

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

FINAL

Conditional Major / Synthetic Minor, Construction / Operating

Permit: F-11-031

Buffalo Creek Energy, LLC.

Tram/Pikeville, KY 41603/41501

June 27, 2011

Andrew True, Reviewer

SOURCE ID: 21-195-00287

AGENCY INTEREST: 111332

ACTIVITY: APE20110001

SOURCE DESCRIPTION:

On April 21, 2011, the source applied to the Division for the construction/operation of a Petroleum and Coal Products Manufacturing facility adjacent to KY-460 near Tram/Pikeville, Kentucky 41603/41501. The facility will produce gasoline and liquefied petroleum gas (LPG) from coal as well as elemental sulfur. The facility will utilize multiple processes. Coal will be used as a raw material fed to a gasification process to produce syngas. The syngas will then undergo a cleaning process where impurities (major impurities are sulfur and mercury), will be removed. The cleaned syngas will then be modified to produce methanol. The methanol will then be fed to a methanol to gasoline (MTG) process to produce gasoline.

Some of the facility's processes will produce steam which will be used to provide process heat as needed, feed steam driven sections of the process, or will be converted into electrical power as needed to drive electrical systems. A cooling tower will allow process water to be cooled and reentered into the process. Electric power produced by the process steam will be utilized at the facility and additional needs for electric will be supplied by utility connections. There will be no sales of electric power.

The maximum coal input will be 346 tons per hour (3,030,960 tons per year) into the systems and produce 18,000 barrels (42 gallons/barrel) of gasoline per day and 6,570,000 barrels per year. Raw materials for the plant will be trucked into the site. Product gasoline and LPG will be removed from the site via the preferred method of loading to railcar and some allowance is made for trucking for the delivery to markets.

PUBLIC AND U.S. EPA REVIEW:

On May 20, 2011, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in The Pikeville Appalachian News Express in Pikeville, KY and in the Prestonsburg Floyd County Times in Prestonsburg, Kentucky. In addition, notification of the issuance of the draft permit was sent to the United States Environmental Protection Agency (U.S. EPA) on May 17, 2011 via e-mail. The public comment period expired 30 days from the date of publication.

Written comments were received from David A. Gooch, President of Coal Operators & Associates, Inc on June 14, 2011; Paul E. Patton, President of Pikeville College and Governor of Kentucky (1995-2003) on June 20, 2011; and James N. Saul on behalf of Sierra Club on June 20, 2011.

The Division also held a public hearing in the Chrisman Auditorium of the Armington Learning Center of Pikeville College, 228 Kentucky Avenue, Pikeville KY 41501 at 6:00 pm on Monday June 20, 2011. The following attendees spoke at the public hearing to pledge support of the permit and project: Brad Hall, President of Southeast Kentucky Chamber of Commerce; Steve Burton of Tristate Building Trade; Lynn Parrish, President of Marwood Land Company; Bob Finch, Director of Missions for the Pike Association of Southern Baptists; Philip Elswick, Summit Engineering; Denise Thomas, Big Sandy Area Development District; State Representative W. Keith Hall; Dennis Rohrer, Crossrock Drilling; Barry W. Kiser; and Hilman Dotson, Pike County Magistrate. Additionally, Donald Newell spoke on behalf of the Department for Energy Development and Independence. No written comments were submitted at the public hearing and no adverse comments were made during the public hearing.

Attachment B lists the comments received, the Division's response to each comment. No changes were made to the permit as a result of the comments received; and, in no case were any emissions standards, or any monitoring, recordkeeping or reporting requirements relaxed.