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Air Quality Control Advisory Council Meeting Minutes December 9, 2024 @ 9:00 am In person meeting held by MDE

AQCAC MEMBERS PRESENT

Todd Chason, Esq, Chair
Ben Hobbs, PhD, Vice Chair
Anne Klase
Megan Latshaw, PhD
Larry Schoen, PE
Sania Amr, MD, MS
Sunhee Park, PE, BCEE
Thomas Dernoga, JD
Weston Young, PE
Anna Marshall, AICP
Thomas Killeen
Arielle Wharton

MDE

Chris Hoagland
Kelsey Sisko
Kathryn Seaman
Eddie Durant
Mark Stewart
Sam Furio

VISITORS

Chris Pendley
Dave Arndt
Jason Freeman
Engine Tech Forum
Mike Walther
Matthew Girgenti
Brittany Sullivan

AQCAC MEMBERS ABSENT

Adrienne Hollis, PhD, JD
Nicole Cook, JD
Ross Salawitch, PhD

Randy Mosier
Justin Smith
Roger Thunell
Gabby Leach
Zach Berzolla
Kara Dorr

Jason Mathias
Lisa Post
Hannah Allen
Sari Amiel
David Cramer
Sheila R. Howard
1 telephone caller

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*This is a summary of the December 9, 2024, 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/ARA. 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. ***Please note, this meeting does not have a meeting recording.***

MDE website: <http://mde.maryland.gov/programs/workwithmde/Pages/AQCACmeetingminutes.aspx>

Mr. Chris Hoagland, Director of the Air and Radiation Administration, MDE, began the meeting at 9:05 a.m. by informing the Council of this meeting's action item: An amendment to our regulations to update sulfur content in fuel oil. Mr. Hoagland also informed the Council that there are two briefings including a presentation on actions presented to the Council in 2024 and actions to come in 2025.

Mr. Hoagland then handed the meeting off to Mr. Todd Chason, AQCAC Chair. Mr. Chason asked for introductions from Council members and MDE employees.

MEETING MINUTES

Mr. Chason asked if Council members reviewed the September 16, 2024 meeting minutes and if there were any questions or comments before approval. No comments were made by the Council.

The Chairman motioned for approval of the meeting minutes. A motion to approve the meeting minutes as presented was made by Dr. Sania Amr and seconded by Ms. Sunhee Park. Eleven members voted in favor to approve the meeting minutes from September 16, 2024 at approximately 9:09 a.m. Mr. Larry Schoen abstained.

ACTION ITEMS

Sulfur in Fuel Oil Amendments

Ms. Kelsey Sisko presented to the Council the proposed amendments to COMAR 26.11.09.01 and .07 – Definitions and Control of Sulfur Oxides from Fuel Burning Equipment. Ms. Sisko began her presentation with some background information to inform Council members that this regulation amendment applies to facilities that burn distillate and residual fuel oil and defined what these oils are. Ms. Sisko let the Council know that Maryland's Comptroller Regulations, COMAR 03.03.05.04, lowered their sulfur in fuel oil content limit for distillate fuel oil (No. 1 and No. 2) in 2019 to .0015% sulfur content by weight. The amendments to 26.11.09.07 would align with the Comptroller Regulation, as well as fulfill the Mid-Atlantic Northeast Visibility Union's (MANE-VU) Ask #3. The regulation amendment would also propose to lower sulfur limits for residual fuel oil (No. 4, No. 5, and No. 6).

Ms. Sisko touched upon some of the Clean Air Act (CAA) requirements – Section 169A of the CAA requires the EPA to address impaired visibility (regional haze) in 156 national parks, forests, and wilderness areas that have been federally designated as Class I areas. In 1999, EPA issues the Regional Haze Rule which requires states to develop SIPs to reduce haze-causing pollution to improve visibility in Class I areas. EPA established five regional planning organizations across the country to coordinate regional haze efforts. Maryland is included in one of them – MANE-VU. In June 2007, MANE-VU states agreed to pursue several strategies to reduce SO₂ emissions, the main contributor to visibility impairment in our region, which included lowering the sulfur content in distillate and residual fuel oils. On August 25, 2017, MANE-VU signed and released a statement containing six "Asks" to be addressed and Ask #3

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referred to the reduction of sulfur content in fuel oil as soon as possible, or before 2028. The standards MANE-VU asked for include:

- Distillate fuel oil (No. 1 and No. 2) – 0.0015% sulfur by weight
- No. 4 residual fuel oil – between .25 to .5% sulfur by weight
- No. 6 residual fuel oil – between .3 and .5% sulfur by weight

Maryland's Comptroller Office had previously adopted amendments under COMAR 03.03.05.04 specifically for No. 1 and No. 2 distillate fuel oil. The amendments lowered the maximum allowable amount of sulfur in several stages, and in 2019 is when the third stage was finalized matching MANE-VU's Ask #3 of .0015%. Since 2019, distillate fuel oil being purchased in Maryland has been meeting the sulfur content standard of .0015%. The Comptroller regulations do not address residual fuel oil, but MDE is proposing to lower sulfur content in residual fuel oil (No. 4, No. 5, and No. 6) to address the MANE-VU Ask.

Sources affected by the proposed amendments include mainly electric generating units, boilers, asphalt plants, and stationary emergency generators. The regulation applies to the owner or operator of fuel-burning equipment combusting distillate or residual fuel oil, on or after January 1, 2026, within the state of Maryland. This regulation is applicable throughout the entire State. Beginning January 1, 2026, a person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of:

- 0.0015% (15 parts per million or ppm) sulfur by weight for distillate oil (No. 1 and No. 2 fuel oil); and
- 0.3% (3,000 ppm) sulfur by weight for residual oil (No. 4, No. 5 and No. 6 fuel oil)

The Department is also removing sections of the regulation that provided exemptions for specific facilities that are no longer in operation and have shut down. All regulatory requirements will now be applicable state-wide rather than by areas of the state.

New recordkeeping and reporting requirements are added to the regulation and apply to a person offering to sell or deliver fuel, or any person responsible for the equipment in which the fuel or process gas is burned. This section requires affected sources to maintain records of information for the Department to be able to determine compliance of the regulation. All records must be made available to the Department upon request and maintained for five years from the date of creation.

Ms. Sisko informed the Council that No. 1 and No. 2 distillate oil with a sulfur content of .0015% has been sold in Maryland since 2019 following the Comptroller regulations. The Department's research indicates that a majority of fuel oil that is being combusted within facilities, such as electric generating boilers and turbines and stationary emergency generators, is primarily distillate oil and meeting the Comptroller limits. A few sources using residual fuel oil (No. 4, No. 5, and No. 6) reported they meet the proposed sulfur content limit of .3%. Other MANE-VU states already have both the distillate and residual fuel oil sulfur limits in place and the compliant fuel is readily available.

The Department performed stakeholder engagement and send an email out on September 6, 2024 to stakeholder with a draft regulation and a fact sheet for review and comment. The Department received a comment that some powerplant facilities have distillate fuel oil on site that was purchased prior to the Comptroller regulations taking effect. This older fuel, and new compliant distillate or residual fuel that is purchased, is then blended within a tank, ultimately lowering sulfur content levels over time. Due to this comment, the Department included carry-over provisions to the proposed amendments so that a person

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may burn fuel containing sulfur content limits in excess of .0015% distillate or .3% residual that were purchased prior to January 1, 2026.

Further research also indicates that the residual fuel oil being combusted at asphalt plants in Maryland currently meets the proposed limit in this action and facilities are already purchasing residual fuel with a sulfur content percentage as low as .1% and up to .19%. Powerplant facilities are also purchasing residual fuel under .3% which meet the purposed sulfur content limits. Some powerplant facilities may often blend .0015% distillate with residual fuel oils to make a lower sulfur fuel oil for combustion that generally ranges from .2-.25% or solely use distillate fuel oil for combustion.

Ms. Sisko talked through the projected emission reductions, which through the Department's research, SO₂ emissions of NO. 6 fuel oil will, or already have been, reduced by over 80% as compared to existing COMAR limits. The Department believes there will be similar reduction for No. 4 and No. 5 residual fuel oil as compared to No. 6. Reductions of the sulfur content for No. 2 fuel oil have been estimated to be 99.5% since the adoption of COMAR 03.03.05.04.

Ms. Sisko stated that the Department is looking to finalize and adopt these amendments by mid-year 2025 and the regulation requirements effective January 1, 2026.

Mr. Weston Young asked why distillate fuel oil is regulated under the Comptroller Regulations. Ms. Sisko informed Mr. Young that they regulate other oils, and Mr. Randy Mosier added that the Comptroller Regulations are responsible for regulating fuel oil, motor fuel oil, etc.

Dr. Ben Hobbs asked if the sulfur tonnage in MDE's inventory will be reduced by this and how much will it be reduced by. Mr. Roger Thunell, Program Manager of the Air Quality Planning Program, informed Dr. Hobbs that approximately 50% of sulfur emissions come from fuel oil sources, but the tonnage is minimal, and it would take a lot of time to get a full answer, but although it is minimal there are health and visibility benefits. The 2023 inventory is not yet completed. The next steps would be to work on NO_x reductions.

Mr. Larry Schoen was concerned about the carry-over provisions for the amendments and facilities buying large amounts of non-compliant fuel that they can then burn after January 1, 2026. Mr. Mosier stated that most facilities are already purchasing and burning compliant fuel that is readily available throughout the region. There are only a few affected sources that utilize residual fuel oil. The Department addressed stakeholders concerns in the development of the carry-over provision as there are a few sources that have higher sulfur fuel on-site and it wouldn't be practical to not allow them to use what they have on hand before purchasing compliant fuel. All sources that have higher sulfur fuel on hand have been continually blending oil on-site and ultimately combusting fuel that already meets the proposed residual fuel oil limit. Mr. Schoen asked if permits have a stricter limit and if facilities are to follow those rather than what is in the regulation, and if it is easy for facilities to get a permit with lower limits. MDE ARA Staff, along with Council members, informed Mr. Schoen that yes, many permits have a lower limit than the regulation and that they must follow their permit, not what the regulation says. Ms. Park explained to Mr. Schoen what is included in the permits. MDE ARA Staff and Council members stated that a facility cannot get a permit asking for a more lenient sulfur content fuel limit beyond the regulatory requirement. Mr. David Cramer from Lanyard spoke on behalf of Chalk Point and GenOn and that they have distillate fuel oil as high as 2,000 ppm on site, but as they restock their fuel, they purchase 15 ppm distillate fuel oil, and this carry over provision is important to these facilities to be able to run through their older

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distillate oil. They have a 2 million gallon tank of No. 2 fuel oil, but only burn 300,000 gallons per year so there is a mix of No. 2 oils from each change in regulatory limits, but the sulfur content is diluted over time. Their facilities do not burn No. 6 fuel oil, and since 2019, any facility in Maryland is only able to purchase compliant distillate fuel oil due to the Comptroller regulations.

Mr. Schoen asked if MDE could add a provision that any fuel purchased before 2026 would have to be blended to a compliant sulfur content before burning. Mr. Randy Mosier answered that it is possible, but sources are currently burning fuel oil that is either in compliance with the proposed residual fuel oil standard or trending towards the distillate fuel oil limit, so it doesn't seem necessary.

Mr. Thomas Killeen asked about the usage of No. 6 fuel oil within other states and whether Maryland would ever consider banning residual fuel oil. Mr. Randy Mosier mentioned that other states do utilize No. 6 residual fuel oil, but only Washington DC has prohibitions for this fuel oil. Ms. Sisko further added that DC, outside of their distillate fuel oil sulfur content limit, only has a limit for No. 4 residual fuel oil at .25% sulfur content. Mr. Mosier stated that the Department will continue to review fuel oil usage within Maryland, and that we may revisit regulatory requirements for residual fuel oils. Mr. Mosier mentioned that further research would be needed before the Department would consider a ban on residual fuel oil within Maryland. Ms. Sisko mentioned that most facilities in Maryland do not burn No. 6 or other residual fuel oils.

Mr. Schoen introduced a discussion point to ask if it is common for permits to impose more stringent limits than regulations. Mr. Roger Thunell answered that it is common, and also mentioned anti-backsliding and Prevention of Significant Deterioration (PSD) requirements that would prevent facilities from increasing emissions as a result of this regulation.

At 9:57 a.m., a motion to approve the regulation as presented was made by Mr. Thomas Dernoga and seconded by Mr. Weston Young. Due to technical difficulties, the vote was tabled at 10:00 a.m. and the Chairman decided to move on to the next agenda item while the Department staff resolved the online meeting connection issue. During this time, Mr. Todd Chason had to step away from the meeting for approximately 30 minutes. At 10:40 a.m., after the presentation of the Briefing items, the Council returned to the vote. 11 members present voted in favor of the amendment and Ms. Anne Klase abstained at 10:41 a.m.

BRIEFINGS

A Review of 2024 Actions

MDE ARA Staff presented to the Council actions that came forth in 2024 and have been or will be finalized by the end of the year. Mr. Mosier informed the Council on the amendments to Regulations .02 - .03 under Chapter COMAR 26.11.40 NOx Ozone Season Emission Caps for Non-trading Large NOx Units to update certain facilities ozone season emission caps and update a reference to the EPA's Cross State Air Pollution Rule trading program that went final on effective April 15, 2024. Mr. Mosier also provided a review of Amendments to COMAR 26.11.42 for MSW landfills to provide clarification to certain requirements, make stylistic and technical corrections, and better align with federal requirements and noted that the regulations were final effective on August 5, 2024. The Department is currently working to submit a 111(d) State Plan to EPA on this action. Two other actions were a repeal within Regulation .24 from COMAR 26.11.03 to remove affirmative defense provisions to meet federal revisions that went final effective on August 5, 2024, and amendments to COMAR 26.11.43.03 (Advanced Clean

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Trucks) to extend the lead-time manufacturers are eligible to earn credits under the ACT program by an additional year and will be final effective on December 23, 2024. Mr. Mark Stewart, Program Manager of the Climate Change Program, presented to the Council that the Building Energy Performance Standards Regulations, new Chapter COMAR 26.28 Building Energy Performance Standards, will be final effective on December 23, 2024. The regulation requires covered building owners to measure and report data to the Department. The regulation further requires that covered building owners meet specific net direct GHG emissions. The regulation also contains record keeping and reporting requirements for electric and gas companies and district energy providers.

Mr. Schoen asked about the BEPS outreach process. Mr. Stewart and Dr. Zach Berzolla informed the Council that engagement has been ongoing and they have reached nearly 2,500 attendees in 2024 alone. A question from the Council came up asking if they have a final number of building owners. Dr. Berzolla stated that it is very difficult to have a final number since many buildings are owned by the same person.

Actions to Come in 2025

ARA Staff presented to the Council actions to come in 2025. Mr. Stewart stated that in the first half of 2025, the Council will be seeing regulations on the Clean Heat Standard (Part 1: reporting rule for heating fuel providers) and Zero Emission Heating Equipment Standard (transitioning heating equipment from oil, gas, and propane to electric equipment). Mr. Schoen asked which states are working on ZEHES regulations and what industry groups/stakeholders have been involved in the development of the regulation. Dr. Berzolla answered stating that in the Northeast/Mid-Atlantic, New York, Pennsylvania, Maryland, DC, Connecticut, Massachusetts, and Rhode Island are all considering ZEHES under the NESCAUM model rule. California, Washington, and Oregon are all also considering ZEHES policies. California, Utah, and Texas all have low-NOx standards in place already. The NESCAUM model rule was informed by input from manufacturers and other stakeholders, including NESCAUM's EJ Advisory Group. MDE is engaging a wide variety of industry stakeholders, including contractors, architects/engineers, heating fuel providers, environmental justice communities, and the general public this fall and winter as we seek feedback on the Clean Heat Rules. Dr. Berzolla mentioned there is an emailing list available for those interested in being informed of the upcoming regulations.

Mr. Hoagland briefed the Council on the upcoming Regional Greenhouse Gas Initiative (RGGI) updates, the California amendments to Advanced Clean Cars II (ACC II) and Advanced Clean Trucks (ACT), aligning Maryland Methane Control Regulations (26.11.41) to EPA Oil and Gas Emission Guidelines (111(d) State Plan will be required), and aligning Maryland regulations to meet the Greenhouse Gas Electric Generating Units Emission Guidelines 111(d) State Plan.

Dr. Hobbs asked about RGGI and if the updates will bring in new members. Mr. Hoagland explained the situation with Pennsylvania and Virginia and the legal setbacks both states are dealing with. Legally, Virginia is required to return to RGGI but are likely going to appeal the court's decision. Pennsylvania is still sitting on legal issues.

Mr. Young asked about how the grid will be updated to match broadening electrification efforts. Dr. Hobbs and Mr. Stewart responded and mentioned the working groups under the Maryland Climate Commission and Public Service Commission that are focused on this issue.

Mr. Mosier finished the presentation informing the Council that ARA staff will be amending the Consumer Products regulations to include updates from the Regional Ozone Transport Commission's

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(OTC) Phase V model rule, that is based upon California Air Resources Board rules. The Department is also developing a regulation with new requirements for dripless nozzles and low permeation hoses at gas stations.

CLOSING DISCUSSIONS

Mr. Chason adjourned the meeting at 10:44 a.m.

The next AQCAC meeting is scheduled for May 5, 2025.