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Norfolk Southern Corporation
Environmental Protection
110 Franklin Road, S.E.
Roanoke, Virginia 24042-0013
540 981-4456

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C. R. McDaniel
System Director

January 16, 2002
1-9-2-10-5-Coal Committee (VA)

JW 1/23/02

Ms. Jane Workman
Virginia Department of Env. Quality
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

Dear Ms. Workman:

Enclosed please find Norfolk Southern's "2001 Annual Report to the Joint Subcommittee Studying Measures to Reduce Emissions from Coal-Carrying railroad Car." The report is submitted as required by Virginia Senate Joint resolution No. 257.

The report outlines Norfolk Southern's coal dust control initiatives performed in 2001, and our proposed actions to continue the dust monitoring in 2002 as committed to the Senate Joint Committee.

If you have any comments or questions after reviewing the report, please contact my office at (540) 981-4456 or Mr. Bruce Wingo at (804) 649-2485.

Sincerely,

C. Russell McDaniel
System Director Environmental Protection

Enclosure

Cc: W. Bruce Wingo – NS Office of Public Affairs, Richmond

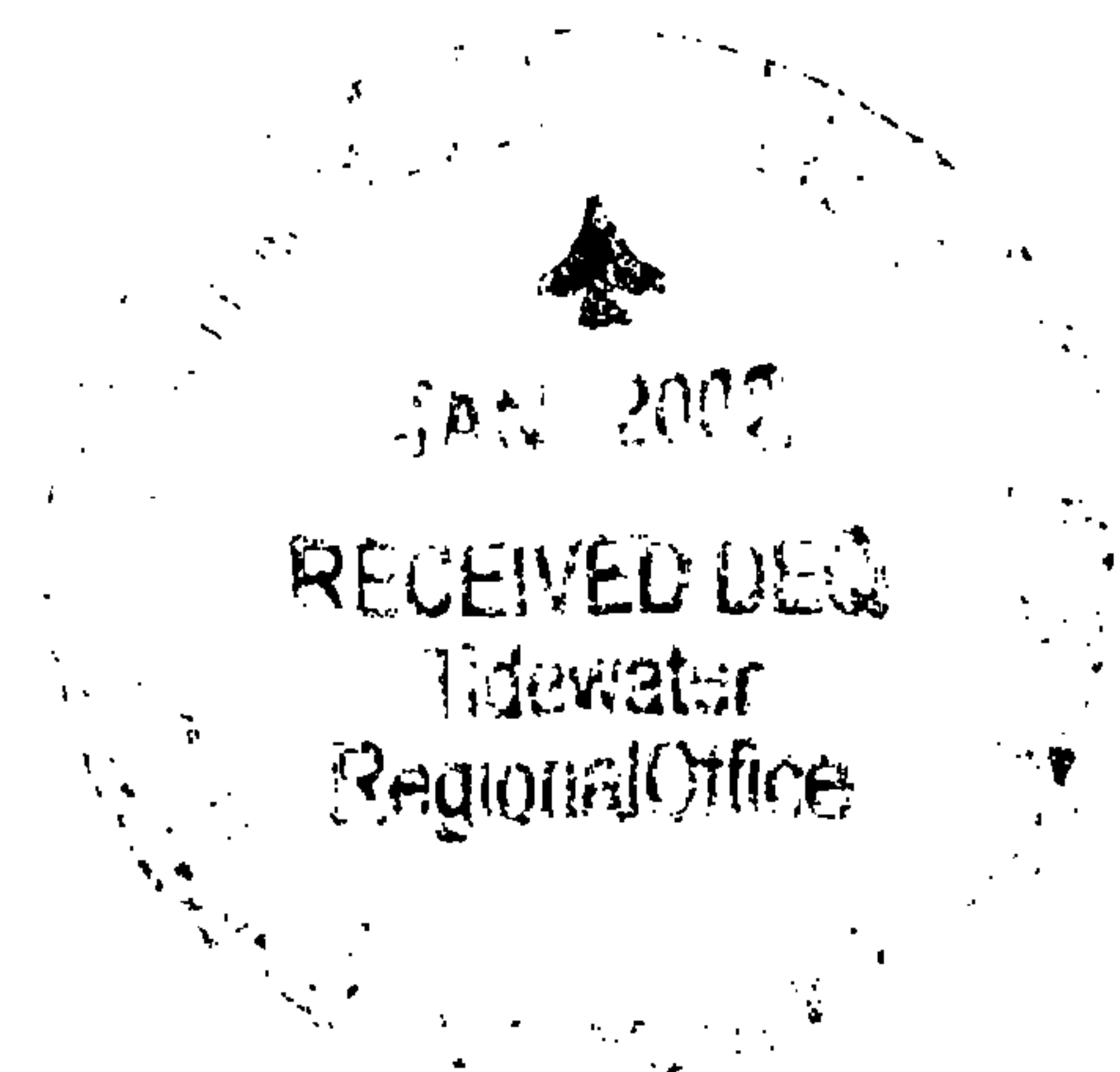


**ANNUAL REPORT TO THE
JOINT SUBCOMMITTEE STUDYING MEASURES TO REDUCE
EMISSIONS FROM COAL-CARRYING RAILROAD CARS
PER SENATE RESOLUTION NO. 257**

Submitted by

Norfolk Southern Corporation
Environmental Protection Department
Roanoke, VA

January 2002



Summary of Key Accomplishments in 2001

- Norfolk Southern's Performance Monitoring Plan remains fully implemented.
- The Trackside Monitors near Windsor, VA and Altavista, VA continue to monitor trains headed for the Tidewater area providing timely and valuable feedback to the mines participating in Norfolk Southern's coal dust reduction program.
- The 1-800 dusting report line continues to be available and is being used to record complaints from persons and businesses located in the rail corridors through which Norfolk Southern transports coal. There has been a significant reduction from the prior year in the number of complaints from the monitored corridor.
- Monitoring of TSP and PM-10 near Lamberts Point in Norfolk, VA continues to demonstrate compliance with DEQ ambient air quality standards.
- Norfolk Southern provides timely feedback to the coal mines served including the relative success or failure of their preventive measures to reduce fugitive emissions.
- Norfolk Southern continues to work with those mines that continue to be identified as not meeting the Performance Monitoring Plan's dust control standards by conducting periodic audits of the mines to ensure optimal performance.

In accordance with the 1996 Virginia Senate Joint Resolution No. 257, Norfolk Southern (NS) summarizes the efforts to identify and mitigate fugitive coal dust emissions from its rail corridors and facilities in the Commonwealth during the calendar year 2001. This report illustrates Norfolk Southern's compliance with the resolution and our commitment to protect the environment.

2001 Review

Performance Monitoring Plan

The Performance Monitoring Plan is NS' strategy for monitoring the effectiveness of coal treatments by participating mines, and for identifying additional mines that may be encouraged to participate in the dust control program. The major components of the Performance Monitoring Plan currently implemented are:

- Trackside Monitor -- Isle of Wight County, VA
- Trackside Monitor – Altavista, VA
- 1-800 Dusting Report Line
- Community Air Quality Monitoring
- Rail Transport Emissions Profiling System
- Seasonally Adjusted Rail Transport Dustiness Index

The multi-component approach established by NS is designed to provide continuous and unbiased feedback on the performance of its dust control program with the Trackside Monitors and 1-800 line. The Rail Transport Emissions Profiling System and Seasonally Adjusted Rail Transport Dustiness Index, when called upon, serve to generate additional, quantitative data needed by Norfolk Southern and its customers to decide on the proper course of action to reduce emissions that have been detected.

Norfolk Southern will continue the Performance Monitoring Plan in 2002. Norfolk Southern will, as it has done in the past, work to expand mine participation should Rail Transport Emissions Profiling System, the Trackside Monitors, the Seasonally Adjusted Rail Transport Dustiness Index, or the 1-800 Dusting Report Line identify significant new sources. Norfolk Southern will also continue to participate in the evaluation of advanced dust control agents for use in the coal dust treatment program.

Trackside Monitor -- Isle of Wight County

The Trackside Monitor near Windsor, VA in Isle of Wight County, is designed to detect coal dust emissions from trains destined for Norfolk and NS' Lamberts Point Terminal. The Isle of Wight location was chosen since it permits monitoring of treated coal shipments after their exposure to more than 300 miles of transport. NS designed this monitor for two primary purposes:

- 1) To provide continuous monitoring of the effectiveness of dust mitigation treatments being performed by participating load-out facilities; and
- 2) To identify additional coals to be considered for inclusion in the coal car treatment program.

The Trackside Monitor is collecting data from both the northern and southern sides of the track. A tower on the north side holds a laser sensor that is aligned with a detector mounted on the south side tower. The laser data provides redundancy in the dust detection system that is valuable in discriminating between dusting and non-dusting coal shipments.

For each dusting train that passes the Trackside Monitor, a report is developed by NS. Each mine's shipment is graded (A – E) by NS' consultant, Simpson Weather Associates, and a summary table identifies those shipments that are the most likely responsible for the dust signal as well as those shipments that appear to have no coal dust emissions. A second coal consultant, Marshall Miller and Associates, then uses the individual mine's report card to communicate the level of dust control being achieved.

Trackside Monitor -- Altavista

A second Trackside Monitor is now deployed in Altavista, VA. In response to complaints from that area, NS has upgraded the equipment to be permanent and to have the same capability as at the Isle of Wight installation.

The Trackside Monitor at Altavista, VA monitors both coals bound for export through Lamberts Point as well as those destined for regional domestic uses. Thus, the data collected at this site have identified mines for

participation in NS' dust mitigation program that would not have been seen by the Isle of Wight Trackside Monitor.

In 2001, the Isle of Wight and Altavista Trackside Monitors reported 82% of the passing trains clearly produced little to no measurable dust emissions. This is an improvement from the past few years when this number was between 75 and 80%.

1-800 Dusting Report Line

The total number of Virginia calls to the 1-800 Dusting Report Line dropped from 22 in 2000 to 2 in 2001. The data from the Trackside Monitor sites suggest a modest reduction in the number of dusting trains and a somewhat greater reduction in the magnitudes of the detected dust signals.

The combination of 1-800 reports and the details provided through the Trackside Monitor and subsequent train tracking efforts provides the information needed to visit and encourage the responsible mines to participate in the NS dust mitigation program.

Lamberts Point Community Air Quality Monitoring

The Lamberts Point Community Monitoring Program monitors airborne particulate in the area surrounding the Lamberts Point coal pier in Norfolk. It consists of three TSP monitors and one PM-10 monitor in the neighborhood surrounding Lamberts Point. TSP monitors are located at the Virginia Initiative Project's waste water treatment facility adjacent to the pier, Taylor Elementary School in the West Ghent neighborhood, and the Health Sciences building on Old Dominion University's campus. The PM-10 monitor is located at the ODU site. No exceedances of the DEQ ambient air quality standards were recorded in 2001.

Norfolk Southern Rail Emissions Study

NS continues to have access to the Rail Transport Emissions Profiling System developed during the Rail Corridor Study. The Rail Transport Emissions Profiling System is attached to the rear sill of a loaded coal car and records numerous parameters including wind speed, rainfall, coal temperature, and dust emissions during transit. The Rail Transport Emissions Profiling System is primarily used to:

- 1) Gather data during coal transport to demonstrate to every mine that it is in its economic interest to reduce material loss from coal shipments; and
- 2) Periodically test the effectiveness or diagnose detected failures of dust mitigation techniques being used on coal in transit.

Anticipated 2002 Program Improvements

NS continues to fund improvements in the tools needed to execute its Performance Monitoring Plan. The focus in 2002 will be on further automation of the train tracking by providing improved access to NS's data bases including the new Coal Transportation Management System.

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The following pages contain the Optical Character Recognition text of the preceding scanned images.

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Norfolk Southern Corporation
Environmental Protection
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Roanoke, Virginia 24042-0013
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