

Commonwealth of Kentucky
Division for Air Quality
COMMENTS AND RESPONSE
ON THE DRAFT PERMIT

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, 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 19, 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.

The written comments received by the Division during the public comment period are summarized below (please see attachments for copies of comments as submitted). The Division's responses to those comments are also included. No changes were made to the permit as a result of the comments received.

Comments on Chisolm Energy LLC. Draft Conditional Major/ Synthetic Minor Air Quality Permit submitted by David A. Gooch, President of Coal Operators & Associates, Inc.

“On behalf of our nearly 200 member companies, their management and employees I urge you to approve both permits as expeditiously as possible.”

Division’s response: The Division acknowledges this comment.

Comments on Chisolm Energy LLC. Draft Conditional Major/ Synthetic Minor Air Quality Permit submitted by Paul E. Patton, President of Pikeville College and Governor of Kentucky (1995-2003) on June 20, 2011.

“I write to support the above referenced applications. This project will improve the economy of Eastern Kentucky and create jobs for our people.”

Division’s response: The Division acknowledges this comment.

Comments on Chisolm Energy LLC. Draft Conditional Major/ Synthetic Minor Air Quality Permit submitted by James N. Saul on behalf of Sierra Club.

Comment #1:

At the outset Sierra Club is concerned that KDAQ appears to have greatly accelerated the permit development process in an attempt to avoid permitting requirements under the Clean Air Act’s Prevention of Significant Deterioration (“PSD”) program for the Facility’s greenhouse gas (“GHG”) emissions...That KDAQ has given the permit application an unusually short review period is beyond dispute; Buffalo Creek’s application was only submitted on April 21, 2011, was deemed complete on May 12, 2011, and the Draft Permit released for public notice and comment on May 24. See Permit Application Summary at 2; Draft Permit at 1.

Division’s response:

The Division acknowledges the comment. To clarify, the permit application was deemed complete on May 16, 2011, and the Draft Permit was made available for public inspection on May 20, 2011.

For air quality permits issued under 401 KAR 52:030, once an application is deemed complete, the Division issues a draft permit within sixty (60) days and solicits comments pursuant to 401 KAR 52:100. Also in accordance with 401 KAR 52:030, Section 26, “If no substantial changes are made in the permit as a result of comments received, either from the public or the U.S. EPA, the cabinet shall issue a final permit within sixty (60) days after the close of the public comment period.”

Comment #2:

The Facility has estimated its annual emissions of GHG to be more than 3.9M tpy CO_{2e}. These emissions put the Facility well over the major source threshold for PSD purposes, triggering the requirement to obtain a PSD permit and comply with BACT limits...Kentucky has adopted, and EPA has approved into Kentucky’s State Implementation Plan (“SIP”), a definition of “subject to regulation” that incorporates by reference the definition adopted by EPA in its Tailoring Rule. See 401 KAR 51:001(231); 40 C.F.R. 51.166(b)(48). Under the SIP, therefore, beginning

in just ten days, on July 1, 2011, new sources that emit, or have the potential to emit, at least 100,000 tons per year (“tpy”) of carbon dioxide or its equivalent (CO₂e) will become subject to the Act’s PSD permitting requirements regardless of whether they are also considered major sources of non-GHG regulated pollutants. Id.; see also 75 Fed. Reg. at 68,278 (Nov. 5, 2010).

Division’s response:

The Division acknowledges this comment. As explained in the March 2011 EPA document *PSD and Title V Permitting Guidance for Greenhouse Gases* at A-1: “If a minor source construction permit is issued to a source before July 1, 2011, and that permit does not contain synthetic minor limitations on GHG emissions, and the source has a PTE of GHG emissions that would trigger PSD on or after July 1, 2011, then the source must either (1) begin actual construction before July 1, 2011, or (2) seek a permit revision to include a minor source limit for the GHG emissions. If neither (1) nor (2) occur, the source must obtain a PSD permit for GHGs.” If the permittee fails to begin actual construction by July 1, 2011, the permittee shall obtain a PSD permit for GHGs or seek a permit revision to include a synthetic minor source limit for GHG emissions.

Comment #3:

*Given the inadequacies in the draft permit, KDAQ will not be able to revise the permit, adequately respond to public comments, and issue a final permit prior to the July 1 compliance deadline for GHG PSD permitting under the Tailoring Rule and Kentucky’s SIP. Because the permit will not become final by that date, KDAQ must require the Facility to apply for a major source PSD permit to include BACT limits for CO₂. See, e.g., 63 Fed. Reg. 17,004, at 17,021 (April 2, 2010) (explaining that “permitting and licensing decisions of regulatory agencies must reflect the law in effect at the time the agency makes a final determination on a pending application.”) (citing *Ziffrin v. United States*, 318 U.S. 73, 78 (1943); *State of Alabama v. EPA*, 557 F.2d 1101, 1110 (5th Cir. 1977); *In re: Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490,614-616 (EAB 2006); *In re Phelps Dodge Corp.*, 10 E.A.D. 460,478 n.10 (EAB 2002)).*

Division’s response:

The Division acknowledges the comment. Without citing specific examples of “inadequacies”, the Division is unable to address the concern of “inadequacies” in the permit. Consistent with 401 KAR 52:030, Section 26, “If no substantial changes are made in the permit as a result of comments received, either from the public or the U.S. EPA, the cabinet shall issue a final permit within sixty (60) days after the close of the public comment period.”

Comment #4:

The Facility must demonstrate to KDAQ it will not interfere with compliance with NAAQS.

All sources, including synthetic minor sources, are required to model their emissions for compliance with NAAQS. Compliance with NAAQS is an “applicable requirement” under 401 KAR 52:030, Section 3(3)(a), and permit applicants must affirmatively demonstrate that they will not interfere with the maintenance of NAAQS. Moreover, KDAQ has an obligation under the SIP to prohibit the construction of a facility that will interfere with maintenance of NAAQS. See, e.g., 40 C.F.R. § 51.160(b)(2)

Division's response:

The Division does not concur. The commenter refers to 401 KAR 52:030, Federally-enforceable Permits for **Nonmajor Sources**. To clarify: 401 KAR 52:030, Section 3(3)(a) states:

“(3) For sources that construct, reconstruct, or modify shall demonstrate compliance pursuant to 401 KAR 50:055 as follows:

- (a) Constructing or reconstructing sources shall demonstrate compliance with all applicable requirements;”

This comment implies that 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD) is a requirement applicable to the source. However, the source is permitted under 401 KAR 52:030, Federally-enforceable Permits for Nonmajor Sources, and is not required to submit modeling to demonstrate compliance with the NAAQS.

Comment #5:

There is no indication in the Statement of Basis that the applicant modeled its emissions for compliance with NAAQS. KDAQ cannot issue the permit until such modeling occurs. If modeling indicates that emissions from the facility will interfere with compliance with NAAQS, KDAQ must not issue the permit or must include additional permit limitations sufficient to ensure compliance with NAAQS.

Division's response:

The Division acknowledges the comment. The applicant is not required to model the project emissions pursuant to 401 KAR 51:017. Please refer to the response to Comment #4.

Comment #6:

The draft permit is based on a flawed determination of the Facility's potential to emit regulated NSR pollutants and includes limitations on the Facility's potential to emit that are not legally and practically enforceable.

The requirement to obtain permits under both the PSD and Title V programs of the Clean Air Act and Kentucky's SIP are based upon the calculation of a source's potential to emit (“PTE”) certain pollutants. See 401 KAR 52:020 (Title V permits); 401 KAR 51:017 (PSD requirements). KDAQ must calculate each source's PTE of various pollutants of concern, including but not limited to criteria pollutants and hazardous air pollutants (“HAPs”).

If a source's PTE exceeds the major source thresholds under the PSD program, then stringent permitting requirements apply, including the obligation to meet emissions limitations based upon the best available control technology (“BACT”) for regulated NSR pollutants. 401 KAR 51:017, Section 8.

KDAQ must calculate the Facility's PTE for the project by adding up maximum potential emissions resulting from all emission units at the facility. The emission rates determined through these calculations also are used in the modeling demonstration to determine air quality impacts for NAAQS, PSD increment and Class I purposes. Under the Clean Air Act, the calculations underlying the draft permit, PTE calculations must reflect the worst case emissions scenario and be enforceable from a practical perspective. The requirement that PTE be both worst case and enforceable is reflected in Kentucky law.

Division’s response:

The Division acknowledges the comment. During the application review process, the Division reviewed PTE Emission calculations submitted by the source and determined that the source’s PTE for each regulated NSR criteria pollutant was below the major source thresholds. As stated in the Statement of Basis on page 7, “physical and/or operational limitations on the capacity of the source to emit PM₁₀/PM_{2.5}, NO_x, SO₂, CO, VOC, COS, CH₃OH, and HAPS that are enforceable as a practical matter are contained in Section B of the permit.” Further, the source’s potential to emit is below the source wide limits contained in Section D of the permit, to preclude the applicability of 401 KAR 52:020, Title V permits, and 401 KAR 51:017, Prevention of significant deterioration of air quality. These limits, specified in Section D of the permit, are set below the major source thresholds for each pollutant. The following table provides the PTE for pollutants from the proposed project:

Pollutant	(PTE) Potential to Emit (TPY)	Source-wide Limit (TPY)	Major Source Threshold (TPY)
PM ₁₀	55.27	90	100
PM _{2.5}	49.62	90	100
NO _x	48.73	90	100
SO ₂	92.07	94	100
CO	66.08	90	100
VOC	51.50	90	100
COS	0.30	9.0	10
CH ₃ OH	2.97	9.0	10
Single HAPS (methanol) ¹	2.97	9.0	10
Combined HAPS	3.71	22.5	25

¹ Methanol is used in this table because it is the individual HAP with the highest PTE.

Comment #7:

The CAA and Kentucky SIP plainly require that the PTE calculation reflect the maximum capacity to emit a pollutant. Any purported limits on a source’s PTE must be explicitly stated in the permit as a physical or operational limit - i.e., a specific limit on fuel, hours of operation, or pollution control equipment operating parameters - that is practicably enforceable. Broad, sweeping narrative limitations on a facility’s overall emissions are not enforceable as a practical matter and cannot be used to limit PTE. United States v. Louisiana Pacific Corp., 682 F. Supp. 1122 (D. Colo. 1987) (“While restrictions on hours of operation and on the amount of materials combusted or produced are properly included [in the PTE calculation,] blanket restrictions on actual emissions are not”); Weiler v. Chatham Forest Products, 370 F.3d 339,241 (2d Cir. 2004). (“In short, then, a proposed facility that is physically capable of emitting major levels of the relevant pollutants is to be considered a major emitting facility under the Act unless there are legally and practicably enforceable mechanisms in place to make certain that the emissions remain below the relevant levels.”) This has been reaffirmed by U.S. EPA on numerous occasions.³ Thus, to be legally enforceable and enforceable as a practical matter, each limitation on a source’s PTE must: (1) provide a clear explanation of how the actual limitation or requirement applies to the facility; and (2) make it possible for KDAQ, EPA, and citizens to determine whether the facility is complying with the condition. See Sierra Club v. Public Serv. Co., 894 F. Supp. 1455, 1460 (D. Colo. 1995).

Under the Kentucky SIP, relevant case law, and EPA guidance, the only limits that render a design limitation on emissions enforceable for purposes of PTE are specific restrictions on operation and design set forth in the permit, adherence to which can be verified by authorities. In the draft permit, KDAQ has failed to meet these standards of enforceability and the permit limitations do not adequately limit the Facility’s PTE to achieve synthetic minor source status.

³See, e.g., Terrell Hunt, Associate Enforcement Counsel, U.S. EPA Air Enforcement Division, and John Seitz, Director, U.S. EPA Stationary Source Compliance Division, *Guidance on Limiting Potential to Emit in New Source Permitting* (June 13, 1989) (“EPA PTE Guidance”), available at http://www.epa.gov/ttn/atw/pte/june13_89.pdf; see also United States EPA, *Order Responding to Petitioners’ Request That the Administrator Object to Issuance of state Operating Permit, In re BP Products North America, Inc. Whiting Business Unit* (October 16, 2009), available at http://www.epa.gov/region07/air/title5/petitiondb/petitions/bpwhiting_response2008.pdf.

Division’s response:

The Division acknowledges the comment. As mentioned previously, physical or operational limitations that restrict the PTE (the maximum capacity of a stationary source to emit a pollutant under its physical and operational design) are contained in Section B of the permit. For further clarification, the following table includes operating limitations that are contained in the permit:

Operating Limitations:

Emission Unit or Emission Point ID	Operating limit	Pollutant(s) limited
(TPC1-12, TPA1-5, TPFC1-2), CR7	Install and Operate with specified enclosures	PM/PM ₁₀ /PM _{2.5} , Opacity
CR1	Install and Operate with specified Baghouse	PM/PM ₁₀ /PM _{2.5} , Opacity
CS	Coal Stockpiles enclosed in building(s) vented to Baghouse(s)	PM/PM ₁₀ /PM _{2.5} , Opacity
PR	Watering Trucks/Wet Dust Suppression consistent with good air pollution control practices for minimizing	PM/PM ₁₀ /PM _{2.5} , Opacity

	emissions	
FH1-10	Install and operate vent filter	PM/PM ₁₀ /PM _{2.5} , Opacity
Transfer Points and Conveyors (TPC1-12)	3,030,960 tons/year per transfer point/conveyor	PM/PM ₁₀ /PM _{2.5}
CR1	346 tons/hour (tph)	PM/PM ₁₀ /PM _{2.5}
TPA1-5	604,440 tons per year each transfer point/conveyor	PM/PM ₁₀ /PM _{2.5}
TPFC1 & TPFC2	61,320 tons/year each	PM/PM ₁₀ /PM _{2.5} PM/PM ₁₀ /PM _{2.5}
LS	Limestone Stockpiles enclosed in building(s) vented to Baghouse(s)	PM/PM ₁₀ /PM _{2.5}
Material Handling, Storage Sizing, & Preparation (all units subject to 401 KAR 63:010)	Reasonable precautions shall be taken to prevent particulate matter from becoming airborne	PM/PM ₁₀ /PM _{2.5} , Opacity
TPL 1-5	166,440 tons/year each (feed rate to plant), 100 tph bin filling rate	PM/PM ₁₀ /PM _{2.5} , Opacity
CR7	166,440 tons/year each (feed rate to plant) 100 tph bin filling rate	PM/PM ₁₀ /PM _{2.5} , Opacity
LS	0.2 mmscf/hr vented through baghouse	PM/PM ₁₀ /PM _{2.5} , Opacity
A1/1 – A1/5	3,030,960 tons per year coal for gasification	NO _x , CO, VOC, PM, PM _{2.5} , PM ₁₀
A1/1 – A1/5	During Normal Plant Operation, the permittee shall not operate more than four (4) units, two (2) units per gasifier, when the full plant is operational. (One (1) unit must be in standby and NOT operating when the full plant is operational.)	NO _x , CO, VOC, PM, PM _{2.5} , PM ₁₀
A1/1 – A1/5	During cold startup, the permittee shall use only one unit with natural gas when	NO _x , CO, VOC, PM, PM _{2.5} , PM ₁₀

	<p>hydrogen is not available for fuel and the remaining units shall be started on hydrogen. The duration of cold startups per year shall be limited to 40 (forty) hours.</p> <p>Any one (1) unit may be used for coal startup.</p>	
A2/1	<p>15,570 tons per year coal for gasification and 173 tons/hr.</p> <p>31.5 million standard cubic feet (mmscf) gas discharge per /year</p> <p>90 hours of startup/year</p>	<p>SO₂, CO, VOC, PM, PM_{2.5}, PM₁₀</p>
A2/2	<p>15,570 tons per year coal for gasification and 173 tons/hr.</p> <p>31.5 million standard cubic feet (mmscf) gas discharge per /year</p> <p>90 hours of startup/year</p>	<p>SO₂, CO, VOC, PM, PM_{2.5}, PM₁₀</p>
B1/1	<p>1,515,480 tons per year coal for gasification and 173 tons/hr</p> <p>7008 mmscf discharge from lockhopper/year and an additional 0.57 mmscf/hr allowed during 30 feedstock changes per year</p>	<p>SO₂, CO, VOC, PM, PM_{2.5}, PM₁₀</p>
B1/2	<p>1,515,480 tons per year coal for gasification and 173 tons/hr</p> <p>7008 mmscf discharge from lockhopper/year and an additional 0.57 mmscf/hr allowed during 30 feedstock changes per year</p>	<p>SO₂, CO, VOC, PM, PM_{2.5}, PM₁₀</p>
Gasification and Cleanup Units	<p>The permittee shall use PRB-coal or other low sulfur coal with a maximum sulfur content of 0.5% during startup.</p>	<p>SO₂</p>
	<p>When reasonably possible,</p>	<p>SO₂</p>

Gasification and Cleanup Units	low sulfur coal shall be re-introduced for shutdowns.	
C1	Install and operate CO ₂ Stripping and/or Catalytic Purification unit	CO, H ₂ S and VOC
C1	Regeneration off-gas rate from the MTG plant (regeneration of catalyst) shall not exceed 356.3 MMscf per year.	CO, SO ₂
C1	The mass flow rate of off-gas from the AGR system shall not exceed 3,058,660 tons per year.	CO, SO ₂
C1	8,000 hours per year of operation	CO, SO ₂
C2	280 metric tons of gas flared per year	NO _x , SO ₂ , CO, VOC, HAPS
E1 (SURGH) E2 (SURH) E3 (RCH)	Combustion of syngas fuel only, except for 40 hours per year when the MTG tailgas (secondary fuel) is utilized (exception is for E3 only).	NO _x , SO ₂ , CO, VOC, PM, PM _{2.5} , PM ₁₀
E5	31,120 pounds per year flared	NO _x , CO, VOC
FL	Gas production sent to the flare shall be limited to 100,000 m ³ n/event (start-up + shutdown) per gasifier.	NO _x , SO ₂ , CO, VOC, PM, PM _{2.5} , PM ₁₀
FL	Gas production sent to the flare shall be limited to 6,000,000 m ³ n/year (start-up + shutdown) from the gasifiers.	NO _x , SO ₂ , CO, VOC, PM, PM _{2.5} , PM ₁₀
FL	Comply with 40 CFR 60.18	NO _x , SO ₂ , CO, VOC, PM, PM _{2.5} , PM ₁₀
FL	Flare shall be equipped with a wind deflector designed to stabilize the flare flame, positively influencing the flame and efficiency of combustion and pollution control efficiency of regulated air pollutants.	NO _x , SO ₂ , CO, VOC, PM, PM _{2.5} , PM ₁₀
FL	The permittee shall use, whenever the flare is in operation, natural gas fuel	NO _x , SO ₂ , CO, VOC, PM, PM _{2.5} , PM ₁₀
CT	Maintain the total dissolved solids (TDS) concentration in the circulation cooling water at or below 5,000 ppm.	PM, PM _{2.5} , PM ₁₀

CT	The cooling tower shall not be operated with chromium-based water treatment chemicals	To preclude applicability of 401 CFR 63 Subpart Q
CT	Reasonable precautions to prevent particulate matter from becoming airborne.	PM, PM _{2.5} , PM ₁₀
TK1, TK2, TK3, TK6	Fixed roof in combination with an internal floating roof meeting	VOC, HAPs
TK1, TK2, TK3	Most Stringent between: 40 CFR 60 Subpart Kb or 40 CFR 63 Subpart R	VOC, HAPs
SVL	Maximum sulfur vehicle loading shall not exceed 51.6 million pounds (lb) per year.	H ₂ S
TK7	Degassing and/or sweep air from the sulfur storage tank shall be incinerated in the SRU furnace or vented to the flare.	H ₂ S
SVL	The sulfur loading rack shall be equipped with a vapor recovery system and the unit shall be vented to the flare.	H ₂ S
LPGL	40 CFR 60 Subpart XX	VOC
LR1 and LR2	40 CFR 60 Subpart XX and 40 CFR 63 Subpart R restrictions	VOC
F(SUSB)	Combust natural gas or LPG only	CO, NO _x , SO ₂ , and PM/PM ₁₀ /PM _{2.5}
F(SUSB)	Maximum operation at full capacity (81.84 mmBtu/hr) shall be limited to 384 hours per year based on a twelve (12) month rolling total.	CO, NO _x , SO ₂ , and PM/PM ₁₀ /PM _{2.5} , VOC
FUGL, MFUG, GFUG	Implement a Leak Detection and Repair (LDAR program)	VOC/HAPs
FUGL, MFUG, GFUG	All valves, compressors, open ended lines, and sampling connections for which a control efficiency of 99% has been applied shall have the following modifications/design: (1) Valves must be designed to be sealless; (2) Compressors shall have	VOC/HAPs

	<p>dual mechanical seal with barrier fluid maintained at a higher pressure than the compressed gas;</p> <p>(3) Open ended lines must have a properly installed blind, cap, plug, or second valve on the open end;</p> <p>(4) Sampling connections, a closed-loop sampling system must be used.</p> <p>(5) Pumps must have a sealless design or dual mechanical seal with barrier fluid maintained at a higher pressure than the pumped fluid.</p>	
<p>FUGL, MFUG, GFUG</p>	<p>All connectors for which a control efficiency of 100% has been applied shall be properly welded to eliminate emissions.</p> <p>All compressors for which a control efficiency of 90% has been applied shall utilize a closed vent system routed to a control device.</p>	<p>VOC/HAPs</p>

The operating limitations, emission limitations, monitoring, recordkeeping, testing and reporting requirements contained in the permit are more than adequate and ensure that the source is in compliance with all applicable requirements and emission limitations.

Comment #8:

The source-wide emissions limitations are not enforceable as a practical matter and cannot limit the Facility's PTE.

KDAQ attempts to use broadly worded and unenforceable source-wide emissions limitations to limit the Facility's PTE below major source permitting thresholds. KDAQ states:

To preclude the applicability of 401 KAR 52:020, Title V permits, and 401 KAR 51:017, Prevention of significant deterioration of air quality, the source wide emissions shall not equal or exceed the following limits on a consecutive twelve (12)-month basis:

- (1) PM₁₀/PM_{2.5} emission of 90 tons per year;*
- (2) NO_x emission of 90 tons per year;*
- (3) SO₂ emission of 94 tons per year;*
- (4) CO emission of 90 tons per year;*
- (5) VOC emission of 90 tons per year;*
- (6) COS emissions of 9.0 tons per year;*
- (7) CH₃OH emissions of 9.0 tons per year;*

- (8) *Single HAPS of 9.0 tons per year; and*
- (9) *Combined HAP emission of 22.5 tons per year.*

Draft Permit at 116, Section D.3.

Such source-wide annual emissions limitations are not practically enforceable and cannot be relied upon to reduce the facility's PTE. See EPA PTE Guidance at 18-19 (noting that annual emissions limitations without adequate operational restrictions, such as restrictions on hours of operation or capacity utilization, are not practically enforceable.) The Facility cannot rely on the annual emissions limitations as a means to avoid PSD permitting.

Moreover, even though use of a 12-month rolling total may be practically enforceable after the first year, it will impossible during the first year of operations to determine if the Facility is in compliance with the limitations. A limitation based on a shorter period of time must be used, See EPA PTE Guidance at 9 (explaining that time periods should be as short as feasible).

Division's response:

The Division acknowledges this comment. The source-wide limits in Section D of the permit are not applied as "blanket limits" as described in the June 13, 1989 EPA Memorandum: Guidance on Limiting Potential to Emit in New Source Permitting. Please refer to the response to Comment #7.

The Division notes that the page relied upon by the commenter (page 9 as cited in the comment) of the EPA Guidance states "EPA recognizes that in some rare situations, it is not reasonable to hold a source to a one month limit. In these cases, a limit spanning a longer time is appropriate if it is a rolling limit. However, the limit should not exceed an annual limit rolled on a monthly basis." The source-wide emission limits specified in Section D of the permit are in fact annual limits based on a 12 month rolling total. This is consistent with what EPA has described in the above mentioned guidance as "appropriate".

Comment #9:

The operational limitation for Emissions Unit C1 is not enforceable as a practical matter and cannot be used to limit the Facility's PTE.

The draft permit includes an operational imitation applicable to Emissions Unit C1 that is intended by KDAQ to preclude the PSD and Title V permitting requirements under the Kentucky SIP. The limitation states: "To preclude applicability of 401 KAR 52:020 and 401 KAR 51:017, the permittee shall limit the operation of Emission Unit C1 to 8,000 hours per year." Draft Permit at 41.

This limitation is not enforceable as a practical matter because it applies over a full year, and therefore it will be impossible for KDAQ, EPA, or citizens to verify compliance in a timely manner. EPA has stated that for limitations to be enforceable as a practical matter, "they time over which they extend should be as short term as possible and should generally not exceed one month." EPA PTE Guidance at 9. The operational limitation included for Emissions Unit C1 must be shortened so that it is practically enforceable to validly limit the Facility's PTE.

Division's response:

The Division does not concur. For clarification, Operating Limitation d. at 41 of permit F-11-030 states "To preclude applicability of 401 KAR 52:020 and 401 KAR 51:017, the permittee shall limit the operation of Emission Unit C1 to 8,000 hours per year." The Compliance Demonstration Method for this limit States "Refer to Specific Monitoring and Recordkeeping Requirements."

Specific Recordkeeping Requirement e. states:

To preclude applicability of 401 KAR 52:020 and 401 KAR 51:017, the permittee shall maintain the following records on site with totals calculated on a monthly basis and a twelve (12) month rolling total:

- (1) Emissions of SO₂, VOC, H₂S, and CO with data from performance tests, monitoring devices or by calculations using emission factors, fuel usage, process rates or other applicable data along with supporting calculations;
- (2) Hours of operation;
- (3) Fuel usage and fuel specifications from fuel supplier;
- (4) Mass flow rate of off-gas from the AGR system; and
- (5) The regeneration off-gas rate from the MTG plant.

The Division notes that compliance with the operating limitation of 8,000 hours per year for Emission Unit C1 is demonstrated by records of hours of operation calculated on a monthly basis and a twelve month rolling total. As previously noted by the Division, the page relied upon by the commenter (page 9 as cited in the comment) of the EPA Guidance states "EPA recognizes that in some rare situations, it is not reasonable to hold a source to a one month limit. In these cases, a limit spanning a longer time is appropriate if it is a rolling limit. However, the limit should not exceed an annual limit rolled on a monthly basis." The Operating Limit of 8,000 hours per year specified on page 41 of the permit is consistent with what EPA has described in the above mentioned guidance as "appropriate". The Division notes that in addition to the operating limitation cited by the commenter, the other permit terms and conditions (Specific Monitoring Requirements, Testing Requirements, and Recordkeeping Requirements) collectively limit the emissions from Emission Unit C1 in a way that is enforceable as a practical matter and ensure that the source is in compliance with all applicable requirements and emission limitations.

Comment #10:

Sierra Club requests that KDAQ deny Chisolm Energy's permit application and require it to apply for and obtain a PSD permit including BACT limits for GHGs. KDAQ must also ensure (through modeling) that the Facility will not interfere with the maintenance of NAAQS, and must only issue a final permit that includes limits for other regulated pollutants that are legally and practically enforceable.

Division's response:

The Division does not concur. Chisolm Energy is not a major source subject to PSD for this permit review (Please refer to responses to Comments#1-9).