs. CO2 per megawatt-hr. This calculation used the value in the application for CO2 equivalents, which actually is more than CO2 alone since it incorporates the emissions of the six gases that comprise the Greenhouse Gas category.

36. Comment

These individuals' comments in are support of the Project. (Jeff Addley, Doris Burda, Richard Schraeder, David Horn, Jack Figure)

Response

The Department acknowledges those who have submitted comments in favor of the project.

FINAL DETERMINATION

Pursuant to 25 Pa. Code Chapter 127, all comments submitted during the public hearing have been reviewed, considered and are appropriately addressed in this document. The Department has determined that, after consideration of all comments received and revisions to the Plan Approval, the available information indicates that Lackawanna Energy Center, LLC can construct an electrical generation plant with associated control devices in Jessup Borough, Lackawanna County. It shall meet the emission limitations and the conditions set forth in their application and Plan Approval 35-00069A, and will comply with all applicable State and Federal air quality regulatory requirements.