

**ANNUAL REPORT TO THE JOINT SUBCOMMITTEE STUDYING MEASURES TO
REDUCE EMISSIONS FROM COAL-CARRYING RAILROAD CARS PER SENATE
RESOLUTION NO. 257 AND HOUSE JOINT RESOLUTION NO.25**

Submitted by
Norfolk Southern Corporation
650 West Peachtree Street NW
Atlanta GA 30308

March 2024

In accordance with the 1997 Virginia Senate Joint Resolution No. 257 and 2020 House Joint Resolution No. 25, Norfolk Southern Corporation (Norfolk Southern) summarizes the efforts to identify and mitigate fugitive coal dust emissions from its rail corridors and facilities in the Commonwealth during the calendar year 2023. Effective July 1 2023, Norfolk Southern updated its Conditions of Carriage (tariff) for applicable coal to address longstanding expectations for its customers to use loading measures that reduce wind erosion during transit.

2023 Review

Performance Monitoring Plan

Norfolk Southern has implemented a Performance Monitoring Plan as its primary tool to monitor coal dust from its railway company subsidiary's operations. The major components of the Performance Monitoring Plan currently implemented in Virginia are:

- Trackside Monitoring – Altavista, VA
- 1-800 Dusting Report Line
- Community Air Quality Monitoring at Lamberts Point in Norfolk, VA

The multi-component approach established by Norfolk Southern is designed to provide continuous and unbiased feedback on the performance of its dust control program with the Trackside Monitor and 1-800 Dusting Report Line. Norfolk Southern will continue its efforts to identify significant sources of in-transit dust emission via continuous monitoring. Norfolk Southern will also continue to monitor the ambient air quality at Lamberts Point in Norfolk, VA.

Trackside Monitoring – Altavista, VA

The Trackside Monitor at Altavista, VA monitors both trains bound for export through Lamberts Point as well as those destined for regional domestic coal consumers. The Trackside Monitor operates continuously and uses an autonomous system to evaluate the amount of dust generated by individual trains passing the site. By analyzing a large dataset collected by the Trackside Monitoring system, Norfolk Southern has continued to identify the most significant contributors of in-transit dust emission to engage in cooperative emission reduction efforts. Norfolk Southern also continued to improve the analytical tools for Trackside Monitoring system taking advantage of its large database. Recent efforts to characterize the dusting level at its Altavista, VA monitoring site not only allowed Norfolk Southern to closely monitor trends, but also establish a reference based on recent data to capture episodic anomalies which can provide constructive feedback to source mines on their continued participation in dust mitigating efforts.

1-800 Dusting Report Line

Norfolk Southern continues to operate a call line (1-800-621-0772) to receive reports on dusting events and coal dust related complaints. The call line number is available to public via Norfolk Southern's website. Since 2020, Norfolk Southern also continues to operate a real-time reporting dashboard which has allowed for prompt attention to the complaint calls by engaged personnel. In 2023, there were no calls received on the Dusting Report Line from Virginia residents. Due to the absence of complaints in Virginia, no public meetings were held in 2023.

Lamberts Point Community Air Quality Monitoring

The Lamberts Point Community Monitoring Program monitors airborne particulates in the area surrounding the Lamberts Point coal pier in Norfolk, VA using a PM₁₀ sampler. Norfolk Southern continues to monitor the air quality in the area by operating a PM₁₀ sampler located at the Hampton Roads Sanitation District's (HRSD's) wastewater treatment facility adjacent to the pier. The sampling is regularly conducted every six days, consistent with U.S. Environmental Protection Agency (EPA) protocols for particulate sampling schedule, and the sampler is calibrated once per quarter. As in the past, the 24-hour National Ambient Air Quality Standard (NAAQS) of 150 µg/m³ was not exceeded at any time in 2023. The average PM₁₀ concentration reported at the site in 2023 calendar year was 20.62 µg/m³. Norfolk Southern has also developed and implemented a dashboard service where an alert would be received based on Air Quality Index (AQI) if PM₁₀ concentration exceeded a category labeled 'Unhealthy for Sensitive Groups' (AQI color code Orange), effectively setting a threshold lower than the NAAQS. However, no alert was received in 2023 as no reported values exceeded such threshold.

Since November 2022, a second PM₁₀ monitor has been in operation near the Administration Building at Lamberts Point. The average PM₁₀ concentration reported at the site in 2023 calendar year was 15.48 µg/m³. In addition to the PM₁₀ monitor, a weather station was installed in the same area. This enhancement in the Lamberts Point Community Monitoring Program has provided SSE boundary observations to augment those being obtained at the HRSD facility on the northern boundary. Its proximity to the main rail line serving the coal terminal is an additional benefit of this new monitoring location.

Norfolk Southern has conducted engineering studies to determine the feasibility and cost effectiveness of covering the rotary dumpers at Lamberts Point. The engineering studies concluded that it is impractical to enclose the structures due to the age and design of the rotary dumpers, along with the combustible dust hazards presented by enclosing the equipment. In addition, because the average PM₁₀ readings have been and continue to be an order of magnitude below the U.S. EPA National Ambient Air Quality Standard, the benefits of enclosing the dumpers are far outweighed by the costs. Pursuant to an agreement in resolution of a lawsuit, Norfolk Southern understands that BNSF Railway is continuing a study of coal car covers. Norfolk Southern will review the results of that study when they are available.