

Office of Regulatory Management
Economic Review Form

Agency name	Department of Labor and Industry
Virginia Administrative Code (VAC) Chapter citation(s)	16 VAC 25-97
VAC Chapter title(s)	Chapter 97. Reverse Signal Operation Safety Requirements for Motor Vehicles, Machinery and Equipment in General Industry and the Construction Industry
Action title	Periodic Review of Regulations
Date this document prepared	June 1, 2023
Regulatory Stage (including Issuance of Guidance Documents)	Periodic Review of Regulations

Cost Benefit Analysis

Complete Tables 1a and 1b for all regulatory actions. You do not need to complete Table 1c if the regulatory action is required by state statute or federal statute or regulation and leaves no discretion in its implementation.

Table 1a should provide analysis for the regulatory approach you are taking. Table 1b should provide analysis for the approach of leaving the current regulations intact (i.e., no further change is implemented). Table 1c should provide analysis for at least one alternative approach. You should not limit yourself to one alternative, however, and can add additional charts as needed.

Report both direct and indirect costs and benefits that can be monetized in Boxes 1 and 2. Report direct and indirect costs and benefits that cannot be monetized in Box 4. See the ORM Regulatory Economic Analysis Manual for additional guidance.

Table 1a: Costs and Benefits of the Proposed Changes (Primary Option)

(1) Direct & Indirect Costs & Benefits (Monetized)	<p>Direct Costs: Describe the direct costs of this proposed change here.</p> <p>Indirect Costs: Describe the indirect costs of the proposed change.</p> <p>Direct Benefits: Describe the direct benefits of this proposed change here.</p> <p>Indirect Benefits: Describe the indirect benefits of the proposed change.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Not applicable.	(b) Not applicable.
(3) Net Monetized Benefit	Not applicable.	
(4) Other Costs & Benefits (Non-Monetized)	Not applicable.	
(5) Information Sources	Not applicable.	

Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)

(1) Direct & Indirect Costs & Benefits (Monetized)	<p>Direct Costs: Describe the direct costs of this proposed change here.</p> <p>Indirect Costs: Describe the indirect costs of the proposed change.</p> <p>Direct Benefits: Describe the direct benefits of this proposed change here.</p> <p>Indirect Benefits: Describe the indirect benefits of the proposed change.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Not applicable.	(b) Not applicable.
(3) Net Monetized Benefit	Not applicable.	

(4) Other Costs & Benefits (Non-Monetized)	Not applicable.
(5) Information Sources	Not applicable.

Table 1c: Costs and Benefits under Alternative Approach(es)

(1) Direct & Indirect Costs & Benefits (Monetized)	<p>Direct Costs: Describe the direct costs of this proposed change here.</p> <p>Indirect Costs: Describe the indirect costs of the proposed change.</p> <p>Direct Benefits: Describe the direct benefits of this proposed change here.</p> <p>Indirect Benefits: Describe the indirect benefits of the proposed change.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Not applicable.	(b) Not applicable.
(3) Net Monetized Benefit	Not applicable.	
(4) Other Costs & Benefits (Non-Monetized)	Not applicable.	
(5) Information Sources	Not applicable.	

Impact on Local Partners

Use this chart to describe impacts on local partners. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 2: Impact on Local Partners

<p>(1) Direct & Indirect Costs & Benefits (Monetized)</p>	<ul style="list-style-type: none"> • Direct Costs: Describe the direct costs of this proposed change here. • Indirect Costs: Describe the indirect costs of the proposed change. • Direct Benefits: Describe the direct benefits of this proposed change here. • Indirect Benefits: Describe the indirect benefits of the proposed change. <p>The regulation neither disproportionately affects particular localities, nor affects costs for local governments, unless and to the extent that a local government has employees that operate vehicles with an obstructed view to the rear. In such cases, local governments would have to assure compliance with the regulation, including training requirements for covered employees. Covered local government operations could also be subject to inspection by the Virginia Occupational Safety and Health (VOSH) program, which could result in the issuance of violations and associated penalties.</p> <p>At the time of adoption in 2009, the Department made available to employers a free training program that could be used to meet the training requirements contained in the final standard. Local governments and small businesses also had the opportunity to take advantage of the Virginia Occupational Safety and Health (VOSH) program’s free, confidential Consultation and Training resources.</p> <p>Based on information received during the comment periods for the proposed standard, commenters for the construction industry indicated that current rate of pay was \$20 per hour for operators, plus fringes (DOLI assumed a 25% rate for fringes, the total compensation rate is \$25 per hour); and \$15 per hour, plus fringes, for laborers (DOLI assumed a 25% rate for fringes, the total compensation rate is \$18.75 per hour). The Department estimated at that time that training on the final standard would take between 30-60 minutes. Costs for operators would range from \$17.50 to \$25.00 per operator and from \$9.38 to \$18.75 per laborer.</p> <p>Applying an inflation escalator of 29.3% for the years 2009 to 2022, costs per operator would range from \$22.63 to \$33.33 and from \$12.13 to \$24.24 (see Information Source section below). Local governments and small businesses continue to have access the VOSH program’s free, confidential Consultation and Training resources.</p>
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	<p>The Reverse Signal Operations Standard provides a comprehensive safety, health and welfare approach to employees exposed to the same back-up hazard across construction and general industries.</p> <p>Federal OSHA has no comparable comprehensive regulation applicable in general industry and construction but does have three minor regulatory requirements for certain construction, logging, and earthmoving equipment on power generation off-highway jobsites.</p> <p>At the time of its adoption, Virginia was averaging two back-up fatal accidents per year. In the years following adoption of the regulation in 2009, Virginia experienced a 50% reduction in fatal back-up accidents (one fewer employee fatality per year).</p> <p>The federal Occupational Safety and Health Administration (OSHA) estimated in 2012 that each fatal accident avoided by employers and employees is valued at 9 million dollars (see Information Source section below).</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) See (1) above.	(b) See (1) above.
(3) Other Costs & Benefits (Non-Monetized)	To the extent that a DOLI inspection delays completion work in an area where an employee is operating a covered vehicle, the local government could experience a delay in use of the specific area until the onsite inspection is complete.	
(4) Assistance	Not applicable.	
(5) Information Sources	<p>https://www.usinflationcalculator.com/inflation/current-inflation-rates/ Data Source: U.S. Bureau of Labor Statistics: All items in U.S. city average, all urban consumers, not seasonally adjusted.</p> <p>92 Fed. Reg. 29686, Amendments to 29 CFR 1904 and 1902, Improve Tracking of Workplace Injuries and Illnesses, Final Rule. Based on the Viscusi & Aldy’s (2003) meta-analysis of studies in the economics literature that uses a willingness to pay methodology to estimate the imputed value of life-saving programs.</p>	

Impacts on Families

Use this chart to describe impacts on families. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 3: Impact on Families

(1) Direct & Indirect Costs & Benefits (Monetized)	<ul style="list-style-type: none"> • Direct Costs: Describe the direct costs of this proposed change here. • Indirect Costs: Describe the indirect costs of the proposed change. • Direct Benefits: Describe the direct benefits of this proposed change here. • Indirect Benefits: Describe the indirect benefits of the proposed change. <p>No cost impacts are anticipated for families.</p> <p>See benefits listed in Table 2 above.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) See (1) above.	(b) See (1) above.
(3) Other Costs & Benefits (Non-Monetized)	None identified.	
(4) Information Sources	None identified.	

Impacts on Small Businesses

Use this chart to describe impacts on small businesses. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 4: Impact on Small Businesses

(1) Direct & Indirect Costs & Benefits (Monetized)	<ul style="list-style-type: none"> • Direct Costs: Describe the direct costs of this proposed change here. • Indirect Costs: Describe the indirect costs of the proposed change. • Direct Benefits: Describe the direct benefits of this proposed change here. • Indirect Benefits: Describe the indirect benefits of the proposed change. <p>See Table 2 above for costs and benefits. Small businesses would be impacted in the same manner as local governments.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) See (1) above.	(b) See (1) above.

(3) Other Costs & Benefits (Non-Monetized)	To the extent that a DOLI inspection delays completion work in an area where an employee is operating a covered vehicle, the local government could experience a delay in use of the specific area until the onsite inspection is complete.
(4) Alternatives	The only alternative considered was repeal of the regulation; which the Department does not believe is supported by fatality data in the covered industries. Since adoption of the standard in 2009, there has been a consistent reduction in fatal reverse signal accidents of 50% over an extended period of time.
(5) Information Sources	None identified.

Changes to Number of Regulatory Requirements

For each individual VAC Chapter amended, repealed, or promulgated by this regulatory action, list (a) the initial requirement count, (b) the count of requirements that this regulatory package is adding, (c) the count of requirements that this regulatory package is reducing, (d) the net change in the number of requirements. This count should be based upon the text as written when this stage was presented for executive branch review. Five rows have been provided, add or delete rows as needed. In the last row, indicate the total number for each column.

Table 5: Total Number of Requirements

	Number of Requirements			
Chapter number	Initial Count	Additions	Subtractions	Net Change
16VAC25-97-10	0	0	0	0
16VAC25-97-20	0	0	0	0
16VAC25-97-30	2	0	0	0
16VAC25-97-40	7	0	0	0
16VAC25-97-50	1	0	0	0
TOTAL	10	0	0	0