Air Quality Control Advisory Council Meeting Notes March 13, 2017 @ 8:15 am MDE Headquarters 1800 Washington Boulevard Baltimore, MD 21230

AQCAC MEMBERS PRESENT

John Quinn - Chairman John Kumm, P.E. Sania Amr, M.D. Jonathan Kays Sara Tomlinson Todd Chason, Esq. Lawrence (Larry) Schoen, P.E. Lawrence Kasecamp Julian Levy Ross Salawitch, PhD

MDE-ARMA

Brian Hug Carolyn Jones, P.E. David Mummert Eddie Durant Husain Waheed, PhD Joshua Shodeinde Kathleen Wehnes Megan Ulrich, Esq. Randy Mosier Suna Sariscak Wendy Sollohub

AQCAC MEMBERS ABSENT

Sue Garonzik Hon. Leta Mach

VISITORS

Matt Brandon – W.L. Gore Associates Bill Levington – W.L. Gore Associates Tom Weissinger – Raven Power Ms. Dixon - Northrop Grumman Ms. Ferguson Rachael Feinstein – Hearth, Patio, Barbecue Assocation Tamara Toles O'Laughlin Don DiCristisofaro – EnerNoc – by webinar

This is a summary of the March 13, 2017, 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. Available at MDE website: http://mde.maryland.gov/programs/workwithmde/Pages/AQCACmeetingminutes.aspx

MEETING OPENING/OPENING REMARKS

Chairman Mr. John Quinn opened the meeting by welcoming everyone to the Air Quality Control Advisory Council (AQCAC or the Council) meeting.

Approval of Minutes from December 12, 2016 meeting:

Chairman John Quinn called for a motion on the December 12, 2016 meeting minutes at approximately 8:29 a.m.

Motion to approve the December 12, 2016 minutes was made by Julian Levy and seconded by Todd Chason. Nine members voted in favor, and none opposed, at approximately 8:29a.m. (~ 8 min into recording).

ACTION ON REGULATIONS

COMAR 26.11.36 – Distributed Generation

Ms. Carolyn Jones presented the proposed amendments to COMAR 26.11.36 – Distributed Generations at approximately 8:46 a.m. (~ 24 min. into the webinar recording).

The primary purpose of this action is to amend existing requirements for emergency generators and load shaving units operating under a Demand Response (DR) program. Requirements for emergency generators are codified under COMAR 23.11.36 – Distributed Generation. The proposed amendments reflect changes in the federal requirements for stationary internal combustions engines (ICE) and reciprocating internal combustion engines (RICE). In addition to amending COMAR 26.11.36, the Department is proposing supporting amendments to Regulations .01 – definitions, and .10 – Sources Exempt from Permits to Construct and Approvals, of COMAR 26.11.02 – Permits, Approvals, and Registration.

Traditionally, emergency engines were installed at facilities as an emergency back-up of power in the event of a failure of electric power from the grid. Over time, as the cost of electricity increased, many facilities would operate their emergency engines during non-emergencies to reduce their electric bill. Owners of emergency engines also entered into contractual agreements to operate their emergency engines and perform other electricity curtailment activities to reduce their cost of electricity while contributing to the stability of the electric system.

The Department's proposed amendments align Maryland regulations with federal requirements and provide clarity for Maryland permitted sources. Specifically, the proposed amendments restrict, if not fully eliminate, the operation of emergency engines and load shaving units. These amendments also update permitting requirements. Certain emergency engines are exempt from acquiring a "Permit to Construct & Registration Application". MDE plans to continue to follow federal updates and court cases that would affect Maryland regulations.

Over the years that the EPA was developing and implementing these new federal requirements for emergency engines, a number of court cases were filed against specific sections of the code of federal regulations. One such court case that has been settled, referred to as the "100-hour provision", removes the possibility of emergency engines, or uncontrolled engines, from operating in a DR program. A second court case, which is still pending, deals with the limited allowance for an emergency engine to operate during a non-emergency. This topic is referred to as the "50-hour provision".

Ross Salawitch inquired if there was any quantification at how much NOx is emitted on the worst days, when many engines would be running such as part of a DR event. Kathleen Wehnes stated that the Department has data on the operation of engines as collected by the Curtailment Service Provider (CSP) reports required by existing MDE regulations. The CSP reports have demonstrated that on one day in 2011, under the worst case scenario, these engines could have contributed close to 7 tons of NOx emissions. Another event that was analyzed by the Department showed up to 2 tons per day emitted by emergency engines. The Department agreed to share this data at a later date.

Julian Levy and Todd Chason inquired as to what typically causes emergency generators to run. The Department responded that usually emergency generators (engines) are used in the event of emergencies, for example, if a transformer goes down, or if equipment is not working at the site. Jonathan Kays asked if a facility has an emergency or failure, can they use their emergency generator. Julian Levy asked if generators can be tested for one hour a month. The Department stated that facilities can use the engines for an unlimited period of time during such emergencies. Also, facilities are allowed to test their emergency generators as needed. Julian Levy asked if stationary combustion engines that serve as a primary source of power for agricultural or industrial equipment typically run by diesel. The Department responded that they primarily are diesel, but newer models are running on natural gas.

Larry Schoen asked if the 50-hour provision for facilities can be used at their discretion. Don DiCristofaro, with CSP EnerNOC, commented through the webinar chat that the federal rules have five specific conditions that need to be met in order to use the 50-hour provision. The Department followed up this comment with the observation that the 50-hour provision is still under court review.

Matt Brandon, a representative from W.L. Gore Associates, stated that his facility does not participate in the DR program. W.L. Gore is using engines strictly for emergencies. W.L. Gore is concerned that they are not able to operate emergency generators during planned maintenance for power because the permit states emergency generators cannot be used for non-emergencies. W.L. Gore is considering bringing in smaller engines on skids to comply with the rule. The Department stated that by aligning the Maryland regulations with the federal regulations, this concern will be removed and the NSPS engines may operate during planned testing of emergency generators. The Department noted that specific permit details can be reviewed by request. John Quinn and other stakeholders also recommended that the W.L. Gore issue could be better dealt with through the permitting process with the Department. The Department noted that alignment between MDE and EPA's regulations should remove discrepancies in future permits, and facilities with existing permits can contact the Department with any concerns pertaining to a permit evaluation.

Todd Chason commented that the proposed amendments do not take away a facilities choice to adding emission controls or performing upgrades to use an engine for a DR program. The Department agreed. Larry Schoen inquired if an existing engine can be run continuously in a new, unrelated operation. The Department stated that under federal regulations, this is not allowed, since the engine has to follow the applicable NSPS or NESHAP regulations. The Department stated that they do not permit certain smaller engines, but these smaller engines still need to follow the applicable federal operation and maintenance requirements. If a facility chooses to operate an emergency engine for unlimited hours it would violate the federal rules. Larry Schoen asked if the Department would be tracking smaller, older generators that might be operated continuously. The Department commented that even though MDE does not permit smaller engines, it does often find out about these small pollutant sources from nuisance complaints. The Department can conduct a site evaluation and require a permit registration, or best operating practices, as applicable. Suna Sariscak, with the Air Quality Permits Program, stated that smaller engines are tracked for major sources as additional site activity.

John Kumm asked if the Department had any concerns over older generators/engines that may be retrofitted to be used as non-emergency engines and be able to run under DR Programs. The Department agreed that older engines are only regulated under EPA's NESHAP and that owners of these engines may only need to install a CO catalyst and not NOx emission controls. Data the department has on permitted engines shows that out of 400 plus NESHAP engines only 10 have chosen to upgrade. The Department feels that owners are not going to install emission controls on smaller and older engines in order to participate in DR because it is costly. Should an owner chose to install emission controls to run in a DR program, the Department would know about this action because those engines would then be included in the annual CSP reports received by the Department.

John Quinn suggested that the Council vote on this proposal to align MDE regulations with the federal regulations, and if there are any desires for more stringent steps beyond the federal rules, these could be requested or listed as additional items for discussion and adoption in a separate action. The Council requested that the Department prepare a summary paper providing further details on generator operations. The items of interest to be reported on included small generator operations; repurposing older engines; emission data; information on the addition of emission controls that the Department may have considered; and a simple outline of the differences between the NSPS and NESHAP programs, as it applies to these COMAR amendments. The Council then voted to accept the proposed amendments as written.

Motion to approve the amendments was made by Julian Levy and seconded by John Kumm. Nine members voted in favor and no members voted against, at approximately 9:27 a.m. (~1 hr and 12 min into the webinar recording).

COMAR 26.11.09.11 - Small Wood Boilers

Mr. Eddie Durant presented the proposed amendments to COMAR 26.11.09.11– Control of Particulate Matter from Small Wood Boilers at approximately 9:28 a.m. (~*1 hr and 12 min into the webinar recording*).

On February 3, 2015, EPA strengthened its clean air standards for residential wood heaters (also known as wood boilers or hydronic heaters) to make new wood boilers significantly cleaner. The action also improves air quality in communities where people burn wood for heat. This rule, promulgated as one a New Source Performance Standard (NSPS), will phase in particulate matter (PM) emission limits over a five-year period, beginning in 2015. A more stringent PM limit is established beginning in 2020, as well as certification, testing and labeling requirements. The standards apply only to new residential wood heaters and will not affect wood heaters already in use.

The purpose of this action is to repeal existing Regulation .11 under COMAR 26.11.09, and associated definitions in COMAR 26.11.09.01, due to the new federals rules in place regulating residential hydronic heaters under 40 CFR 60, subpart QQQQ. Repealing Maryland's small wood boiler regulation (units that are 350,000 Btu or less) will remove any conflict that currently exists between Maryland's existing regulation and the federal rule.

Julian Levy inquired on the prevalence of wood boilers in Maryland and how would wood boiler owners learn that they are subject to the federal requirements. MDE responded that most wood boiler owners are located in the eastern shore or western Maryland, but MDE does not have a complete inventory on the number of wood boilers in the State. In order to spread the word about the federal requirements, MDE informs major manufacturers and distributors of wood boilers of the requirements. Additionally, MDE reached out to a number of stakeholders and broad audience from existing distribution lists.

Julian Levy expressed concerns on the upkeep/maintenance of wood boilers and downwash that occurs from low stack heights. Larry Schoen commented on the trickiness of regulating the different fuel used by homeowners. In MDE's former rule, there were no mandatory maintenance requirements. However, Ms. Rachel Feinstein with the Hearth, Patio & Barbecue Association, commented that the federal rule requires wood boiler owners to use the equipment consistent with the operation manual. Additionally, homeowners who install these units are typically adhering to the operation manual to preserve their investment.

Ross Salawitch inquired about placing a direct reference in COMAR pointing to the federal rule. Larry Schoen asked if Maryland's proposal is becoming more or less stringent. The Department is repealing regulations and therefore manufacturers, distributors, retailers, homeowners, etc. are now subject to federal regulations. MDE has the authority to implement federal NSPS for any source category in the state, as codified in COMAR. The federal rule is automatically in effect and MDE is simply "getting out of the way". Now, all wood boilers must meet the EPA certification, in all of the US States. There will be a more stringent emission limit starting in 2020 for new units.

Jonathan Kays, who works as an extension forester, commented that wood is a renewable energy resource and public education awareness is required and provided through various resources. However, Larry Schoen pointed out that within the green buildings industry it is not universally agreed that wood is a renewable resource.

The Council commented that they would be interested in future provisions for maintenance, something like recertification every five years, as well as seasonal prohibitions and operational usage requirements like set-back provisions and stack height requirements.

Motion to approve the amendments was made by Jonathan Kays and seconded by Julian Levy. Nine members voted in favor and no members voted against, at approximately 10:13 a.m. (~1 hr and 52 min into the webinar recording).

COMAR 26.11.33 – Architectural Coatings

Mr. Eddie Durant presented the proposed repeal of COMAR 26.11.33 at approximately 10:14 a.m. (~*1 hr and 53 min into the webinar recording*).

In 2004, the Maryland Department of the Environment (MDE) adopted COMAR 26.11.33 - Architectural Coatings which established VOC content limits for architectural and industrial coatings, established recordkeeping and container labeling requirements for manufactures of paints and coatings, and painting practices for the use and application of coatings.

On April 25, 2016, the Department adopted COMAR 26.11.39 – Architectural and Industrial Maintenance (AIM) Coatings, which incorporates Phase II of the OTC AIM 2011 model rule. Rather

than amend the existing AIM regulations in COMAR 26.11.33, the Department decided to create a new chapter (COMAR 26.11.39) to seamlessly update the new product categories and standards of the Phase II OTC AIM 2011 model rule. The Department maintained COMAR 26.11.33 until January 1, 2017, when the standards and requirements of COMAR 26.11.39 became effective.

Larry Schoen asked if this action was a loosening or strengthening of the existing regulations. MDE responded that this is a strengthening step as VOC limits were lowered in the replacement regulation. This rule has a 2.6 tons per day VOC reduction estimate.

Motion to approve the repeal was made by Dr. Sania Amr and seconded by Todd Chason. Nine members voted in favor and no members voted against, at approximately 10:19 a.m. (~1 hr and 57 min into the webinar recording).

BRIEFINGS

Maryland's Progress on Updating the Greenhouse Gas Reduction Act

Mr. Brian Hug presented a briefing on Maryland's progress on updating the Greenhouse Gas Reduction Act (GGRA) at approximately 10:20 a.m. (~*1 hr and 59 min into the webinar recording*).

Maryland has experienced the effect of Climate Change in the average sea level rising over the course of the past 120 years. The Maryland Commission on Climate Change (MCCC or Commission) was established in 2007 to provide recommendations on how to reduce greenhouse gas emissions and adapt to the impacts of climate change. Eventually, the Commission's work led to the development of the GGRA of 2009 that required Maryland to reduce greenhouse gas emissions from 2006 levels by 25% by 2020. The GGRA of 2016 was signed into law in April 2016 which required a 40% reduction by 2030. Specifically, the GGRA proposes that Maryland reduces vulnerability to climate change, reduce the impacts of climate change, and provide actions that must support economic development and job creation.

Based on recent analysis, Maryland is on pace to achieve a 25% reduction of greenhouse gas emissions from 2006 levels by 2020. The reauthorized GGRA maintains all of the key issues that are part of the balance that allowed the 2009 and 2016 legislation to pass with support from all interested parties, and the law continues to include a balanced set of requirements and safeguards.

Julian Levy asked if other states are following Maryland's greenhouse gas initiatives, and if the State is coordinating any regional plans. MDE responded that there have been other states that developed climate plans after Maryland finalized its climate plans, but no state has directly indicated the development of a plan based on Maryland's plan. Ross Salawitch commented that some of the coal-fired electric generating units are operating at the same capacity similarly to the way they have operated in the past, and wondered how Maryland is accounting for their operation. MDE responded that Maryland imports 30 - 40 % of electricity consumed and the GGRA must account for all of the electricity that is consumed in-state. Energy produced outside of the state has been cleaned up which is driving down reductions of in-state use.

Sara Tomlinson requested that if the CAFÉ (corporate average fuel economy) standards were extended to 2025, Maryland should look at how the change will impact Maryland's mobile sector.

Jonathan Kays inquired if the GHG inventory is reassessed over time. MDE responded yes - when the inventory is being calculated, the State takes a bottom-up approach in calculating emissions and the emissions inventory is reassessed every three years to ensure accuracy.

Ross Salawitch inquired what MDE means by "short-lived pollutant". Dr. Salawitch also inquired about MDE's effort in facilitating composting since a lot of methane is coming from landfills. Dr. Salawitch stated that 50 % of funds from RGGI (Regional Greenhouse Gas Initiative) were supposed to go to energy efficiently retrofitting, and asked if MDE try to redirect money from RGGI to mitigate greenhouse gas. According to Dr. Salawitch, RGGI funds are not being used as previously expected. MDE responded by saying the "short-term pollutant" is methane. Composting is on the wish list of things to do. MDE also stated that a host of programs and initiatives are needed to help achieve GHG goals.

Larry Schoen inquired about whether land-use planning and development is being looked into to achieve GHG goals. Mr. Schoen stated that it is critical to consider land-use planning to aid in achieving GHG goal and encourages more action from Maryland. MDE stated that based on the plan, Maryland is on target to reach our goal with reductions expected between 2017 and 2019. MDE noted that there are two land-use programs in the climate action plan and we expect these programs to expand over the years.

The meeting was adjourned at approximately 11:04 A.M.

Next meeting date:

June 19, 2017

Jonathan Kays will be on sabbatical for the next six months but will occasionally join by phone.

2017 meeting dates:

September 18, 2017 December 11, 2017