Air Quality Control Advisory Council Meeting Notes
January 31, 2014 @ 8:15 am
MDE Headquarters—Aqua Conference Room
1800 Washington Boulevard
Baltimore MD 21230

AQCAC MEMBERS PRESENT

Sania Amr – by phone
Kevin Barnaba
Lorne Garrettson
John Quinn
Lawrence Schoen
Sara Tomlinson
Ronald White – by phone

AQCAC MEMBERS ABSENT

John Kumm
Kip Keenan
Ross Salawitch
Andrea Bankoski
Sue Garonzik
Donald Moore

VISITORS

Debra Raggio – TPM for Raven Power
Dan Rider – DNR Forest Service
Jonathan Kays – UMC – Maryland Wood Energy Coalition
Kyle Haas – Maryland Energy Administration
Tom Weissinger – Raven Power
Pete Horrigan – MAPDA
David Cramer – NRG Energy
Amber DiDominic – ERM
Kristen Hughes Evans – Chesapeake Bay
Gary Allen – Sustainable Council
Tom Johnson – Eastern Shore Forest Product – by phone
Joseph Seymour – Biomass Thermal Energy Council – by phone
Paul Lewendowski – AFS Energy Systems – by phone
Joshua Worth – Wawa – by phone
Joshua Burman – Sierra Club – by phone

MDE-ARMA
George (Tad) Aburn
Diane Franks
Molly Berger
Mario Cora- by phone
Eddie DuRant
Matt Hafner
Karen Irons
Steve Lang
Ralph Hall
John Artes
Suna Sariscak
Carolyn Jones
Husain Waheed
Kathy Wehnes

This is a summary of the January 31, 2014 Air Quality Control Advisory Council Meeting and serves as a record of the Council's vote on regulatory action items. The meeting is recorded and the digital file is maintained by MDE/ARMA. This digital file is considered public information and may be reviewed in its entirety by anyone who is interested in the details of the discussions.

MEETING OPENING/OPENING REMARKS
Chairman John Quinn and Tad Aburn, Air Director at MDE, opened the meeting with introductions of members and visitors.

ACTION ON REGULATIONS

Approval of Minutes from September 9, 2013 meeting:

Motion to approve the September 9, 2013 minutes was made by Larry Schoen and seconded by Kevin Barnaba. All members voted in favor at approximately 8:40 am.

COMAR 26.11.13 Gasoline and VOC Storage and Handling

Husain Waheed presented this action, a proposal to amend existing COMAR 26.11.34 Regulation .04 & .05. Mr. Waheed explained the primary purpose of this amendment is to provide an alternative equivalent vapor recovery method for the transfer of high vapor pressure materials from cargo rail tanks to truck tank trailers.
This amendment will allow the current process to continue, which is more environmentally protective. There is currently only one affected facility. TRANSFLO Terminal Services, Inc. in Baltimore City. Also there are minor corrections to references from regulations .04 and .05.

COMAR 26.11.13.04 establishes requirements for the use of automatic disconnections for the transfer of gasoline and VOCs with a total vapor pressure greater than 1.5 psia.

Automatic disconnections are typically referred to in the industry as dry disconnects. Affected sources in Maryland do use dry disconnects on transfer equipment used for the handling of gasoline and fuel grade ethanol products (which have vapor pressures of greater than 1.5 psia). The fuel industry has adopted the use of dry disconnect fittings for loading and unloading hose applications.

Affected sources in Maryland typically only transfer one product with a vapor pressure greater than 1.5 psia at a Baltimore facility. This product is hexane, for which typically approximately 1.5 million gallons are transferred annually. This product is transferred using vapor balance, which has an estimated combined capture and control efficiency of 98.7 percent using EPA AP-42 factors. The total volatile organic compounds (VOC) emissions associated with this transfer are estimated as approximately 114 pounds. This transfer quantity equates to approximately 53 tank cars of material, and approximately 215 truckloads of material.

The affected facility has developed a custom transloading operation for hexane using: elevated platform, vapor balance, "fail-closed" configuration which turns off the pump and ceases flow should there be a leaking connection, valve, or hose and liquid pump(s) empty the hoses upon completion of the transfer operation

Lorne Garrettson asked if this process is being used at this company's other locations and what other compounds might be involved? Mr. Waheed responded that any material can be transloaded that has a vapor pressure greater than 1.5 psia using the proposed procedures. The main concern has been hexane, as standards applicable to tank trucks transloading such materials are different from those for gasoline. Alcohol, ethanol and other liquids could be trans loaded with help of the proposed procedures. Transflo handles hexane.

Sara Tomlinson asked, "What is the time frame for the 114 pounds of VOC?" and MDE replied that is the yearly VOC estimate. Mr.Waheed explained the next steps would be to bring this regulation to proposal in the Maryland Register and a public hearing would be held.

Motion to approve this action was made by Larry Schoen and seconded by Lorne Garrettson. Six members voted in favor and no members voted against at approximately 8:55 am.

PRESENTATIONS AND DISCUSSIONS

COMAR 26.11.09 Biomass Fuel-Burning Equipment – Response to concerns raised on September 9, 2013

Starts @ 2:12:15 on audio

Carolyn Jones addressed the Council to cover topics of concern that were raised at the September 9, 2013 Council meeting. Mrs. Jones informed the Council that the

Department has been moving forward with the formal proposal and adoption of the regulation as planned following the September 9, 2013 AQCAC approval vote of the regulation. As there were concerns raised by the Council on several issues, the Department agreed to respond to the Council's concerns at the next scheduled AQCAC meeting while moving forward with the adoption of the regulation. The Department had planned to update the Council of this action in December of 2013, however this meeting was canceled due to weather. A Notice of Public Hearing was published in the Maryland Register on January 24, 2014. A public hearing is scheduled to be held on February 26, 2014. Additional comments or concerns may be brought forward to the Department at the public hearing.

Mrs. Jones provided an overview of the biomass rule and process and mentioned that the regulation will help support the State's efforts regarding climate change, Chesapeake Bay nutrient reductions and Energy Efficiency credits. Technologies have greatly improved since biomass was first addressed in COMAR, and biomass fuel burning is a much cleaner process comparable to other common fuels. MDE has reached out and coordinated with other northeast states as many of these states have a lot of woody biomass sources and the Department wished to get their input on our proposed regulation and see how they were addressing biomass as a fuel. The Department learned that to date most other states were not addressing biomass as the states primarily dealt with sources burning wood only and were controlling these sources through either emission limits or permit process. The states recognized that Maryland was ahead and addressing the broader spectrum of biomass.

The main issues of concern involved fuel testing and hazardous air pollutant control. The Department has continued to work closely with stakeholders to gather information regarding biomass fuel burning and to help address the concerns raised by the Council. The first question addressed was "What are the arsenic levels contained in poultry feed in Maryland and what would be the levels of arsenic emitted by biomass boilers burning poultry litter?" Mrs. Jones noted that House Bill 167, effective January 1, 2013 effectively reduced the concern of arsenic in chicken feed and in fact many farms have been using non-arsenic feed prior to the ban. The second question addressed was "What types of fuels were reviewed in the EPA biomass MACT analysis and how do the Federal Rules address air toxics?" Mrs. Jones noted that EPA spent twenty years developing the biomass MACT and that several hundred thousand boilers were reviewed for all types of fuels including biomass. The MACT standards are set based on the best performing data (top 12% of fuel category), and measures, processes, methods, systems, techniques and innovative modifications are used to limit the emissions of HAPs from boilers. The EPA MACT standards regulate arsenic and other toxic pollutants. Through the MACT process EPA uses PM as a surrogate for the numerous HAP pollutants. The third question answered was "Can creosote treated wood be used as a fuel for a biomass boiler?" Mrs. Jones responded "No" and noted that the EPA has a specific process that secondary (biomass) materials need to be reviewed and compared to traditional fuel for pollutant content in order to be approved as a fuel. The "legitimacy criteria" is under the EPA Non-Hazardous Secondary Materials (NHSM) rule and noted in COMAR definitions.

Mr. Quinn noted that the Department is not seeking a vote on this action as the Council already voted to approve the regulation in September of 2013. **The Department is merely providing a briefing to the Council to address comments raised and Mr. Quinn believes the Department addressed these issues.** Ron White pointed out that a form of arsenic may at times be permitted in chicken feed under the House Bill 167, though this may more commonly be utilized in turkey farms. Mrs. Jones responded that the fuels utilized by farms in a biomass fuel burning application would still need to go through EPA testing and meet the legitimacy criteria for fuels. Mr. Waheed noted that through limited data gathered by the State and more detailed reports from Sustainable Chesapeake, very low arsenic levels were detected in poultry litter from Maryland farms. **Mr. White acknowledged that the information provided by MDE staff was very helpful and addressed the issues raised at the last meeting**. **Mr. Quinn noted that the Council has approved this regulatory amendment to move onward in the administrative process. Mr. Quinn queried whether the Council was satisfied that all issues were satisfactorily addressed. No issues remained.**

Mr. Schoen mentioned that some testing of the fuel source was required to get a permit, but asked what happens over time to ensure compliance. Mrs. Jones mentioned that reporting, maintenance and optimization tests are required in the regulation. Mr. Waheed mentioned that so long as the fuel source does not change, once EPA issues approval the fuel utilized remains in effect as approved fuel for the unit. Changing fuels would require further review by EPA for approval.

Mr. Quinn asked for those who had signed in to give a statement. **The following individuals gave a statement in support of the proposed regulation. Many commenter's requested MDE to move as expeditiously as possible to adopt the proposed regulations.**

Kyle Haas from Maryland Energy Administration, Jonathan Kays from Maryland Wood Energy Coalition, Gary Allen from Sustainable Forest Council, Dan Rider from Department of Natural Resources, Kristen Hughes Evans from Sustainable Chesapeake, Tom Johnson from Eastern Shore Forest Product, Paul Lewendowski from AFS Energy Systems and Joseph Seymour from Biomass Thermal Energy Council spoke.

Mr. Quinn thanked the presenters, speakers and council for addressing the previous concerns. *No other comments were made. John Quinn concluded the Biomass Topic at approximately 10:00 am.*

RACT for Coal-Fired Power Plant

Mr. Aburn presented on the MDE focus on coal-fired power plants. The Department is looking at establishing new emission limits for Nitrogen Oxides (NOx) and Sulfur Dioxide (SO2) at coal-fired electric generating facilities. The Department has initiated a stakeholder process to address new limits. The schedule calls for regulations to be

adopted by summer 2014. There was a first meeting in October 2013. We will continue stakeholder meetings through spring.

Ground level ozone has improved dramatically but we still monitor levels above the health based standard. Fine particle levels are currently below attainment levels however new and future ozone and fine particle standards will continue to push Maryland to seek more emission reductions. Maryland is the fourth most vulnerable state to sea level rise, this is one of the major impacts from climate change. Contribution of air pollution sources to nitrogen deposition in the Chesapeake Bay is a major issue.

Maryland and the region have made great progress since 1990. The Maryland Healthy Air Act worked well. But, the new 75 ppb ozone standard requires us to focus on peak day NOx emissions. The Healthy Air Act annual and "ozone season" caps have not driven units to always run emissions controls when they are needed. We are seeing a trend in lower capacity factors at many units. Coal units are simply not being asked to run as often as they used to run. Some units also appear to not always be running their control equipment at a high level of efficiency to insure maximize emission reductions.

The new 1-hour SO2 standard demands a different regulatory scheme. Investigations have started into 1-hour emission limits instead of an annual cap. We are looking at unit-by-unit controls instead of company-wide averaging.

Next Steps will be to continue to analyze data and work with Stakeholders. Mr. Schoen asked if Mr. Aburn could give him a preview on what MDE is expecting to hear from Stakeholders?" Mr. Aburn commented that the interested parties are all coming to the table with ideas and are willing to work with us. Details will need to be flushed out.

Stage II Vapor Recovery

Tad Aburn presented a summary of stakeholder input on the proposal to amend the regulations for Stage II vapor recovery and provide incentives for charging of electric vehicles. The key elements of the draft regulations are new units versus older units, how quickly can existing stations decommission and making up for lost emission reductions. Mr. Aburn stated that stakeholder meetings, as well as EV charging plan workgroup sessions, have occurred and are scheduled into 2014. An aggressive schedule would be to present a regulation to the Council in May or June.

On July 8, 2011, EPA released a policy called "Widespread Use for Onboard Refueling Vapor Recovery (ORVR) and Stage II Waiver". Through the Clean Air Act (CAA), this allows EPA to waive Stage II Vapor Recovery Programs when these new on-board or "ORVR" systems are in widespread use in the vehicle fleet. A comprehensive analysis consistent with EPA requirements has been performed. The bottom line take-home details are 1) About a two tons per day loss of VOC emissions reductions/credits and 2) Widespread use in Maryland is in the 2017 to 2020 time frame.

Details for SIP methodology and station upgrades have been discussed through stakeholder meetings. Stage II is currently required by regulation and is part of the Maryland SIP. To move away from Stage II the regulation will need to be amended and approved by EPA as a SIP revision. States that shut down Stage II without going through the appropriate analysis and without formally amending their SIP face third party litigation (and at least the threat of an EPA finding of failure to implement)

Through stakeholder outreach, there is an industry push for need to decommission ASAP, many investments are on hold. The basic concepts that are in discussion now are 1) Small operations are allowed to move away from Stage 2 very quickly with virtually no additional action or responsibility to make up for lost credits 2) Larger operations may also move away very quickly but are being required to shoulder the full responsibility for making up for the lost reductions and the requirement is to implement an Electric Vehicle (EV) Charging Plan.

An EV Charging Plan will require owners who have many stations to install EV Chargers over the next 6 years. The estimate is about 50 to 70 Fast Chargers will be strategically located around the state. These operations represent the largest emissions in category and the EV incentive will help to continue progress in Maryland in cleaning the air.

Sara Tomlinson asked, “Is the 50 to 70 fast chargers statewide and would that be the most you are expected to see? How fast is a charge? Mr. Aburn responded that the charging time range could be 30-40 minutes. The estimate of 50 charges is statewide.

Ronald White asked if this regulation and assessment needs to be done quickly especially giving the assessment on the delaying and penetration until several years down the road. Mr. White asked "Are you looking at a scenario where gas stations will be removing the nozzles? What is involved with that and what might the cost be? MDE responded that there are specific procedures for the decommissioning of Stage II and they are referenced in the draft regulation. Vapor recovery lines are required to be capped and tests have to be performed. An approximate cost range for medium sized station is expected to be in the range of $10,000 to 12,000.

The Council asked when would MDE expect to discuss strategies for making up the short-fall? Lawrence Schoen commented, in considering there may be a 2 tons per day VOC shortfall, "Have you considered that on a station with a certain size, one tank would remain as Stage II for the public to use for small cans and older vehicles?" MDE responded that the potential strategies to make up the shortfall will be included in a more detailed response to the Council.

The Council questioned whether personal exposure might come into play with the decisions? MDE responded that detailed analysis has been conducted regarding widespread use of ORVR technology and the questions raised have been looked into and are also being addressed as amendments are developed. The stakeholder process is ongoing and this presentation is to provide an update on the status so far and the options

under consideration. More detailed responses will be provided to the Council later as the regulation is developed further.

Confirmation of Next meeting dates:

The Council's next meeting dates were confirmed for:

March 31, 2014

Meeting dates were to be developed for the year 2014 and submitted to the Council.

The meeting adjourned at 10:40 a.m.