Virginia Department of Planning and Budget
Economic Impact Analysis

4 VAC 25-40 Safety and Health Regulations for Mineral Mining
Department of Energy
Town Hall Action/Stage: 6624 / 10539 Fast-Track
July 9, 2026

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with § 2.2-4007.04 of the Code of Virginia (Code) and Executive Order 17 (2026). The analysis presented below represents DPB's best estimate of the potential economic impacts as of the date of this analysis.[1]

Summary of the Proposed Amendments to Regulation

The Department of Energy (NRG) proposes to allow additional means to tow heavy mineral mining equipment that is not being operated under its own power.

Background

Currently, this regulation requires mineral mining operators to use specifically "a tow bar and safety chain" to tow heavy equipment (e.g., front-end loaders, dozers, excavators, etc.) that is not being operated under its own power. After a review to reduce regulatory burdens and to streamline regulations, NRG proposes to also allow "other effective and safe means of control" to tow such equipment. NRG also notes that the federal Mine Safety and Health regulations similarly allow "other effective means of control" to tow mobile mining equipment.[2]

Estimated Benefits and Costs

If towing is necessary to repair failing heavy equipment, the compliance costs under the current regulations can be considerable as explained below, but it generally is not. NRG reports that these large pieces of equipment are more often repaired in the field if they cannot be moved

[1] See Code § 2.2-4007.04 (A).
[2] https://www.ecfr.gov/current/title-30/chapter-I/subchapter-K/part-56/subpart-M/subject-group-ECFR542ef6b5e544e10/section-56.14209

under their own power back to a shop facility. Other alternatives are partial disassembly and moving by trailer to a repair facility.

In the event when towing must occur, one option for the mining operator to comply with the current requirement is to maintain towing apparatus ready for use. According to NRG, tow bars designed to handle the weight of heavy-duty off-road mining equipment are made-to-order specialty items which require different adapters to fit different equipment types. Adapters are often required for both the towing and towed equipment. This makes these tow bars sometimes difficult to obtain and expensive. Maintaining an inventory of multiple different adapters for each piece of equipment would likely add considerably to the costs. NRG estimates that a tow bar that is capable of a dozer towing a front-end loader would cost roughly $52,000.

In the alternative scenario where towing apparatus are not readily available, different types of costs are implicated under the current requirement. If the tow bar is ordered as needed after a heavy equipment failure, there would likely be delays due to its production and delivery. NRG estimates that the lead time for delivery of a made-to-order tow bar would be about ten weeks. Additionally, the longer the repair takes, there would likely be some revenue loss due to production downtime. According to NRG, a conservative cost estimate of these delays can be set at between $10,000 and $15,000 of potential lost revenue per hour of production downtime.

The proposal would allow for alternative methods to tow equipment that is not being operated under its own power provided that these alternative methods are effective and contain a safe means of controlling the machinery. NRG states that depending on the circumstances of the tow, a tow bar may not be needed to maintain adequate separation between the towed and towing equipment and to protect the operator of the towing vehicle. For example, it may be feasible in certain circumstances to have two towing vehicles (one in front and one in back) both connected to the equipment with properly rated cables. The combined assembly moves in a coordinated manner with each cable maintaining the needed separation as the tow traverses undulating terrain. A winch arrangement could also be used in short tows to ensure the separation between the towing vehicle and the towed vehicle. Thus, allowing additional pathways to move non-operational heavy equipment would provide more flexibility to regulants, which may reduce compliance costs associated with towing apparatus for some mining operators.

Businesses and Other Entities Affected

According to NRG, there are 432 regulated mineral mining operations across the state of Virginia. No regulated entity appears to be disproportionally affected.

The Code requires DPB to assess whether an adverse impact may result from the proposed regulation.[3] An adverse impact is indicated if there is any increase in net cost or reduction in net benefit for any entity, even if the benefits exceed the costs for all entities combined.[4] As noted above, the proposal may reduce compliance costs for some mining operators. Thus, no adverse impact is indicated.

Small Businesses[5] Affected:[6]

The proposed amendments do not appear to adversely affect small businesses.

Localities[7] Affected[8]

The proposed amendments do not introduce costs for localities nor do they disproportionally affect any locality.

Projected Impact on Employment

The proposed amendments may reduce the demand for labor in production of made-to-order tow bars and adapters; and may increase the demand for labor needed to employ alternative methods to tow equipment. The net impact on total employment is not known.

Effects on the Use and Value of Private Property

The proposal may reduce compliance costs of some mining operators and have a positive impact on their asset values. No impact on real estate development costs is expected.

[3] See Code § 2.2-4007.04 (D).
[4] Statute does not define “adverse impact,” state whether only Virginia entities should be considered, nor indicate whether an adverse impact results from regulatory requirements mandated by legislation. As a result, DPB has adopted a definition of adverse impact that assesses changes in net costs and benefits for each affected Virginia entity that directly results from discretionary changes to the regulation.
[5] Pursuant to § 2.2-4007.04 of the Code of Virginia, small business is defined as “a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than $6 million.”
[6] See Code § 2.2-4007.04 (A.2). and Code § 2.2-4007.1 (C).
[7] “Locality” can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulatory change are most likely to occur.
[8] Code § 2.2-4007.04 defines “particularly affected" as bearing disproportionate material impact.