

SOUTHWEST REGIONAL OFFICE

MEMO

TO Air Quality Permit File PA-26-00588

FROM Alan A. Binder *AAB*
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THROUGH Mark R. Gorog, P.E. *MRG* Mark A. Wayner, P.E. *MAW*
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DATE March 21, 2011

RE Comments and Response Document
Natural Gas Production Facility
Laurel Mountain Midstream Operating, LLC
Shamrock Compressor Station
German Township, Fayette County

The Department has received an application for plan approval to install and begin operation of three new natural gas compressor engines and one turbine, and to incorporate all sources currently authorized for installation at the Shamrock Compressor Station ("Shamrock") to be located in German Township, Fayette County. Review of this application by the Department has been completed and copies of the draft plan approval and review memo were emailed to Ms. Lisa Reaves at Laurel Mountain Midstream Operating, LLC and project consultant Mr. Walter Konkell for review prior to issuance of the plan approval. This memo documents activity that has taken place since the review memo was finalized.

In accordance with Pa. Code Title 25 § 127.44, notice of intent to issue the plan approval was published in the *Pennsylvania Bulletin* on November 13, 2010. The required 30-day public comment period ended at the close of business on December 13, 2010.

Six comments were received from a resident of Fayette County, Mr. James Rosenberg, on December 8, 2010. Each comment is listed in Attachment 1 followed directly by the response.

One comment was received from residents of Fayette County, Mr. Gregory R. Peck, and Mrs. Kimberly A. Peck, on December 9, 2010. The comment is listed in Attachment 2 followed directly by the response.

Five comments were received from Joe Osborne, Esq., Legal Director for Group Against Smog & Pollution (GASP), on December 13, 2010. The comments are listed in their entirety in Attachment 3 followed by the responses.

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Seven comments were received from the applicant on December 13, 2010. The comments are listed in their entirety in Attachment 4 followed by the responses.

Several Department-initiated changes have been made to PA-26-00588. These changes are made to further clarify the intent and applicability of existing conditions and do not impact the BAT determination made for this facility.

four million compared to the reference risk level of one in a million. Annual average concentrations of formaldehyde, $2.2 \mu\text{g}/\text{m}^3$ and $1.6 \mu\text{g}/\text{m}^3$ at the property line and nearest residence, respectively, are below the chronic non-cancer reference concentration of $9.8 \mu\text{g}/\text{m}^3$.

The Department has also received screen modeling data in the recent past for a larger facility with a PTE for formaldehyde of 56.6 tons per year, greater than Shamrock's PTE of 7.68 tons per year. Results of the larger facility's screening model found cancer risk at the nearest neighbor's property line to be less than one in thirty-six million, and the annual average formaldehyde concentration at the nearest neighbor's property line to be approximately $5.0 \mu\text{g}/\text{m}^3$. The nearest neighbor of the previously modeled facility is approximately 37% farther than the distance from Shamrock to its nearest neighbor. Results of the modeling at the larger facility may also be used as an indicator that this natural minor facility would not exceed the referenced health risk thresholds.

Comment #6: There is no requirement in this permit for alarms alerting nearby residents of dangerous air quality conditions.

A compressor station is a large piece of engineering. There is no engineering project that has ever been designed in the history of human beings that is 100% immune from failure. In the worst case of equipment failure, nearby residents may be exposed to emergency levels of toxic substances. The permit should require some form of loud audible alarm to warn nearby residents of such an emergency, and should require the Owner/Operator to inform nearby residents about exactly what the alarm means and what precautions they should take should it sound. This same operator, Laurel Mountain Midstream, operates the Springhill #2 Compressor Station (PA DEP Site ID 720794) 12.6 miles from the Shamrock Compressor Station. Residents living next to the Springhill #2 Compressor Station report that a loud siren sounds frequently. Nearby residents have not been properly informed about what exactly it means and what they are supposed to do when it goes off. They have only been informally told that it indicates a high-pressure situation to which the compressor station operator has a limited time to respond. This experience should not be repeated at Shamrock.

Response #6: LMM has responded in writing to DEP's inquiry as to the presence and purpose of any audible alarm or siren that may be in use at any of LMM's facilities including Shamrock as proposed. Their response states, "LMM does not employ loud audible alarms at any of our unmanned stations. LMM has a call out system that alerts our operators when equipment goes down, etc. such that immediate action can be taken in the unlikely event of an emergency." They also confirm directly in their response that there are no sirens/audible alarms at Springhill #2 Compressor Station. LMM has been working and complying with DEP in an effort to address concerns of residents near Springhill #2 Compressor Station.

Formaldehyde emissions represent the largest amount of air toxic pollutants expected from Shamrock. Formaldehyde emissions are the result of combustion in the compressor engines and turbine. In the event of a failure and shutdown of the sources, combustion would cease, resulting in no formaldehyde emissions. Consequently, air toxics emissions would be expected to decrease from the facility at such a time.