

**BEFORE THE AIR QUALITY CONTROL COMMISSION
OF THE STATE OF COLORADO**

IN THE MATTER REGARDING
PROPOSED AMENDMENTS TO REGULATION NUMBER 7

**PREHEARING STATEMENT OF
THE CITY OF COMMERCE CITY**

The City of Commerce City respectfully submits this prehearing statement for the AQCC Rulemaking regarding proposed changes to Regulation 7.

I. DISCUSSION

A. Summary of the City of Commerce City's Position

The City of Commerce City ("Commerce City") is in general agreement with the Air Pollution Control Division's proposal on pre-production and early production monitoring. These new and evolving technologies offer great promise for finding leaks and creating safer oil and gas locations. However, Commerce City shares the concerns voiced by our neighboring local governments in the "Local Government Coalition." Commerce City would like to see more specificity in the rules and a consultation role for affected local governments in approving air quality monitoring plans.

B. Oil and Gas Development within Commerce City

Over the past two years, Commerce City has engaged in numerous discussions with oil and gas operators about siting oil and gas facilities in northern Commerce City. After negotiating for many months, Commerce City entered into a Regional Operator Agreement with Extraction Oil & Gas, LLC.¹ While the Regional Operator Agreement did not approve any oil and gas locations or permit any oil and gas development, it identified locations for seven wells pads, set minimum conditions of approval, and required the operator to invest in pipeline infrastructure and \$3 million in air quality monitoring. The operator has submitted several oil and gas applications with Commerce City which are currently in review. See map - Exhibit 1.

During the public comment period for the Regional Operating Agreement, the subject of air quality was the top concern identified by Commerce City residents.

¹ The entire ROA may be found here: www.c3gov.com/OilGas

Commerce City is now in the process of updating the oil and gas regulations contained within the Land Development Code. The minimum conditions of approval from the Regional Operating Agreement have been proposed as code requirements. These include the following proposed requirements:²

- the operator to prepare an air quality monitoring plan that will be approved by the City.
- The plan will describe how the Operator will conduct continuous monitoring and collect periodic canister samples (or equivalent method) during the drilling, completion and production phases of development. At Operator's cost, a third-party consultant approved by the City shall conduct baseline and ongoing air sampling and monitoring.
- Baseline sampling shall be conducted within 500 feet of a proposed facility over a 90-day period. Baseline sampling shall track levels and changes in monitored air pollutant concentrations. Baseline sampling data shall be provided as part of the Oil and Gas permit submittal.
- Continuous monitoring for hydrocarbons shall occur during the drilling and completions phase of oil and gas development. Each hydrocarbon monitor shall include a sampling device to automatically collect an air sample when the monitor levels reach a defined trigger level. Monitors shall also include meteorological monitoring capabilities. Continuous monitoring may not cease until three years have passed from the date the last well drilled on the site has entered the production phase, unless any residential use is within 1,000' of the edge of the well site. In such instance, continuous monitoring shall be required until all wells are plugged and abandoned.
- An increase in the detection of hydrocarbon greater than the ambient levels determined during baseline sampling plus the anticipated change based on Operator-provided impacts of modeled operations shall require the Operator to collect a further sample utilizing an 8-hour canister sample immediately after detection.
- In the event a canister sample is triggered, the city shall be notified within one hour after the occurrence of such event. Depending on the circumstances, expedited lab analysis may be required.

Commerce City recognizes that its regulations may be more stringent than state air quality regulations³ but would prefer more uniform state regulations and partnering with the CDPHE in implementing successful air quality monitoring plans. Commerce City has therefore incorporated these standards into the proposed state rules. (Exhibit 2).

C. Comments on Proposed Air Quality Monitoring Regulations

² Commerce City Land Development Code, Proposed Section 21-5266(12)(d)

³ C.R.S. § 25-7-128(1)

Commerce City agrees with the comments and redlines provided by the Local Government Coalition and have provided its own redlines as Exhibit 2. The regulations for air quality monitoring plans lack specificity and should allow for local government to consult in the design and approval of the plans. Commerce City also requests increased transparency of the monitoring data collected and to require notification of any impacted local governments if monitored pollution exceeds a pre-determined trigger level.

Commerce City recognizes that continuous monitoring can serve many purposes including 1) monitoring for ozone-forming pollutants such as VOCs and NOx, 2) monitoring for methane and other greenhouse gases, and 3) monitoring for benzene and other hazardous air pollutants. For any oil and gas development proposed within a city, the primary concern has got to be for the health and well-being of the residents. Therefore, monitoring for hazardous air pollutants should be a primary focus for any air quality monitoring plans for oil and gas development within a municipality.

The recent CDPHE study that was released in October of 2019 stated that modeled benzene, toluene and ethyltoluene concentrations from oil and gas operations could cause short term negative health impacts as far away as 2,000 feet from the oil and gas facility in worst case conditions.⁴ CDPHE responded to the report by issuing a press release stating,

“This study is the first of its kind because it used actual emissions data to model potential exposure and health risks,” said Environmental Programs Director John Putnam. “It is an important addition to the increasing body of knowledge about the potential health risks associated with oil and gas operations. As we learn more, we have a better roadmap for where we need additional research. However, while we pursue further research, we won’t delay enacting stricter emissions standards for chemicals that cause human health effects, ozone pollution, and climate change. This study just reinforces what we already know: we need to minimize emissions from oil and gas sources.”⁵

Commerce City views this statement as a commitment to “pursuing further research” on the human health effects of oil and gas development. Until we have clarity about the true health impacts of oil and gas development, all oil and gas development, regardless of its location, should be

⁴ Ed Carr, et al. Final Report: Human Health Risk Assessment for Oil & Gas Operations in Colorado, submitted to Colo. Dept. of Public Health and Env., October 17, 2019; Chris Holder, John Hader, Raga Avanas, Tao Hong, Ed Carr, Bill Mendez, Jessica Wignall, Graham Glen, Belle Guelden & Yihua Wei (2019) Evaluating Potential Human Health Risks from Modeled Inhalation Exposures to Volatile Organic Compounds Emitted from Oil and Gas Operations, Journal of the Air & Waste Management Association, DOI: 10.1080/10962247.2019.1680459 (*Exhibit 2*)

⁵ CDPHE Press Release, “State health department publishes oil and gas health risk study,” October 17, 2019. Available at:

monitored for the hazardous air pollutants of benzene, toluene, and ethyltoluenes that are known to be released from oil and gas facilities within Colorado.

II. CONCLUSION

Commerce City requests the AQCC to adopt the Division's Proposal with the changes identified in Exhibit 2.

III. LIST OF POTENTIAL WITNESSES

The following people may be called as witnesses. Commerce City reserves the right to call additional witnesses if they become necessary for rebuttal.

1. Domenic Martinelli, Environmental Planner, Local Government Designee. Testimony in support of the Commerce City Prehearing Statement.
2. Jason Rogers, Community Development Director. Testimony in support of the Commerce City Prehearing Statement.

IV. LIST OF EXHIBITS

Commerce City submits the following exhibits in support of this prehearing statement:

File	Description
COMMERCE+	
PHS_EX_001	Map of oil and gas development proposed for Commerce City
PHS_EX_002	Commerce City's Redline of Regulation No. 7

V. TIME REQUESTED

Commerce City requests a time allocation of 10 minutes for direct testimony, rebuttal testimony, and cross-examination of other parties' witnesses.

Dated: July 30, 2020

/s/ Domenic Martinelli

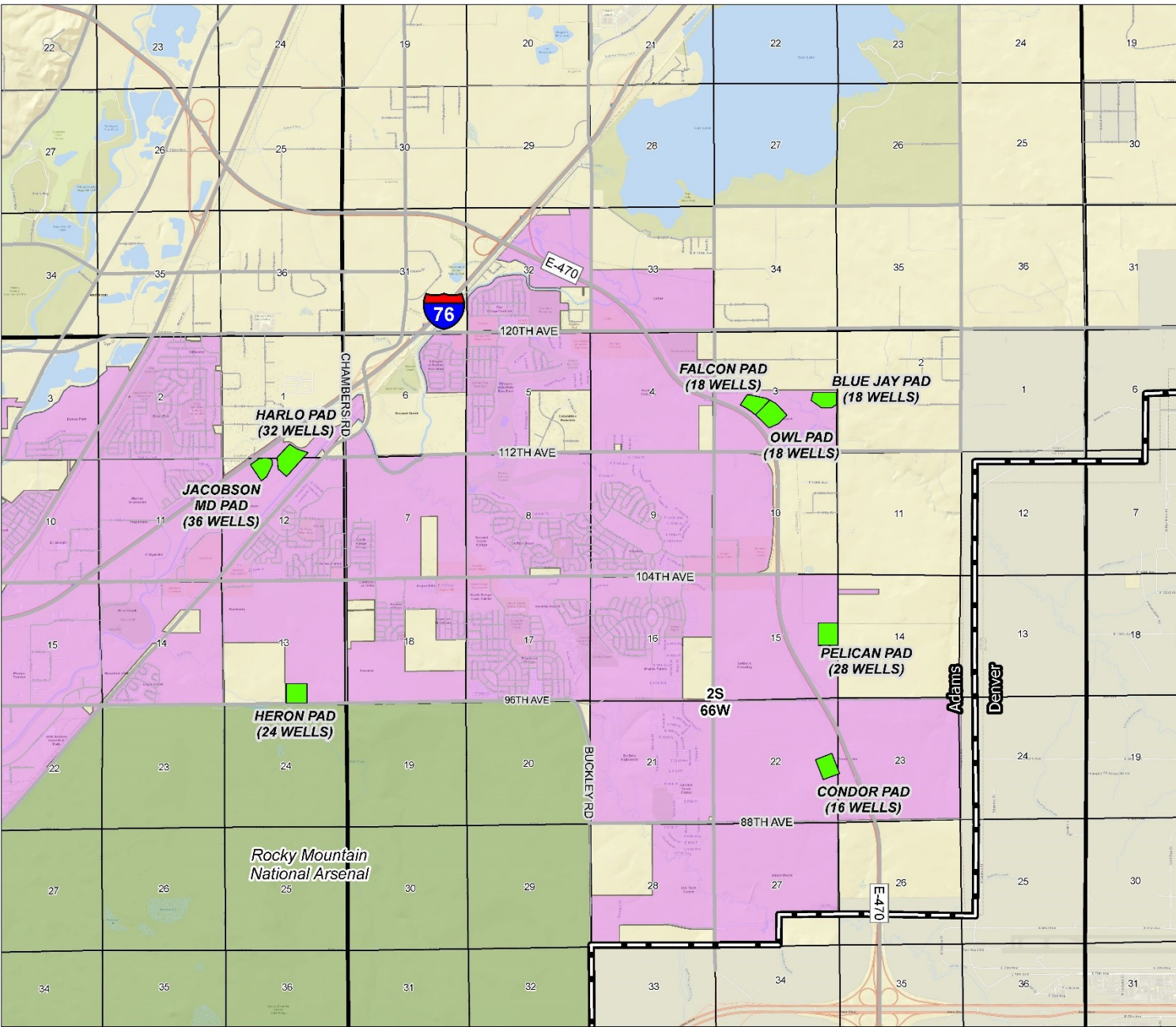
CERTIFICATE OF SERVICE

The undersigned certifies that on this 30th day of July, 2020, an electronic copy of the foregoing PREHEARING STATEMENT OF THE CITY OF COMMERCE CITY all listed exhibits on the persons listed on the Party List.

/s/ Domenic Martinelli

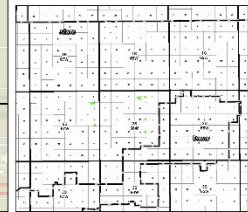
Legend

- Major Road
- Local Road
- Commerce City Boundary
- County Boundary



Adams County Development
Commerce City
XOG pads & Units
Adams County, CO

Scale: 1" = 25,400' PRJ: GCS NAD83
Date: 6/11/2018 Author: CMB



COMMERCE CITY PHS – EXHIBIT 2

ENVIRONMENT

Air Quality Control Commission

REGULATION NUMBER 7

Control of Ozone via Ozone Precursors and Control of Hydrocarbons via Oil and Gas Emissions (Emissions of Volatile Organic Compounds and Nitrogen Oxides)

5 CCR 1001-9

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

Outline of Regulation

Part A Applicability and General Provisions

- I. Applicability
- II. General Provisions

Appendix A Colorado Ozone Nonattainment or Attainment Maintenance Areas

Part B Storage, Transfer, and Disposal of Volatile Organic Compounds and Petroleum Liquids and Petroleum Processing and Refining

- I. General Requirements for Storage and Transfer of Volatile Organic Compounds
- II. Storage of Highly Volatile Organic Compounds
- III. Disposal of Volatile Organic Compounds
- IV. Storage and Transfer of Petroleum Liquid
- V. Crude Oil
- VI. Petroleum Processing and Refining
- VII. Control of Volatile Organic Compound Leaks from Vapor Collection Systems and Vapor Control Systems Located at Gasoline Terminals, Gasoline Bulk Plants, and Gasoline Dispensing Facilities

Appendix B Criteria for Control of Vapors from Gasoline Transfer to Storage Tanks

Appendix C Criteria for Control of Vapors from Gasoline Transfer at Bulk Plants

Part C Surface Coating, Solvents, Asphalt, Graphic Arts and Printing, and Pharmaceuticals

- I. Surface Coating Operations
- II. Solvent Use

- III. Use of Cutback Asphalt
- IV. Graphic Arts and Printing
- V. Pharmaceutical Synthesis

Appendix D Minimum Cooling Capacities for Refrigerated Freeboard Chillers on Vapor Degreasers

Appendix E Emission Limit Conversion Procedure

Part D Oil and Natural Gas Operations

- I. Volatile Organic Compound Emissions from Oil and Gas Operations
- II. (State Only) Statewide Controls for Oil and Gas Operations
- III. (State Only) Natural Gas-Actuated Pneumatic Controllers Associated with Oil and Gas Operations
- IV. (State Only) Control of Emissions from the Natural Gas Transmission and Storage Segment
- V. (State Only) Oil and Natural Gas Operations Emissions Inventory

~~V.~~VI. (State Only) Oil and Natural Gas Pre-Production and Early-Production Operations

Part E Combustion Equipment and Major Source RACT

- I. Control of Emissions from Engines
- II. Control of Emissions from Stationary and Portable Combustion Equipment in the 8-Hour Ozone Control Area
- III. Control of Emissions from Specific Major Sources of VOC and/or NOx in the 8-Hour Ozone Control Area
- IV. Control of Emissions from Breweries in the 8-hour Ozone Control Area

Part F Statements of Basis, Specific Statutory Authority and Purpose

Pursuant to Colorado Revised Statutes Section 24-4-103 (12.5), materials incorporated by reference are available for public inspection during normal business hours, or copies may be obtained at a reasonable cost from the Air Quality Control Commission (the Commission), 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530. The material incorporated by reference is also available through the United States Government Printing Office, online at www.govinfo.gov. Materials incorporated by reference are those editions in existence as of the date indicated and do not include any later amendments.

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Part D Oil and Natural Gas Operations

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VI.C Air quality monitoring

VI.C. Owners or operators of pre-production operations that begin on or after May 1, 2021, must develop and implement approved air quality monitoring plans monitor air quality at and

around the operations.

VI.C.1.a. Owners or operators must monitor ambient air concentrations for at least ~~three (3) days~~ ninety (90) days prior to beginning pre-production operations, through all pre-production operations, and for at least ~~six months~~ three years after commencement of operation.

VI.C.1.b. Owners or operators must submit an air quality monitoring plan to the Division for approval at least ninety (90) ~~forty-five (45)~~ days prior to beginning air quality monitoring. The Division will ~~consult~~ notify and initiate a formal consultation process with the local government(s) with jurisdiction over the area where the operations are located and any other local government unit, where applicable, within 2,000 feet of the proposed oil and gas operations contained within the air quality monitoring plan within ten (10) days of receiving the initial air monitoring plan during the approval process. The operator must ~~and~~ comply with the plan once approved. The Division will not approve an air quality monitoring plan unless it ~~the air quality monitoring plan must include~~, at a minimum, the following information:

VI.C.1.b.(i) The owner or operator name and contact information of the owner or operator representative for monitoring purposes.

VI.C.1.b.(ii) The operations to be monitored including the API number of the well(s), location of the operations including latitude and longitude coordinates, and any associated facility or equipment AIRS number(s).

VI.C.1.b.(iii) A description of the monitoring (pollutant and meteorological) equipment, including the manufacturer and model information and any manufacture specifications for the monitoring equipment or data systems.

VI.C.1.b.(iv) The monitor siting plan. ~~The monitor siting plan must include, at a minimum:~~

- (a) ~~including, but not limited to~~, the location and height of the monitoring equipment,
- (b) the distance to the pre- production and production operations,
- (c) the distance to the nearest roads and their average daily traffic,
- (d) a map that identifies Occupied Areas (as that term is defined in Regulation 7, Part D, Section II.A.15) within 2,000 feet of the operations ~~and~~
- (e) nearby obstructions to air flow to the monitor; and
- (f) ~~the location of the appropriate number of monitors to adequately record emissions along the fenceline in all directions so as to monitor all ambient air impacts.~~

VI.C.1.b.(v) A description of, at a minimum

VI.C.1.b.(v)(A) Whether the monitoring is or has been used in other applications.

VI.C.1.b.(v)(B) What air pollutant(s) and other parameters will be monitored, to include total VOCs or other indicator of hydrocarbon emissions from pre-production and early production operations.

VI.C.1.b.(v)(C) The planned schedule for pre-production and early production operations that will occur and be monitored at this location.

VI.C.1.b.(v)(D) The frequency of measurements and data logging process. Measurements shall be taken at least every minute, if not more frequently.

VI.C.1.b.(v)(E) A description of the specific monitoring technology, why it was chosen, how the number of monitors needed was determined and the limitations of the monitoring equipment including, but not limited to, the ability to identify specific emission locations, detection limits, and any restrictions on use.

VI.C.1.b.(v)(F) The data quality indicators for precision and bias of the monitoring equipment.

VI.C.1.b.(v)(G) The quality control and quality assurance procedures, including calibration intervals/frequencies, necessary to ensure proper operation of the monitoring equipment. Owners or operators may reference and attach an existing methodology.

VI.C.1.b.(v)(H) The meteorological data (e.g., wind speed, wind direction, temperature) gathering protocol.

VI.C.1.b.(v)(I) The data acquisition system including, but not limited to, data processing, recording, downloading, backup and storage, and reporting.

VI.C.1.b.(v)(J) The method for collecting speciated samples of benzene, toluene, ethyltoluene, and other chemical constituents identified by the Division when indicated necessary based on site-specific concentration thresholds.

VI.C.2 Recordkeeping and reporting

VI.C.2.a. Owners or operators must keep the following records for a minimum of three (3) years, unless otherwise specified, and make records available to the Division and the local government(s) with jurisdiction over the area and any other local government unit, where applicable, within 2,000 feet of the proposed oil and gas operations contained within the air quality monitoring plan where the pre-production activities are conducted upon request.

VI.C.2.a.(i) The air quality monitoring plan.

VI.C.2.a.(ii) Monthly reports, as provided in Section VI.C.2.b.

VI.C.2.a.(iii) For a period of 90 days after the monthly report, the underlying raw data associated with each monitor, which shall be kept in a spreadsheet or other database-type format.

VI.C.2.b. Owners or operators must submit monthly reports of monitoring conducted to the Division by the last day of the month (e.g., June 30) following the previous month of monitoring (e.g., May 1-31). These reports must contain, at a minimum, the following information:

VI.C.2.b.(i) The month and year of the monitoring period.

VI.C.2.b.(ii) A description of the monitored operations including

VI.C.2.b.(ii)(A) The phase of operation (e.g., during pre-production operations) and activities occurring during the monitored period.

VI.C.2.b.(ii)(B) API number of the well(s).

VI.C.2.b.(ii)(C) Location of the operations, including latitude and longitude coordinates.

VI.C.2.b.(ii)(D) Any associated facility or equipment AIRS number(s).

VI.C.2.b.(ii)(E) The date and time of any monitoring equipment downtime.

VI.C.2.b.(iii) For the first monthly report after beginning monitoring during pre-production operations, a summary of air quality condition results monitored prior to beginning pre-production operations (i.e., baseline conditions), including maximum concentrations, periodic averages, and standard deviation data.

VI.C.2.b.(iv) A summary of monitored air quality results, including maximum concentrations, periodic averages, and standard deviation data.

VI.C.2.b.(v) A summary of any recorded upset conditions, malfunctions and shut-in periods during the reporting period.

VI.C.2.b.(vi) A description of responsive action(s), including correlations with specific events, activities, and/or monitoring thresholds.

VI.C.2.b.(vii) The results of any speciated samples of chemical constituents identified by the Division and collected when site-specific concentrations indicate such samples are necessary.

VI.C.s.b.(viii) Meteorological data, in both 15-minute and one-hour intervals.

IV.A. Emission reduction from pre-production flowback vessels

IV.A.1. Control

IV.A.1.a. Owners or operators of a well with a commencement of operation date on or after May 1, 2021, must collect and control emissions from each flowback vessel on and after the date flowback is routed to the flowback vessel by routing emissions to and operating air pollution control equipment that achieves a hydrocarbon control efficiency of at least 95%. If a combustion device is used, it must have a design destruction efficiency of at least 98% for hydrocarbons.

VI.D.1.a.(i) Owners or operators cannot use open-top flowback vessels.

VI.D.1.a.(ii) Owners or operators must use permanent storage tanks as flowback vessels where such use is technically feasible.

VI.D.1.a.(iii) Owners or operators must use a tank measurement system to determine the quantity of liquids in the flowback vessel(s).

VI.C.1.a.(iii)(A) Thief hatches or other access points to the flowback vessel must remain closed and latched during activities to determine the quantity of liquids in the flowback vessel(s).

VI.C.1.a.(iii)(B) Opening the thief hatch or other access point if required to inspect, test, or calibrate the storage tank measurement system is not a violation of Section VI.C.1.a.(ii)(A).

VI.D.1.a.(iv) Combustion devices used during pre-production operations must be enclosed, have no visible emissions during normal operation, and be designed so that an observer, by means of visual observation from the outside of the enclosed combustion device, or by other means approved by the Division, determine whether it is operating properly.

VI.C.1.a.(iv)(A) Combustion devices must be equipped with an operational auto-igniter upon installation of the combustion device.

IV.A.2. Monitoring

IV.A.2.a. Beginning the applicable compliance date in Section VI.D.1.a., owners or operators must conduct daily visual inspections of the flowback vessel and any associated equipment.

VI.D.2.a.(i) Visual inspection of any thief hatch, pressure relief valve, or other access point to ensure that they are closed and properly seated.

VI.D.2.a.(ii) Visual inspection or monitoring of the air pollution control equipment to ensure that it is operating.

VI.D.2.a.(iii) Visual inspection of the air pollution control equipment to ensure that the valves for the piping from the flowback vessel to the air pollution control equipment are open.

VI.D.2.a.(iv) If a combustion device is used, visual inspection of the auto-igniter and valves for piping of gas to the pilot light to ensure they are functioning properly.

VI.D.2.a.(v) If a combustion device is used, inspection of the device for the presence or absence of smoke. If smoke is observed, either the equipment must be immediately shut-in to investigate the potential cause for smoke and perform repairs, as necessary, or EPA Method 22 must be conducted to determine whether visible emissions are present for a period of at least one (1) minute in fifteen (15) minutes.

IV.A.3. Recordkeeping

IV.A.3.a. The owner or operator of each flowback vessel subject to Section VI.D.1. must maintain records for a period of two (2) years and make them available to the Division upon request, including

VI.D.3.a.(i) The API number of the well and the associated facility location, including latitude and longitude coordinates.

VI.D.3.a.(ii) The date and time of the onset of flowback.

VI.D.3.a.(iii) The date and time the flowback vessels were permanently disconnected, if applicable.

VI.D.3.a.(iii) The date and duration of any period where the air pollution control equipment is not operating.

VI.D.3.a.(iv) Records of the inspections required in Section VI.D.2. including the time and date of each inspection, a description of any problems observed, a description and date of any corrective action(s) taken, and the name of the employee or third party performing corrective action(s).

VI.D.3.a.(v) Where a combustion device is used, the date and result of any EPA Method 22 test or investigation pursuant to Section VI.D.2.a.(v).