***Comment Response Document***

***Commonwealth of Pennsylvania***

***Department of Environmental Protection***

*Lackawanna Energy Center LLC*

*Permit Decision*

*Plan Approval 35-00069B*

*Borough of Jessup, Lackawanna County*

***Public Comment Period Dates***

***May 14, 2016 – June 30, 2016***

***Public Hearing on June 20, 2016***

***July 12, 2016***

**Department of Environmental Protection**

[**www.depweb.state.pa.us**](http://www.depweb.state.pa.us)

**PROJECT DESCRIPTION**

On May 14, 2016, the Department of Environmental Protection (Department or DEP) published in *The Pennsylvania Bulletin* a Notice of Intent to Issue Plan Approval No. 35-00069B for Lackawanna Energy Center LLC (the Permittee) to modify the plant layout of the Lackawanna Energy Center in the Borough of Jessup, Lackawanna County, as described in the Permittee’s February 19, 2016 Plan Approval application. This Plan Approval is for a configuration change to the plant layout of the proposed Lackawanna Energy Center in the Borough of Jessup, Lackawanna County, which is authorized under the previously issued Plan Approval 35-00069A. The configuration change does not add any new emission sources, change emission limits, or impose any additional requirements that have not already been reviewed and included in Plan Approval 35-00069A.

This modification is limited to proposing utilizing (3) smaller steam turbines and three (3) smaller air cooled condensers in place of the original planned single steam turbine and single air cooled condenser. Neither the steam turbines nor the air cooled condensers are air emission sources.

Due to the reconfiguration of the plant layout, a Plan Approval application was required to incorporate the revised air quality modeling that was required to be conducted to assure this change would not cause any violation of the National Ambient Air Quality Standards.

**LIST OF COMMENTERS**

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| **The following is a list of individuals who provided comments to the Department on Plan Approval Application No. 35-00069B** | |
| 1. | Ron Sebastianelli |
| 2. | Ernest Lemoncelli |
| 3. | Sam Sebastianelli |
| 4. | Alex Lotorto |
| 5. | John Mellow (Written comments submitted to DEP) |
| 6. | Rella Scassellati (Written comments submitted to DEP) |

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 June 20, 2016, the Department held a public hearing at the Valley View High School concerning the proposed Plan Approval 35-00069B 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.

**Public Comments and Department Responses**

**1. Comment**

*Concern about the geology and stability of site given historical mining and old landfill at the proposed*

*location. (Ron Sebastianelli, Sam Sebastianelli, Alex Lotorto)*

**Response**

Potential constructability issues are regulated under Jessup Borough’s zoning ordinance and applicable building codes.

Lackawanna Energy, retained the services of Geo-Science Engineering which 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 performed a second set of geotechnical investigations with their own geotechnical expert. The Department’s understanding is that 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.

Land use approval letters were completed by both Lackawanna County and Jessup Borough as part of the review of the existing Plan Approval 35-00069A and were resubmitted as a reference for this plan approval.

**2. Comment**

*Concern about the project exceeding nonattainment new source review thresholds. (Ernest Lemoncelli, Rella Scassellati)*

**Response**

This proposed Plan Approval application addresses only the configuration change to the plant layout, which does not change any emission rates or limits. The requirements that must be met to address major source threshold levels were addressed in the review of the initial Plan Approval 35-00069A.

**3. Comment**

*Concerns about emergency response procedures. (Ernest Lemoncelli, John Mellow)*

**Response**

This Plan Approval addresses only the configuration change to the plant layout, which does not change any emergency response requirements. Concerns about emergency response were raised during the comment period for Plan Approval 35-00069A. That response is repeated below for reference:

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.

Furthermore, with respect to coordinated response exercises, Lackawanna Energy has already conducted cooperative exercises and drills with local emergency responders, and will continue to do so on a regular basis throughout construction and operation. Lackawanna Energy will invite the Lackawanna County Emergency Management Agency to participate in those exercises if it is appropriate. The Department also has an Emergency Response Team that is available to respond and assist local emergency management officials and first responders in case an event occurs that requires the Department to respond.

**4. Comment**

*Concern about the storage of ammonia on site and risk of a spill. (Ernest Lemoncelli)*

**Response**

The storage of hazardous chemicals 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”) application is to be submitted and approved before installation of the storage tank system(s) can begin. Based on information provided to the DEP’s Environmental Cleanup and Brownfields Program, this facility requires an approved SSIP, and on January 13, 2016, SSIP #16-35-008 was issued for this facility.

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 has filed an Emergency Response Plan with the Department that addresses storage of chemicals as well as other potential hazards at the facility. This plan contains a Spill Prevention, Control, and Countermeasures (“SPCC”) Plan meeting U.S. EPA requirements.

**5. Comment**

*Concern about the chosen location of the proposed site and the alternatives analysis. (Ernest Lemoncelli)*

**Response**

This Plan Approval addresses only the configuration change to the plant layout, which does not change the location of the site or any of the requirements that were previously permitted under Plan Approval 35-00069A.

However ,concerns about alternative sites were raised during the comment period for Plan Approval 35-00069A, and the relevant excerpt of the response is repeated below for reference:

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.

**6. Comment**

*Concern about increased emissions using Air Cooled Condensers. (Sam Sebastianelli)*

**Response**

The air cooled condensers are not a source of emissions, and the use of three smaller air cooled condensers instead of one larger air cooled condenser does not affect the emissions or the efficiency of the project.

Concerns about air cooling were raised during the comment period for Plan Approval 35-00069A, and the response is repeated below for reference:

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.

**7. Comment**

*Concern about emission reduction credits (ERCs) and the location of the source of the purchased ERCs. (Alex Lotorto, John Mellow, Rella Scassellati)*

**Response**

This Plan Approval addresses only the configuration change to the plant layout, which does not change emission rates or limits. The requirement to purchase emission reduction credits (ERCs) is related to the emission rates, not the configuration and layout, as a result, no requirements related to the purchase of ERCs have been changed,

Concerns about ERCs were raised during the comment period for Plan Approval 35-00069A, and the response is repeated below for reference:

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).

**8. Comment**

*Concern about air modeling, potential inversion conditions, and the potential for cumulative impacts with existing and proposed power plants in Archbald. (John Mellow)*

**Response**

This Plan Approval incorporated revised air quality modeling that was conducted to assure the change in configuration would not cause any violation of the National Ambient Air Quality Standards (“NAAQS”). The revised air quality modeling included nearby existing and proposed power plants in Archbald, and the cumulative modeling analyses showed that the combination of plants would not cause any violation of the NAAQS.

Additionally, concerns about potential inversion conditions were raised during the comment period for Plan Approval 35-00069A, and the response is repeated below for reference:

For the approval of permits for which the requirements of the PSD program applies, applicants like Lackawanna Energy Center are required to perform an air quality dispersion modeling analysis that takes into consideration emissions from other sources within a certain radius to ensure that the NAAQS will not be exceeded. These models consider background air quality, emissions from other sources, potential emissions for the proposed source, meteorological data, topography, and other relevant data. Hence, the complex terrain and temperature inversions associated with the site location, are accounted for in the meteorological and terrain data.

Lackawanna Energy Center performed the modeling using the recommended U.S. EPA air dispersion model, AERMOD, and the modeling was conducted in accordance with U.S. EPA guidance as well as the Department-approved air modeling protocol for the Project. The results demonstrated that emissions from the proposed facility would not cause or contribute to air pollution in violation of the NAAQS. The Department conducted a thorough technical review of the modeling for this project 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.

**9. Comment**

*Concern about the potential for radon in Marcellus natural gas. (John Mellow)*

**Response**

This Plan Approval addresses only the configuration change to the plant layout, which does not change emission rates, limits, or the plant’s fuel supply. However, concerns about radon were raised during the comment period for Plan Approval 35-00069A, and the response is repeated below for reference:

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.

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

**FINAL DETERMINATION**

Pursuant to 25 Pa. Code Chapter 127, all comments submitted during the June 20, 2016 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 the proposed revisions to Plan Approval 35-00069A, which are limited to a change in configuration of the layout of the plant and the use of three (3) smaller steam turbines and three (3) smaller air cooled condensers in place of the original planned single steam turbine and single air cooled condenser, the available information indicates that the proposed revisions are acceptable. Lackawanna Energy Center shall meet the emission limitations and the conditions set forth in their application and Plan Approval, and will comply with all applicable State and Federal air quality regulatory requirements.