

BNSF Railway Statement on STB Coal Dust Decision **Coal Dust Frequently Asked Questions**

Why is BNSF concerned about coal dust in the Powder River Basin?

Since 2005, BNSF has been at the forefront of extensive research regarding the impacts of coal dust escaping from loaded coal cars as they depart from the Powder River Basin (PRB). From these studies, BNSF has determined that coal dust poses a serious threat to the stability of the track structure and thus to the operational integrity of our lines in the Powder River Basin. As described in more detail below, our regulating agency, the Surface Transportation Board (STB) has confirmed that coal dust is a harmful contaminant of rail ballast. Tests have shown that dusting events from untreated cars occur with the most frequency close to the mine loading points in the PRB and materially decrease as the railcars move further from the PRB.

BNSF does not believe that any commodity should be permitted to escape from its shipping container and foul the railroad's roadbed or surrounding areas. Shippers are responsible for securing their freight for transit by rail. BNSF continues to work with the coal shipping community to identify measures that can be taken by shippers at origin to minimize the release of coal dust from loaded coal cars while they are in transit at all points on BNSF's system.

What can shippers do to effectively mitigate the release of coal dust from loaded coal cars?

Studies and experience have demonstrated that shippers can take steps in the loading of coal cars that will substantially reduce coal dusting events. BNSF has been conducting scientific studies of coal dust for several years that have involved collecting and analyzing data on coal dust releases. BNSF has retained and worked closely with engineering consultants to design monitoring devices for coal dust releases, to implement protocols for measuring coal dust from particular trains, and to analyze the results of field tests. These studies have shown that there are practicable ways to substantially reduce coal dust releases in the PRB.

In addition, coal dust suppression measures have been used extensively in areas outside the PRB. The most common measure has been the application of a dust suppression topper agent (e.g., surfactant) to the coal shipment at the time of loading. Topper Agents have been used with positive results for several years in Canada, in the eastern United States, in Australia, and most recently in China.

What specific measures can shippers take to address the release of coal dust from trains being loaded in PRB?

First, BNSF has found that coal dust releases can be partially reduced by loading coal cars with a modified loading chute. Use of a proper loading chute will produce a rounded contour of the coal in coal cars that eliminates the sharp angles and irregular surfaces that can promote the loss of coal dust when cars are in transit. BNSF has established a load profile template that is currently being used by PRB coal mines. While loading coal cars in conformance with BNSF's load profile template reduces the amount of coal dust exiting the coal cars, shippers must take additional measures, such as the application of a topper agent or surfactant to the surface of the loaded coal to effectively mitigate the loss of coal dust during transit.



Load Profile Template

Second, in addition to the loading profile, topper agents can be sprayed over the loaded coal to keep the coal in place during transit. Other coal dust reduction technologies are being explored and developed. For example, tests are currently being carried out on a compaction technique that could be applied during the coal loading process. Topper agents and other available measures must be applied by the shipper or its mine agent at the mine origin. It is not feasible for BNSF to apply a topper agent while the loaded coal train is on rail property because of its disruptive impact on high-volume PRB rail lines and on the reliability and efficiency of PRB operations. The most efficient and effective place to apply the topper agent is at the mine in connection with the loading of coal into the rail car. BNSF is confident that as coal shippers begin to implement measures and search for the most cost-effective approaches, the market will respond with increasingly effective technologies.

How do you know that these measures will be effective in the PRB?

Since 2005, BNSF has been conducting studies in the PRB of coal dust and various measures available to reduce the release of coal dust from loaded cars. These studies have confirmed that the proper application of certain topper agents, along with the use of a modified loading chute, can reduce coal dust levels by at least 85 percent. Also, during a seven month period in 2010, BNSF undertook a large-scale field trial ("Super Trial") of coal dust mitigation measures so that shippers could obtain more information on the effectiveness of various mitigation measures. The trial involved participation by vendors as well as several mines and coal shippers. Different topper agents were tested in the laboratory and in the field on operating coal trains to determine the effectiveness of different products and services in reducing coal dust releases. The Super Trial confirmed that the application of certain topper agents, when used in combination with a modified loading chute, can reduce coal dust losses by at least 85%. An additional phase of the Super Trial will be carried out in 2011 to test the effects of a compaction technique on coal dusting events.

Read additional information on the [Super Trial](#).

Does BNSF have the authority to establish loading rules to deal with coal dust?

Yes. In March 2011, the Surface Transportation Board (STB), the federal agency with regulatory authority over BNSF coal transportation, issued a decision in a case brought by Arkansas Electric Cooperative Corporation finding that BNSF has a right to establish reasonable coal loading requirements that will prevent the loss of coal dust from the tops of open top coal cars. The STB concluded that coal dust is a harmful contaminant of rail ballast and that it is appropriate for BNSF to prevent the loss of coal through appropriate coal loading rules rather than deal with coal dust after it has escaped from loaded cars through expanded maintenance of the rail lines.

What is the status of BNSF's coal dust standards in light of the March 2011 STB decision?

In 2009, BNSF established a tariff that set a quantitative limit on coal dust that could be released from loaded coal trains, as gauged by track-side monitors located at fixed points on PRB rail lines. In its March 2011 decision in the Arkansas Electric Cooperative Corporation case, the STB found that it was premature for BNSF to enforce coal dust standards through a specific monitoring system located along the PRB coal lines. The STB concluded that shippers

need to have more certainty when they load their coal cars that they will be in compliance with BNSF's coal dust rules. On July 14, 2011, BNSF issued a revised, specific implementing tariff rule that complies with the STB decision.

What is BNSF's current coal loading rule?

In response to the STB's March 2011 decision, BNSF has established a [new coal loading rule](#). BNSF's new loading rule has the same objective as its prior coal dust standards, which is to reduce coal dust losses from loaded coal cars by at least 85 percent. However, BNSF's new rule accomplishes this objective through an activity-based "safe harbor", whereby shippers can use approved methods of coal dust control to be sure when they load their coal cars that they will be in compliance with BNSF's rule. Under BNSF's loading rule, a shipper will be deemed to be in compliance with BNSF's loading requirements if the shipper loads coal cars using BNSF's Load Profile Template and also ensures that an acceptable topper agent is properly applied to the loaded coal at an effective concentration level and in accordance with the manufacturer's specifications. An acceptable topper agent is one that has been shown to reduce coal dust releases by 85%, and [three available topper agents](#) have been shown to meet this requirement. A shipper may also seek to include any other method of coal dust suppression (e.g., compaction or other technology) by submitting a compliance plan to BNSF that provides evidence demonstrating that the alternative compliance measure will reduce coal dust releases by at least 85 percent.

When will BNSF's new coal loading rule take effect?

In keeping with BNSF's willingness to work with our customers to implement the new rules for coal dust mitigation in a reasonable fashion, BNSF is giving its shippers substantial time to adopt and implement compliance measures before BNSF's operating rule goes into effect. BNSF has set an effective date for compliance of October 1, 2011. BNSF expects that shippers will comply with the STB decision and timely implement the stipulated coal dust mitigation measures at origin to effectively mitigate against the release of coal dust.