



west virginia department of environmental protection

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MEMORANDUM

To: Beverly McKeone, P.E. – New Source Review Program Manager

From: Ed Andrews, Engineer 

Date: June 23, 2015

Subject: Response to Comments of Permit R13-3227 (Cone Midstream Partners – Camden Station - 041-00068)

On June 22, 2015, the DAQ received comments on Permit R13-3227 from Mr. David Morris, Air Quality Manager for Consol Energy. Most of the comments that Mr. Morris made were typographic errors or miss numbering of reference conditions expect for monitoring the temperature of the VDU. Condition 4.2.1. requires continuous monitoring the of the temperature of the combustion zone of the VDU. Mr. Morris noted that the proposed unit was not equipped an output to measure the actual temperature only detect the presence of a flame.

Mr. Morris proposed to measure the temperature manually twice a day. The writer believes that compliance issues could develop by measuring the shell of the device instead of the actual combustion zone. An equivalent temperature could be developed if the thermal conductivity of the material(s) used to construct the shell is known. Regardless, several conditions would have to be updated in the permit.

Cone proposed to install an ABUTEK 100 as the vapor destruction unit to control Tank TK-2205 at the Camden Station. ABUTEK 100 has been approved by the Administrator to meet the control device requirements of Subpart OOOO to Part 60 and Subpart HH to Part 63 (See Attachment A). The Administrator rate the maximum flow rate of the ABUTEK 100 at 6,000 scfh. The predicted flowrate from TK-2205 was 120 scfh, which acceptable to be control using an ABUTEK 100.

Under Subpart OOOO, an affect source that would be subject to the control device requirements would only have to monitor presence of flame and quarterly VE checks for control devices that Administrator had reviewed and determine to meet the control device requirements from the manufacturer's performance test.

The writer recommends to replacing the minimum temperature and monitoring with the following:

- 4.1.4.d.ii. The VDU unit shall be a model of unit that the control device manufacturer had demonstrated to the U.S. EPA Administrator that the VDU meets the control device performance requirements of Subpart OOOO to Part 60. The actual flowrate from TK-2205 shall not exceed the maximum flowrate as determined by the Administrator.
- 4.2.1.g. The presence of a flame in the VDU and identify any periods there was no flame present while Tank TK-2205 is in service.
- 4.2.4. For the purpose of demonstrating proper operation of the VDU, the permittee shall conduct a visible emission observation using Section 11 of Method 22 for one hour once every calendar quarter in which Tank TK-2205 is in service. If during the first 30 minutes of the observation there were no visible emission observed, the permittee may stop the observation.

If at the end of the observation and visible emission were observed for more than 2 minutes, then the permittee shall follow manufacture's repair instruction, if available or best combustion engineering practice as outline in the unit inspection and maintenance plan. To return the flare to compliant operation, the permittee shall repeat the visible emission observation. Records of such monitoring and repair activities shall be maintained in accordance with Condition 3.4.1.

The subpart does focus on ensuring that the flowrate to the control device is not exceeded. The existing requirements on Tank TK-2205 indirectly monitor the flowrate going to the flare by monitoring the liquids trucked off site. Thus, the proposed changes should be view as acceptable means of compliance with the emission standard as established in the permit. Therefore, the writer recommends these changes to be made in considering Permit R13-3227 to be approved by the Director.

Memo to Ms. McKeone on R13-3227

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ATTACHMENT A

Performance Testing for Combustion Control Devices

Manufacturers' Performance Test¹

NSPS OOOO and MACT HH/HHH Manufacturer	Model Number	Date of Performance Test Submittal	Control Device Demonstrates Performance Requirements ²	Maximum Inlet Flow Rate ³
ABUTEC	ABUTEC 20	02/12/2013	Yes	1500 scfh
ABUTEC	ABUTEC 100	02/12/2013	Yes	6000 scfh
ABUTEC	ABUTEC 200	10/30/2014		Under Review
Big Iron Oilfield Service	BNECU PI36	08/08/2014	Yes	314 scfh
Big Iron Oilfield Service	BNECU PI48	08/08/2014	Yes	725 scfh
Black Gold Rush	BGR-18	08/12/2014		Under Review
Black Gold Rush	BGR-24	08/12/2014		Under Review
Cimmaron	CEI 1-24	08/12/2014	Yes	383 scfh
Cimmaron	CEI 1-30	08/12/2014	Yes	625 scfh
Cimmaron	CEI 1-48	08/12/2014	Yes	1250 scfh
Cimmaron	CEI 1-60	08/12/2014	Yes	2400 scfh
Cimmaron	48" HV ECD	08/12/2014	Yes	4553 scfh
COMM Engineering	COMM OOOO Combustor 200	03/06/2013	Yes	3300 scfh
Edge Manufacturing	Edge XXV	10/14/2014		Under Review
Edge Manufacturing	Edge CXV	10/14/2014		Under Review
JLCC Combustion	FC 20	09/09/2014	Yes	1090 scfh
John Zink	ZTOF025X15PF	06/26/2014		Under Review
John Zink	ZTOF040X30PF	06/26/2014	Yes	4120 scfh
Kimark	KSF 1-48	12/18/2013	Yes	1250 scfh
Leed Fabrication	24" Combustor	07/22/2013		Under Review
Leed Fabrication	36" Combustor	07/22/2013		Under Review
Leed Fabrication	48" Combustor	07/22/2013		Under Review

Manufacturer	Model Number	Date of Performance Test Submittal	Control Device Demonstrates Performance Requirements	Maximum Inlet Flow Rates ³
MESSCO	Vocinerator 30"	07/30/2014		Under Review
MESSCO	Vocinerator 36"	05/29/2014		Under Review
NOV	MEVC 20	02/12/2013	Yes	1500 scfh
NOV	MEVC 100	02/12/2013	Yes	6000 scfh
Questor Technology	Q250	03/20/2015		Under Review
REM Technology	SlipStream GTS=12	02/16/2014		Under Review
Superior Fabrication Inc	SCD-36	09/19/2014		Under Review
Superior Fabrication, Inc	SCD-48	09/19/2014		Under Review
Superior Fabrication, Inc	SCD-60	09/19/2014		Under Review

¹The purpose of the table is to inform owners or operators the combustion control devices that have been manufacturer tested and for which the test results have been submitted to EPA for review. Inclusion on this list is for informational purposes only. EPA does not endorse any of these manufacturers or their products.

²"Yes" means that the manufacturer has demonstrated that the specific model of control device listed achieves the combustion control device performance requirements in NSPS subpart OOOO and NESHAP subparts HH and HHH through performance testing conducted as specified in these subparts. An owner or operator who uses a device listed above as "YES" is exempt from conducting performance tests under 40 CFR §60.5413(a)(7), §63.772(e) and/or §63.1282(d), and from submitting test results under §60.5413(e)(6), §63.775(d)(1)(ii) and/or §63.1285(d)(1)(ii), as applicable. "Yes" does not constitute an endorsement by EPA. Operation of such a device does not relieve the owner or operator of an affected facility from other compliance obligations under the rule.

³This column provides the maximum inlet flow rate determined by the manufacturer for the specified model, as required under §60.5413(d)(11)(ii), §63.772(h)(7)(ii), §63.1282(g)(7)(ii), as applicable.

[Updated 04/07/2015]