MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION

FINAL DETERMINATION CONCERNING RENEWAL OF AN AIR QUALITY STATE PERMIT TO OPERATE FOR CSX TRANSPORTATION, INC. – CURTIS BAY PIERS

I. INTRODUCTION

The Maryland Department of the Environment (the "Department") received an application from CSX Transportation, Inc. on July 18, 2023 to renew the Air Quality State Permit to Operate for their Curtis Bay Piers coal storage and transfer facility located at 1910 Benhill Avenue, Curtis Bay, MD 21226.

After reviewing the application and other pertinent information, the Department made a tentative determination to renew the Air Quality State Permit to Operate that would authorize continued operation of the coal storage and transfer facility.

A public meeting was held on October 10, 2024 to receive comment on the Department's draft renewal permit conditions. The public comment period was open through December 16, 2024.

II. COMMENTS RECEIVED AND THE DEPARTMENT'S RESPONSE

The public comment period expired on December 16, 2024 following receipt of a public request for a one-time, 60-day extension. The comments received at the public meeting, and those submitted in writing during the public comment period, expressed concerns about the impact of the facility on the surrounding community. The Department's responses to the comments are attached.

III. DEPARTMENT'S FINAL DETERMINATION

The Department has reviewed all comments and has made a final determination to renew the Air Quality State Permit to Operate for CSX Transportation, Inc. A copy of the Department's response to comments and the issued permit are available on the Department's website here:

https://mde.maryland.gov/programs/permits/AirManagementPermits/Pages/CSX-Transportation-Permit.aspx

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RESPONSE TO COMMENTS
FOR
CSX TRANSPORATION, INC. – CURTIS BAY PIERS
1910 BENHILL AVENUE
BALTIMORE, MARYLAND 21226

Meeting Date: October 10, 2024
St. Athanasius Church
4708 Prudence Street
Baltimore, Maryland 21226

Purpose of the Meeting:
The purpose of the public meeting was to receive comment on the Maryland Department of the Environment's (MDE) Tentative Determination for the renewal of an Air Quality State Permit to Operate for continued operation of CSX Transportation, Inc.'s (CSX) coal, ore, limestone, and other dry material transfer and storage facility located at 1910 Benhill Avenue, Baltimore, Maryland 21226.

Attendance:
Approximately 165 members of the general public attended the meeting. The meeting was also attended by Phylicia Porter representing Baltimore City Council District 10 and a representative from State Senator William Ferguson's office, State Legislative District 46. Ms. Shannon Heafey of the Air and Radiation Administration (ARA) of the MDE presided as the moderator for the meeting. Ms. Suna Yi Sariscak presented ARA's public statement. MDE's Office of Communications provided hybrid meeting support and Spanish language translation services. CSX was represented by Brian Hammock, Aleek Young, and Maurice O'Connell. Cameron Nelms from For the Record, Inc. served as the meeting's court reporter.

Comment Period:
The comment period was open from September 4, 2024 through December 16, 2024 following a request for a one-time 60-day extension to the initial 30-day comment period. Comments were received from the public both at the meeting and in writing during the comment period. The public meeting transcript and written comments received are enclosed with this document.

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Comments and Responses:

1. Comments from Individuals - See Appendix A for Complete Comments

"…strongly urge you to deny CSX Transportation's permit to operate…for the well-being of Maryland's residents and to safeguard our clean energy future…"

"…A study conducted last year by the South Baltimore Community Land Trust, Johns Hopkins University, the University of Maryland, and the Maryland Department of the Environment confirmed the presence of airborne coal dust in South Baltimore, attributed to CSX Transportation's activities. This fine coal dust can penetrate deep into the lungs, contributing to various respiratory and cardiovascular diseases…"

"…Maryland must move away from reliance on the fossil fuel industry. To achieve 100% clean energy by 2035, we cannot support corporations that jeopardize the health of our people and environment…"

"…CSX Transportation was responsible for a "coal storm" that released smoke and coal dust near a South Baltimore playground…"

"…the Maryland Department of the Environment cannot permit CSX Transportation to continue endangering our most vulnerable, particularly in already underserved, primarily low-income communities of color…"

"…CSX Transportation should be required to collaborate with local activists, the community, and the Maryland Department of the Environment to address the harm inflicted and prevent further damage until its eventual closure…"

"the permit should be as tightly written as COMAR text, specific, with nothing left to doubt or predatory litigation…"

"…if coal dust is found to leave CSX Coal Pier property or easements, CSX should cease operation…until a Resume Work Order is issued by the Maryland Department of the Environment, who will determine the cause…and provide a remedy that will be in place before operation resumes…"

"…there is no possible way to build a barrier wall that would work…"

"…CSX is in clear violation of…COMAR 26.11.06.08…"

"…the clear presence of coal dust indicates that CSX's dust control measures, such as water sprays and covered conveyors have not been effectively implemented…"

"…strongly recommend there be enhanced measures to not only mitigate harm caused by coal dust entering Curtis Bay but minimize or eliminate the passage of coal dust into the surrounding community…

"…permit should consider existing harms and other sources of pollution in the general vicinity (defined by the census tract or a mileage radius) because the facility is located in an overburdened and underserved community…"

"…strongly recommend that any permit issued includes provisions to eliminate harm caused by coal dust and imposes penalties severe enough to ensure strict daily compliance…"

"…the draft permit…does not require the strongest possible pollution controls, leaving our community vulnerable to continued exposure to dangerous coal dust…lacks clear and enforceable pollution limits…need on-going, real time monitoring that the community has full access tied with strong enforceable limits…"

"…coal dust contains at least 17 toxic heavy metals and pollutants including lead, mercury, cadmium, chromium, arsenic and selenium, all of which can endanger human health, and at least six neurotoxins and five known or suspected carcinogens…prolonged exposure to coal dust via air or water can affect every major organ system in the human body, causing birth defects, heart and lung disease, and a variety of cancers…"

"…coal dust pollution has also caused fish kills and deformities in aquatic life…"

"…given CSX's past violations and ongoing pollution issues…I do not feel confident that the mitigation measures will be adequate to protect the community…"

"…rates of chronic respiratory diseases like asthma, chronic obstructive pulmonary disease, and emphysema are many times higher in Curtis Bay and other neighborhoods near the terminal…the same is true for rates of chronic heart diseases and cancers known to be caused by chronic pollution exposure…"

"…the draft permit currently does not specify what type of barrier must be constructed by CSX, there is no certainty as to whether barriers constructed by CSX under this permit will indeed protect the community and prevent air pollution…"

"…NO language within the permit that mentions the emissions of this wastewater into the navigable waters of Curtis Creek, Curtis Bay, Masonville Cove, and the Patapsco River and Chesapeake Bay…"

"…coal dust exposure is linked with emphysema, asthma, and COPD…Curtis Bay has one of the worst rates of death by respiratory illness in the state…"

"…MDE should decline to renew the permit under COMAR 26.11.02.06C(2) because…CSX has failed and will continue to fail to take reasonable precautions to prevent the spread of pollution under Part 2(f) of the permit…CSX created a nuisance through air pollution and the operation of its facility.."

“…if a permit is granted, it must include stringent and more timely conditions that effectively eliminate coal dust emissions…it must require fully covered coal piles and rail cars, as has occurred in other areas of the country…it must also include required monitoring and reporting from outside organizations rather than self-monitoring by CSX…it must hold CSX more significantly accountable for non-compliance and limited compliance…”

”…fugitive coal dust enters the community of Curtis Bay on a daily basis at a rate of every 90 minutes…

“…particulate matter (PM2.5 and PM10) and other toxic pollutants found in coal dust have been linked to respiratory diseases, cardiovascular issues, and premature mortality...”

“…in Curtis Bay, asthma-related hospitalizations are three times the national average…life expectancy is 17 years shorter than in Baltimore’s most prosperous neighborhoods…75% of students qualify as economically disadvantaged…there is no other way to describe the conditions in Curtis Bay as anything other than environmental injustice…”

“…draft permit does not require the strongest pollution controls…does not have enforceable limits…ongoing monitoring is inadequate…”

“…the inclusion of physical barriers and enhanced water application systems is a positive step toward mitigating environmental impact...recommend that the Department consider establishing more rigorous, continuous air quality monitoring at multiple points around the perimeter of the facility to ensure real-time compliance and efficacy of the dust suppression measures…engaging with community health professionals to conduct a longitudinal health impact study could provide essential data to further refine air quality management at this site…”

“...no reasonable level of danger to human health…being near the coal terminal myself, I have experienced nasal, respiratory, eye irritation, just from standing outside nearby…”

“...they have paid their fines and they have done the same thing…this barrier will not be enough…like the water spray, it will not be effective…”

“...CSX gets to generate [an emissions certification report]...about itself and turn in on a yearly basis based on their own monitoring, not outside oversight…”

“...the CSX terminal is one of the oldest and dirtiest in the United States…emits significant amounts of pollution into the air…also located in a densely populated area, which puts the health of thousands of people at risk…”

“...this coal dust is in addition to air pollutant from the biggest medical waste incinerator and we're in a shadow of BRESCO…I don't know how MDE can keep giving permits to these facilities…”

“...for many decades…I have been breathing coal dust..I wonder what the statistic is for this particular area for cancer...”

“...by allowing a polluting coal here that's known to pollute and has a history of unsafe conditions, uncontrolled explosions, you're knowingly condemning residents to its continued exposure…”

“having a coal export pier directly next to a disproportionately poor residential neighborhood is wrong…”

“...[CSX] have the ability to add a community liaison with the community association to make this better, to make this workable for CSX…”

“...do you consider the cumulative effects of multiple industries…”

“...a bunch of oil pouring out onto CSX's property…all these other corporations are using CSX's egress, which is everywhere…and the Maryland Department of Environment…do not have the right to go into CSX property..”

Support Comments Received
“CSX's Curtis Bay terminal provides a service critical to Maryland's industrial capabilities, supplying resources essential for steel production and other manufacturing needs nationwide. Furthermore, Maryland's reliance on industrial terminals like CSX's to sustain its economy is evident. Without operations like those at Curtis Bay, economic inequities in Baltimore could worsen due to lost wages and restricted access to essential resources. While environmental protection is vital, a balanced approach that considers both economic stability and sustainable practices is key. Curtis Bay Piers is vital to our state economy and must be able to continue to operate with a renewed air quality permit.”

“…CSX provides significant economic value to the state of Maryland..generate thousands of good-paying jobs and over $20 million in state and local taxes. Beyond just job creation, they have previously donated $5 million to the B&O museum in Baltimore and provided $113 million towards the Howard Street Tunnel project, which recently launched the double-stacked rail operations to and from the Helen Delich Bentley Port of Baltimore…”

“…CSX has also taken proactive steps to invest in the facility's environmental future, such as installing advanced air monitoring systems to ensure transparency and environmental safety. Rejecting its air permit renewal would not only threaten this progress but undermine a proven partnership between industry and community...”

MDE Response:

The Department lacks the legal authority or basis to shut the facility down or to deny the permit renewal application as long as requirements applicable to the facility's operation are met. The applicable air quality regulatory requirement for emissions of particulate matter is that CSX must take reasonable precautions to prevent particulate matter from becoming airborne. Other facilities may face different standards or operational constraints, including installing best available control technologies, but those requirements are not applicable in this case.

CSX is required to operate in compliance with an MDE-approved, facility wide, Fugitive Dust Plan. The renewal State Permit to Operate includes strengthened permit conditions to improve on the current plan by requiring a windscreen to minimize the transport of coal dust from any coal storage piles on the site into the surrounding community and upgrades to the existing water spray system in the rail car unloading sheds to increase overall dust control efficiency.

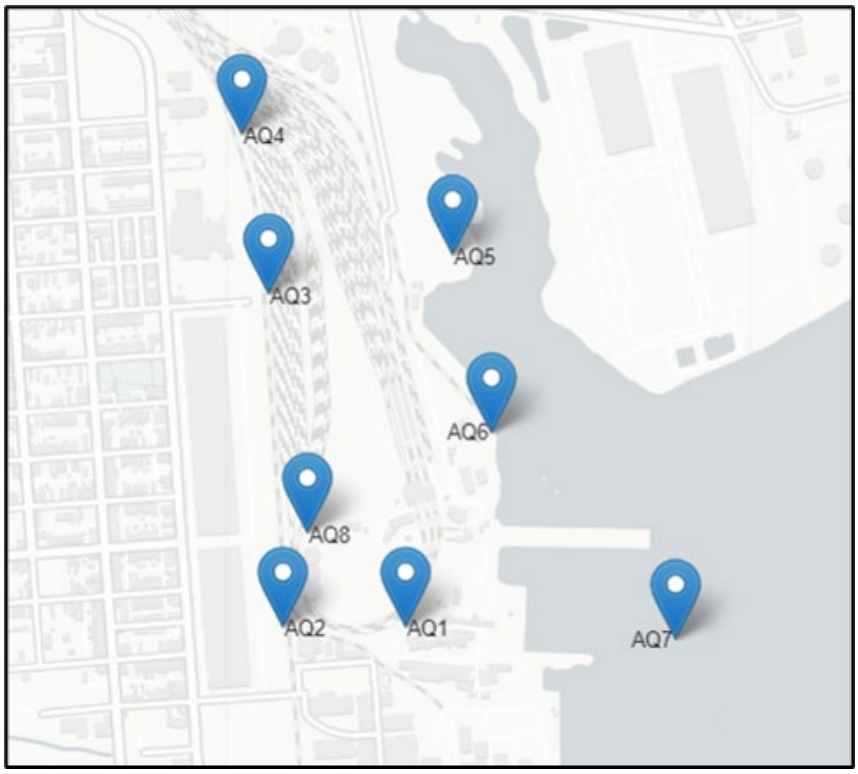
With regard to emissions of toxic air pollutants and potential health impacts, MDE's review process considers health impacts by applying established health-based standards. That is the situation for every permit application reviewed. Part of our permit review process considers whether a facility will meet federal ambient air quality standards. In this regard, impacts to public health are considered by EPA in the development of those National Ambient Air Quality Standards (NAAQS). The development is done by health experts, and the resulting standards are set to protect public health with an adequate margin for safety.

Adhering to Permit to Construct conditions, CSX configured a fenceline air quality monitoring network and began operation of this network on July 1, 2023. This network measures particulate matter (PM2.5 and PM10) at eight sites around the facility. In addition, meteorological measurements (wind speed, wind direction, relative humidity, ambient temperature) are measured at many of these sites. A combination of Federal Equivalent Method (FEM) monitors and low-cost air quality sensors comprise the network. Real time data measured is shared on this CSX webpage. A map of the eight site locations is below. Decommissioning the network cannot be done without the Department's approval.

MDE analysis of 21 months of data from the company's network found that some average concentrations of fine particulate matter (PM2.5) along the fenceline were measured at levels above the annual NAAQS of 9 micrograms per cubic meter, and were more often measured above that level when sensors were downwind of the coal storage areas. MDE cannot formally conclude that the NAAQS are being violated, because assessment of attainment against the NAAQS requires 3 years of data, and 10 of the 12 sensors in use at the fenceline network — the same type as those that were used in the community air monitoring project — tend to measure slightly higher absolute levels of PM2.5 than levels confirmed by regulatorily-prescribed air monitoring equipment. However, two of the 12 sensors are Federal Equivalent Method (FEM) regulatory air monitors, and both of those measured

average PM2.5 levels above the NAAQS when downwind of the coal storage piles and below the NAAQS when upwind of the coal storage piles.

Regardless of the NAAQS threshold, relative differences in measured pollutant levels indicate elevations due to terminal activities. Average measured PM2.5 levels were higher when the sensors were downwind of the coal storage areas at 9 out of the 12 sensor sites. Average concentrations of coarse particulate matter (PM10) were consistently below the NAAQS, but average concentrations were higher at 11 out of 12 sensor sites when those sensors were downwind of the coal storage areas. This analysis complements and confirms the findings of analysis performed by community scientists, university scientists, and MDE scientists that indicates coal dust is being transported from the facility to the community.



Sensor	Upwind Spread	PM25 Upwind Mean	PM25 Downwind Mean	PM25 p value	PM10 Upwind Mean	PM10 Downwind Mean	PM10 p value
AQ1	290-30°	**9.42**	8.39	~0	**22.33**	21.33	**0.01**
AQ2	0-90°	**9.51**	9.18	**0.05**	22.35	**28.32**	~0
AQ3	120-180°	10.01	**11.85**	~0	23.67	**29.1**	~0
AQ4	120-180°	9.88	**12.3**	~0	23.83	**28.09**	~0
AQ5A	190-230°	9.74	**12.14**	~0	22.4	**26.4**	~0
AQ5B	190-230°	7.69	**9.46**	~0	18.45	**21.47**	~0
AQ5C	190-230°	7.7	**9.81**	~0	18	**21.14**	~0
AQ5FEM	190-230°	8.78	**10.8**	~0	19.96	**25.28**	~0
AQ6	190-280°	8.25	**10.2**	~0	18.91	**22.06**	~0
AQ7	275-330°	**9.05**	8.16	~0	16.74	**16.85**	**0.8**
AQ8A	25-155°	9.25	**10.72**	~0	19.19	**24.41**	~0
AQ8FEM	25-155°	8.03	**9.81**	~0	21.21	**24.63**	~0

Upwind/downwind mean PM concentrations using Baltimore Tower meteorological data and CSX fenceline sensors. Column "Upwind Spread" shows the direction considered downwind of the coal pile for that sensor and

For Maryland facilities that emit toxic air pollutants (there are over a thousand such pollutants regulated at the state level), a facility must ensure that the level of emissions of any toxic air pollutant will not endanger public health. This is done by comparing the modeled concentration of a particular toxic air pollutant at the worst-case ground level point beyond the property line to a concentration set by the American Conference of Governmental Industrial Hygienists for that same pollutant. That organization sets their concentration at a level to protect workers in an industrial setting in which those workers are exposed to the pollutant in question daily over an eight-hour period. Under the Maryland permitting system, MDE takes that concentration and divides it by a factor of 100, developing screening levels for each toxic air pollutant that are more protective of public health. Facilities must demonstrate that an individual at the property line would not be exposed to concentrations above that protective screening level. For known and suspected carcinogenic toxic air pollutants, a facility must also demonstrate that the emissions are less than the annual average concentration that would increase a person's lifetime cancer risk by 1 in 100,000 if the person were continuously exposed to the concentration for 70 years.

Prior to the issuance of an air quality permit to construct to CSX in September 2022 related to rebuilding portions of the facility damaged by an explosion in December 2021, CSX submitted a premises wide air toxics compliance demonstration to MDE for review and approval. Premises wide toxic air pollutant emissions of coal dust, crystalline silica, chromium, cadmium, arsenic, mercury, nickel, copper, selenium, beryllium, cobalt, manganese, antimony and barium were evaluated and determined to be in compliance with applicable air toxics regulations designed to be protective of public health.

Should fugitive dust from CSX become airborne and unreasonably impact local communities and/or cause a nuisance, resulting in a violation of any provision of the permit or a direct regulatory requirement, MDE has adequate legal authority to compel a facility to take the necessary measures to address the violation and bring the operation back into compliance. Depending on the nature or severity of the violation(s), CSX would be subject to enforcement action to remedy the violation and potential financial penalties. The type of enforcement action taken and the level of any financial penalty would depend on the severity of the violation, whether it was willful and preventable, and a number of other applicable factors.

The Department recognizes the presence of 70 air emission sources in and neighboring the community of Curtis Bay, several of which are large, Title V operating permit sources and several of which are small general permit sources. Collectively, these 70 sources are believed to represent the highest concentration of air pollution sources anywhere in Maryland. Resultantly, increased compliance oversight has been put in place - increased site visits, increased inspection frequencies, and heightened complaint response - in an effort to keep a broader and more comprehensive eye on the performance of these facilities. Additionally,

should facilities violate permit or regulatory provisions, the Department strives to restore compliance as quickly as possible to minimize instances of excess pollution. Also, if a financial penalty is being sought as part of an enforcement action, consideration is given to the use of a Supplemental Environmental Project as a means to ensure a portion of any penalty dollars secured by the Department benefit the community directly.

2. Comments from Scientists - See Appendix B for Complete Comments

"…scientific findings…confirming coal dust is present in accumulated black dust in Curtis Bay and demonstrating a relation of downwind direction and coal terminal bulldozer activity with increased particulate matter (PM) and black carbon (BC) air pollution burden in Curtis Bay…"

"If the permit is renewed and coal terminal operations do continue, conditions added to the permit should be considered to mitigate black dust, coal dust, and air pollution burden and associated nuisance, health, and quality of life impacts in Curtis Bay. These conditions could include, but are not limited to:

- Full enclosure of the coal terminal coupled with strategies to mitigate windblown and mechanically generated dust exposure via changes in the operating practices at the coal terminal;
- Expansion of publicly accessible reporting of time-resolved information about coal terminal activity patterns;
- Expansion of publicly accessible real-time air pollution burden monitoring (onsite and off-site) to include not just PM, but also black carbon, CO, NO, NO2, VOCs, CH4, and settled dust characterization to provide timely and ongoing assurance that mitigation strategies are protective of neighboring communities."

MDE Response:

The Department agrees there is factual and adequate evidence that coal dust is being transported from the facility to the community. The Department's analysis of data from the facility's fenceline network complements that finding conveyed in these comments and published in scientific literature (see Aubourg, M.A., Livi, K.J., Sawtell, G.G., Sanchez-Gonzalez, C.C., Spada, N.J., Dickerson, R.R., Chiou, W.A., Kamanzi, C., Ramachandran, G., Rule, A.M. and Heaney, C.D., 2024. **Use of electron microscopy to determine presence of coal dust in a neighborhood bordering an open-air coal terminal in Curtis Bay, Baltimore, Maryland, USA**. *Science of The Total Environment*, 957, p.176842. https://doi.org/10.1016/j.scitotenv.2024.176842)

The question as to the amount of coal dust in terms of tons per year reaching the community or its concentration remains unanswered based on available monitoring methods. Coal dust is a constituent of particulate matter. The Department also agrees that fine particulate matter measured within the

community are at concentrations greater than the national ambient air quality standard for that pollutant at certain times and at certain locations. The toxic air pollutant constituents within coal dust, regardless of its mass or its concentration within ambient air, and the ability of fine particulate matter to cause health impacts at concentrations above the national ambient standard, form a basis on which the Department is imposing additional dust control measures in the operating permit to limit coal dust from leaving the terminal. The need for additional controls is further supported by the location of CSX in relation to the community and to other nearby major air pollution sources that individually and collectively impact local air quality.

The renewal State Permit to Operate includes strengthened permit conditions to improve on the current permit and fugitive dust management plan by requiring a windscreen to minimize the transport of coal dust from any coal storage piles on the site into the surrounding community and upgrades to the existing water spray system in the rail car unloading sheds to increase overall dust control efficiency.

3. Comments from CSX - See Appendix C for Complete Comments

"...CSX does not support draft conditions D(1)-D(5) and strongly urges MDE to remove these conditions from the final permit…"

"...CSX is the first facility in Maryland to install and operate a fenceline monitoring system for particulate matter…system monitors PM10 and PM2.5 continuously at eight locations along the perimeter of the Terminal and publishes the data in real time to a public website…fifteen months of fenceline monitoring data prove that particulate matter concentrations at the Terminal's fenceline are below 24-hour primary and secondary National Ambient Air Quality Standards ("NAAQS") set to protect sensitive individuals, including asthmatics, children, and the elderly…"

"Curtis Bay Piers is classified as a minor source of particulate matter emissions…CSX is required by state law to take reasonable precautions to prevent particulate matter from becoming airborne…[CSX] controls fugitive emissions through a sophisticated wet suppression system that uses real time weather data, covered conveyors, dumper sheds, telescoping chutes, and a southern boundary wind fence…no air permit violations in the last 25 years relating to the discharge of fugitive dust from the Terminal's coal storage areas…"

"Curtis Bay Piers has operated and continues to operate in compliance with its PTO, MDE-approved Fugitive Dust Control Plan, and the additional operating and monitoring conditions in the September 2022 Permit to Construct. A 2022 analysis of toxic air pollutant ("TAP") emissions from the Terminal done in connection with the 2022 PTC demonstrated that all TAP emissions, including coal dust and silica emissions, are at levels that are protective of public health."

"CSX objects strongly to MDE using the Collaborative Report as the basis for permitting decisions at Curtis Bay Piers. Permitting decisions based on the

Collaborative Report are arbitrary and capricious, and not in compliance with state and federal law."

"Maryland law does not provide the public an opportunity to participate in the renewal of a state PTO or require an environmental justice screening…MDE has facilitated extensive public participation in this permit renewal process…this permit renewal process and approach to the control of particulate matter emissions from Curtis Bay Piers is also inconsistent with MDE's treatment of other facilities located in environmental justice areas, including major sources of non-attainment criteria air pollutants…"

"...The Draft PTO Fact Sheet discusses the community's environmental justice concerns, including concerns about disproportionate exposure to particulate pollution, yet fails to acknowledge that the fenceline monitoring system has been operational for over a year or that near-real time data is posted on a public website (CSXCurtisBayFacts.com) to provide accurate information to the public about particulate matter concentrations at the Terminal's fenceline…"

…"MDE's refusal to act consistent with federal and state law is harming CSX's ability to conduct operations at Curtis Bay Piers, unreasonably burdening its rail carrier operations, and discriminating against it as a rail carrier. For these reasons, the draft permit conditions in Part D interfere with rail operations in violation of the Interstate Commerce Commission Termination Act ("ICCTA"), which preempts state permit requirements that unreasonably burden rail operations or discriminate against rail carriers…

"...Any requirement to enclose the coal storage piles at Curtis Bay Piers would be inconsistent with MDE's treatment of other material handling facilities…"

"...CSX committed to implementing numerous enhancements to its dust control practices through a revision to the Terminal's Fugitive Dust Control Plan, including:

(1) Lowering the dust suppression system's wind speed trigger point from 12 mph to 8 mph.
(2) Enhanced record keeping practices around street sweeping and water truck usage.
(3) Installation of an atomized water mist dust suppression at the railcar dumper buildings
(4) A commitment to install a wind fence along a portion of the western property boundary to further reduce wind action at the Terminal

"...The controls MDE now proposes would require CSX to undertake complex and costly construction projects, are technically and economically infeasible, and depart significantly from the monitoring and recordkeeping requirements typically included in a state PTO for a minor particulate matter source…"

"...Constructing large-scale storage silos in place of the current outdoor coal storage area is akin to a full-scale rebuild of the Terminal and would require a multi-year phased construction project. The cost of such a project would be hundreds of

millions of dollars—roughly equal to the cost of building an entirely new coal transloading facility…"

"...a 100-foot steel frame wall would cost up to $120 million just to design and construct…"

"...The cost of a king pile and sheet pile wall would be approximately $98.6 million…"

"...similar challenges with constructing a semi-permeable structure—which it is not clear would even satisfy the draft Part D conditions—and estimated the cost to be $83.9 million…"

"...a dome 'entails significant temporary and permanent impacts on facility operations,' would require existing infrastructure 'to be redesigned and relocated,' would take longer than 18 months to construct, and would likely cost well over $100 million…"

"...emissions from loaded railcars are considered de minimis (or zero) and coal freight shippers must mitigate for coal dust and apply 'in-transit dust suppressant' or 'effectively mitigate for coal dust under all weather conditions'. ."

"…the movement of railcars onto the CBP property at low speeds is not causing fugitive dust emissions beyond the terminal's boundary…"

"...the installation of a water spray system at the property boundary is unnecessary, would create operational challenges, additional environmental consequences, and would result in little to no decrease in fugitive dust emissions at a significant expense…"

MDE Response:

The Department acknowledges that CSX Transportation installed a fenceline network as required by the Permit to Construct issued by the Department in September 2022.

The Department's analysis of the first 21 months of data from that network indicates that particulate matter concentrations are elevated by facility operations, and in some cases may be elevated above the annual NAAQS for PM2.5 when measured downwind of the facility.

That analysis complements and confirms findings from scientific assessments of pollution levels and deposited dust in the community that indicate coal dust is being transported from the facility to the community, providing a factual and adequate basis for the Department to act.

Regarding public participation, though Maryland law does not require State Permits to Operate to undergo public participation, the Department has the

authority to determine if public participation should be undertaken on any departmental action. Given the uniquely close proximity of the terminal to the community, with fewer than 900 feet separating the edge of the storage piles and the nearest residential building, and its potential impact to residents and the number and type of major sources neighboring the community, the Department determined there was a compelling need for public input. Additionally, recent scientific findings have confirmed that additional measures should be taken to mitigate the facility's impact on the public. As such, the public should have a voice in the development of the operating permit.

The Department acknowledges that there is significant uncertainty surrounding cost estimates for a physical barrier that fully encloses the storage areas at the facility, and it may be cost prohibitive.

The Department estimated the cost of total enclosure, namely a domed structure, to be around $50 million, based on discussions with a provider of such structures and approximations of structure size and operational considerations. An estimate suggested by a citizen's group proposed the cost of such a structure to be between $10 and $17 million. Both the Department's and the citizen's estimates were based on limited information regarding specific site characteristics, such as subsurface conditions affecting foundation constraints and pollution control and safety requirements needed when enclosing an active coal storage operation. Neither of these two enclosure options considered whether an enclosure would negatively impact the terminal's coal handling capacity.

In consideration of the cost issues raised and in recognition of potential operational impacts, the final permit language requires that the facility, at a minimum, surround the storage areas or the facility as a whole with windscreens, linked to coal pile height to minimize the transport of dust from the facility to the community. From a qualitative perspective, this is a lower cost option that the Department contends will not meaningfully impact operations or terminal capacity and still provide a dust control benefit beyond levels achieved using current dust control measures.

In consideration of the comments regarding rail car watering at the property boundary, the renewal State Permit to Operate does not include that provision.

The renewal State Permit to Operate includes strengthened permit conditions to improve on the current permit and fugitive dust management plan by requiring windscreens to minimize the transport of coal dust from any coal storage piles on the site into the surrounding community and upgrades to the existing water spray system in the rail car unloading sheds to increase overall dust control efficiency.

4. Comments from the Environmental Integrity Project, Community of Curtis Bay Association and Other Community Groups and Advocates - See Appendix D for Complete Comments

"...MDE Should Deny the Application for a Renewed State Operating Permit for the Terminal…"

"...In the Alternative, MDE Must Revise the Draft Renewal Permit to Impose Stronger Permit Conditions…"

"…MDE Must Revise the Draft Permit to Require Full Enclosure of the Coal Storage Piles…"

"…Full enclosure is technically feasible…the cost of full enclosure is reasonable…"

"…In the Alternative, At Minimum MDE Must Require Engineered and Optimized Wind Screens Surrounding the Coal Piles…"

"...MDE Must Require CSX to Report VOC Emissions from Storage and Handling of Coal and to Report Dockside Marine Vessel Emissions. MDE Must Use this Information to Determine Whether CSX Must Obtain a Major Source Operating Permit for the Terminal…"

MDE Response:

The Department lacks the legal authority or basis to permanently shut down the facility or to deny the permit renewal application. To meet applicable air quality requirements, CSX must take reasonable precautions to prevent particulate matter from becoming airborne and must demonstrate that emissions of toxic air pollutants will not unreasonably endanger human health. In addition, CSX cannot create a nuisance or odor.

The Department acknowledges the comments that the facility's demonstrated impacts on the community provide sufficient basis for additional permit requirements.

As noted above, the permit requires windscreens instead of full enclosure due to the cost of full enclosure and potential impacts on the terminal's operations and capacity.

With regard to VOC emissions from storage and handling of coal, methane and ethane are specifically excluded from the federal definition of volatile organic compounds (VOC) under 40 CFR §51.100(s) and are not considered regulated VOC pollutants under the Clean Air Act.

For VOC other than methane and ethane, there is little evidence demonstrating that VOC is emitted from coal while it is stored or transferred. A review of air permits issued to coal terminals in other states, such as Ohio and Virginia, consistently show there are no VOC requirements or regulations applicable to coal storage or transfer because these operations are not considered sources of VOC emissions. In addition, a comprehensive study commissioned by the New South Wales EPA measured emissions, including VOC emissions, from a number of

industrial sources - coal seam gas operations, landfills, wastewater treatment plants, agriculture (a rice farm and cattle feedlot), coal mining and natural sources. (https://www.epa.nsw.gov.au/sites/default/files/methane-volatile-organic-compound-emissions-nsw-3063.pdf)

The study found that ambient concentrations of VOCs measured at that country's Rix Creek coal mine site were generally low in most VOCs compared to semi-rural and the higher intensity land-use sites. Some were below the limits of detection. Those hydrocarbons that were identified inferred a diesel emissions profile, which is likely to be consistent with the machinery operating at the mine.

The CSX facility uses diesel locomotives to transport coal to and from the facility and other mobile equipment to move coal on the storage piles. Additionally, while CSX accounts for particulate matter emissions during transfer of coal to marine vessels docked at the facility, the marine vessels are not owned or operated by CSX and any engine emissions from marine vessels docked at the facility are not included in the facility's potential emissions. All of these operations are mobile sources that are not directly regulated by MDE; engine standards for mobile sources are set by the Federal government.

5. Comments from the Maryland League of Conservation Voters (Maryland LCV) - See Appendix D for Complete Comments

"...The residents of Curtis Bay, where the coal export facility is located, and surrounding communities are overwhelmingly in favor of denying this permit. Their testimonials about living next to a coal export facility that handles seven million tons of coal per year include health impacts, economic impacts, and quality of life impacts…"

"...Taking an environmental justice approach would prioritize requests of the affected community…"

"...In Maryland law, 'environmental justice' means equal protection from environmental and public health hazards for all people regardless of race, income, culture, and social status. There is a disconnect between this definition and the way MDE approaches permitting, which assesses one facility (and sometimes one pollutant) at a time…"

"...Curtis Bay is the location for several regulated polluting facilities…as well as being bordered and intersected by major roadways trafficked by diesel trucks regulated under a different system than stationary pollution sources. While any one facility may be in compliance with state and federal regulations, when there are so many sources in close proximity, the cumulative impact is much greater and higher than safe exposure levels. Without considering these cumulative measures, MDE is falling short of achieving the state's definition of environmental justice…"

"...In December 2023, a…study…was released by the Community of Curtis Bay Association, the South Baltimore Community Land Trust, Johns Hopkins University, the University of Maryland, and MDE and confirmed the presence of coal dust in the air of the South Baltimore community of Curtis Bay…"

"...At least in part as a result of the concentration of pollution, and according to MDE data, Curtis Bay has the highest EJ score percentile (distribution across Maryland) in the state…"

"...Living in an area with such a high EJ Score increases residents' vulnerability to additional health and environmental stressors. Living in an overburdened and underserved community in Maryland with a high EJ score should merit additional considerations in state permitting…"

"...Maryland has the most ambitious short term climate goals in the nation… MDE should recognize the climate implications of exporting coal around the world…"

"...The health impacts of PM 2.5 are well documented and include premature mortality, heart and lung disease, and asthma attacks. Children and older adults, especially with preexisting lung conditions, are particularly vulnerable to the effects of exposure to PM. A recent study examined the connection between coal storage and handling and increased air pollution, demonstrating that a 10% increase in PM 2.5 from coal stockpiles causes a 1.1% increase in the average adult and a 3.2% increase in infant mortality rates. The study also looked at the cost of local air pollution, finding that a one ton increase in coal stockpiles results in local air pollution costs of $197. These costs are borne by nearby community members.…Any permit should include considerations of health burden and economic impacts to communities…"

"...After a 2021 explosion at the CSX facility, CSX entered into a settlement to pay the state $15,000 and the South Baltimore Community Land Trust $100,000…fees must be set at a level that deters noncompliance…"

MDE Response:

The Department recognizes that the Curtis Bay community is an area that has a high score in the MDEnviroScreen Tool, has a number of major pollution sources and that certain populations within the community are vulnerable to pollution exposure. Because of this the Department did view CSX's continuing operation through an EJ lens, which, when factoring in the Department's available authority to regulate pollution, led the Department to impose dust control measures in the permit that go beyond what was required in the prior operating permit. Specifically, the permit requires CSX to install windscreens as high as and surrounding the coal piles, with some exception on the latter requirement for vehicle and railcar access and fixed equipment placements. The screen lessens the potential for coal dust to be transported from the piles to the community. The permit also requires

enhanced water suppression to be installed in the coal dumping sheds. Additionally, the Department notes the company's commitment to incorporate a lower wind speed threshold for automatic activation of sprayers in the upcoming revisions to the facility fugitive dust plan, which will further reduce PM transport.

It is true that the permit review process takes a facility-by-facility approach. Except for situations where very large emission sources are seeking a permit, which requires emissions from other large sources to be considered in the review process, the regulatory and statutorily based authorities granted the Department, dictate the facility-by-facility approach to permitting.

Under our authority, the Department's review process considers broad health impacts rather than health impacts based on specific health conditions and is unable to consider economic impacts to the surrounding community. The impacts to public health are considered by EPA in the development of National Ambient Air Quality Standards. The development is done by health experts, and the resulting standards are set to protect public health with an adequate margin for safety. The Department's role is to ensure that Maryland meets those standards, and this is done through the state's ambient air quality network.

The coal terminal's impact on climate change as an entity supporting the continued use of coal throughout the world is beyond the scope of the Department's authority regarding this particular facility's permit. To combat the impacts of climate change, the Department has a plan to reduce statewide greenhouse gas emissions by 60% by 2031 by targeting sectors that constitute the largest share of greenhouse gas emissions in Maryland.

The plan to reduce statewide greenhouse gas emissions includes a variety of regulatory measures, incentive programs, and transportation related improvements to reduce emissions across several broad sectors.

Many of these measures, especially those that apply to businesses, will take the form of new regulations that drive emission reductions for an entire sector through, for example, the use of alternative fuels, clean power, zero-emission heating equipment, and the implementation of new greenhouse gas reduction standards for large buildings.

Other reductions will accrue through implementation of new requirements applicable to the purchase of electric vehicles, both cars and trucks, and through the offering of incentives to increase electric vehicle purchases, including school buses, and the equipment to charge them.

Programs to incentivize home electrification will provide additional reductions, along with reducing methane emissions from Maryland's landfills and natural gas infrastructure, the planting of 5 million trees and reducing vehicle miles traveled statewide.

The full state plan to reduce greenhouse gas emissions can be found here: https://mde.maryland.gov/programs/air/ClimateChange/CPRP/Pages/Overview.aspx

The Department supports the philosophy that penalties should be set to help deter violations, it is important to note however, that the Department asserted five air pollution related violations for the explosion, which carry a potential maximum civil penalty of $25,000 per violation per day, for a maximum total of $125,000.