



Virginia
Regulatory
Town Hall

townhall.virginia.gov

Proposed Regulation Agency Background Document

Agency name	Virginia Department of Labor and Industry
Virginia Administrative Code (VAC) citation	16VAC25-90 -1910.269 (p)(1)(ii) 16VAC25-175-1926.601(b) 16VAC25-175-1926.602(a)(9)(ii) 16VAC25-175-1926.952(a)(3) 16VAC25-97
Regulation title	16VAC25-90-1910.269, Electric power generation, transmission, and distribution 16VAC25-175-1926.601, Motor vehicles 16VAC25-175-602, Material Handling Equipment 16VAC25-175-1926.952, Mechanical Equipment Proposed Regulation: 16 VAC 25-97, Reverse Signal Operation Safety Requirements for Vehicles, Machinery and Equipment for General Industry and the Construction Industry
Action title	Amend: 16VAC25-90-1910.269(p)(1)(ii) Amend: 16VAC25-175-1926.601(b) Amend: 16VAC25-175-1926.602(a)(9)(ii) Amend: 16VAC25-175-1926.952(a)(3) Proposed Regulation: 16VAC25-97 to Establish Reverse Signal Operation Safety Requirements for Vehicles, Machinery and Equipment for General Industry and the Construction Industry
Date this document prepared	July 30, 2008

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 21 (2002) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

Brief summary

In a short paragraph, please summarize all substantive changes that are being proposed in this regulatory action.

[NOTE: This **revised proposed regulation** is being published for an additional 30 day comment period due to substantive changes to the **original proposed regulation** in accordance with Va. Code §2.2-4007.03.B., which provides:

“If an agency wishes to change a proposed regulation before adopting it as a final regulation, it may choose to publish a revised proposed regulation, provided the latter is subject to a public comment period of at least 30 additional days and the agency complies in all other respects with this section.”]

In the construction industry, the Board seeks the amendment of reverse signal operation safety procedures in standards for the construction industry in §§16VAC25-175-1926.601(b)(4), 16VAC25-175-1926.602(a)(9)(ii), and 16VAC25-175-1926.952(a)(3); in general industry, the Board seeks the amendment of the reverse signal operation safety procedures for the Electric Power Generation, Transmission and Distribution standard for general industry contained in §16VAC25-90-1910.269(p)(1)(ii); and to establish a comprehensive reverse signal operation procedures regulation for all construction and general industry vehicles, machinery and equipment with an obstructed view to the rear, whether for operation in off-road work zones or over the road transportation or hauling.

The revised proposed regulation at 16 VAC 25-97 will provide that construction and general industry covered vehicles, machinery and equipment , whether for operation in off-road work zones or over the road transportation or hauling, shall not be operated in reverse unless the vehicle has a reverse signal alarm audible above the surrounding noise level **and** either the vehicle is backed up only when a designated observer or ground guide signals that it is safe to do so, **or** before operating the covered vehicle in reverse, the driver visually determines that no employee is in the path of the covered vehicle.

Work procedures and training requirements are provided for designated observers/ground guides and drivers/operators of covered equipment.

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter number(s), if applicable, and (2) promulgating entity, i.e., the agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

The Safety and Health Codes Board is authorized by Title 40.1-22(5) to:

“... adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees in places of employment over which it has jurisdiction and

to effect compliance with the federal VOSH Act of 1970...as may be necessary to carry out its functions established under this title.”

“In making such rules and regulations to protect the occupational safety and health of employees, the Board shall adopt the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence that no employee will suffer material impairment of health or functional capacity.”

“However, such standards shall be at least as stringent as the standards promulgated by the federal OSH Act of 1970 (P.L.91-596). In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experiences gained under this and other health and safety laws.”

Va. Code §2.2-4007.03.B. provides:

“If an agency wishes to change a proposed regulation before adopting it as a final regulation, it may choose to publish a revised proposed regulation, provided the latter is subject to a public comment period of at least 30 additional days and the agency complies in all other respects with this section.”

Va. Code § 2.2-4007.06 provides:

“If one or more changes with substantial impact are made to a proposed regulation from the time that it is published as a proposed regulation to the time it is published as a final regulation, any person may petition the agency within 30 days from the publication of the final regulation to request an opportunity for oral and written submittals on the changes to the regulation. If the agency receives requests from at least 25 persons for an opportunity to submit oral and written comments on the changes to the regulation, the agency shall (i) suspend the regulatory process for 30 days to solicit additional public comment and (ii) file notice of the additional 30-day public comment period with the Registrar of Regulations, unless the agency determines that the changes made are minor or inconsequential in their impact. The comment period, if any, shall begin on the date of publication of the notice in the Register. Agency denial of petitions for a comment period on changes to the regulation shall be subject to judicial review.”

Purpose

Please explain the need for the new or amended regulation by (1) detailing the specific reasons why this regulatory action is essential to protect the health, safety, or welfare of citizens, and (2) discussing the goals of the proposal, the environmental benefits, and the problems the proposal is intended to solve.

The purpose of the proposed change is to provide more comprehensive protection to employees in construction and general industry work areas exposed to vehicular, machinery and equipment traffic covered by the aforementioned standards and to provide the same degree of protection to employees in similar working conditions where vehicles, machinery and equipment with obstructed views to the rear are not otherwise covered by current regulations. The proposed regulation will apply to all covered vehicles, machinery and equipment in both construction and general industry, whether during operations in off-road work zones or over the road transportation or hauling.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. (More detail about these changes is requested in the “Detail of changes” section.)

Summary of Rulemaking Process:

The Notice of Intended Regulatory Action (NOIRA) was adopted by Board on March 7, 2006. The NOIRA was published on September 4, 2006, with 30-day comment period ending October 4, 2006. No comments were received. Next, the Board adopted proposed regulatory language on December 6, 2006. The proposed regulation was published on August 20, 2007, with a 60-day comment period ending on October 19, 2007. No comments were received. A public hearing was held by the Board on October 18, 2007. No comments were received. After the close of the 60-day comment period, the Department received requests five individuals for an additional opportunity to comment. At its meeting on February 28, 2008, the Board approved the publication of an additional 30-day comment period, which was published from April 14 to May 14, 2008. No comments were received through Virginia’s Regulatory Town Hall. Comments were submitted directly to the VOSH Program, and are addressed in section V., below. The Department held a meeting on April 16, 2008, with interested parties representing employer and employee interests from the construction and general industries. The results of the April 16th meeting are summarized in the Public Comment section below.

[NOTE: This **revised proposed regulation** is being published for an additional 30 day comment period due to substantive changes to the **original proposed regulation** in accordance with Va. Code §2.2-4007.03.B., which provides:

“If an agency wishes to change a proposed regulation before adopting it as a final regulation, it may choose to publish a revised proposed regulation, provided the latter is subject to a public comment period of at least 30 additional days and the agency complies in all other respects with this section.”]

Substantive Changes:

In the construction industry, the Board seeks the amendment of reverse signal operation safety procedures in standards for the construction industry in §§16VAC25-175-1926.601(b)(4), 16VAC25-175-1926.602(a)(9)(ii), and 16VAC25-175-1926.952(a)(3); in general industry, the Board seeks the amendment of the reverse signal operation safety procedures for the Electric Power Generation, Transmission and Distribution standard for general industry contained in §16VAC25-90-1910.269(p)(1)(ii); and to establish a comprehensive reverse signal operation procedures regulation for all construction and general industry vehicles, machinery and equipment with an obstructed view to the rear, whether for operation in off-road work zones or over the road transportation or hauling.

The revised proposed regulation at 16 VAC 25-97 will provide that construction and general industry vehicles, machinery and equipment (hereafter referred to as covered vehicles), whether for operation in off-road work zones or over the road transportation or hauling, shall not be operated in reverse unless the vehicle has a reverse signal alarm audible above the surrounding noise level **and** either the vehicle is backed up only when a designated observer or ground guide signals that it is safe to do so, **or** before

operating the covered vehicle in reverse, the driver visually determines that no employee is in the path of the covered vehicle.

[NOTE: Under the **original** proposed regulation, a covered vehicle could be exempted from using a designated employee signaler/ground guide if it had a reverse signal alarm audible above surrounding noise and the driver visually determined from outside the vehicle that no employees are in the backing zone and that it was reasonable to expect that no employees will enter the backing zone during reverse operations. **In the revised proposed regulation, the option allowing the driver to visually determine from outside the vehicle that no employee is in the backing zone, is replaced with language based on 16VAC25-90-1910.266(f)(2)(v) of the Logging Standard which provides:**

“Before starting or moving any machine, the operator shall determine that no employee is in the path of the machine.”

Under the **original** proposed regulation, covered vehicles that **were not** equipped with a reverse-signal alarm upon manufacture or later retrofitted with an alarm were exempt from the reverse signal alarm requirement if they either used a designated employee signaler/ground guide, or if the driver visually determined from outside the vehicle that no employees are in the backing zone and that it is reasonable to expect that no employees will enter the backing zone during back-up. **In the revised proposed regulation, the option allowing the driver to visually determine from outside the vehicle that no employee is in the backing zone, is replaced with language based on 1910.266(f)(2)(v) of the Logging Standard which provides:**

“Before starting or moving any machine, the operator shall determine that no employee is in the path of the machine.”]

The proposed regulation provides a definition of the phrase “obstructed view to the rear.”

Covered vehicles with video or similar technological capability to provide the driver with a full view behind the vehicle are exempt from the requirement to have a designated signaler/ground guide.

Covered vehicles that were not equipped with a reverse-signal alarm upon manufacture or were not later retrofitted with an alarm are exempt from having a reverse signal alarm audible above the surrounding noise level but must still comply with other requirements in the proposed regulation. **In the revised proposed regulation this exemption does not apply if the manufacturer offered the specific employer a retrofit package that was at a reasonable and economically feasible cost.**

The revised proposed regulation added a provision that provides that where immediate correction is not feasible, covered vehicles with a reverse signal alarm that is not operational or is not functioning properly shall be either operated in reverse only when a designated observer/ground guide signals that it is safe to do so; or removed from service until the reverse signal alarm is repaired.

To the extent that any federal Department of Transportation (DOT) regulation applies to covered vehicles conflicts with this section, the DOT regulation will take precedence.

While engaged in signaling activities, designated signalers/ground guides must have no other assigned

duties, must not be distracted by such things as personal cellular phones or headsets and must be provided with and wear high visibility/reflective warning garments. No driver of a covered vehicle will travel in reverse unless they maintain constant visual contact with the designated signaler/ground guide. If visual contact is lost, the driver must immediately stop the vehicle until visual contact is regained and a positive indication is received from the signaler/ground guide that backup operations can proceed. **The revised proposed regulation adds provisions that prohibit designated observers/ground guides and other employees from entering or crossing the path in close proximity to a covered vehicle while it is operating in reverse.**

Prior to permitting an employee to engage in any covered activity, the employer shall ensure that each driver of a covered vehicle and each designated signaler/ground guide is trained in the requirements of this section. Refresher training shall be provided by the employer for any driver of a covered vehicle or any designated signaler/ground guide when the driver or designated signaler has been observed to violate the requirements of this section or involved in an accident or near miss accident; or has received an evaluation that reveals that the driver or designated signaler/ground guide is not operating in a safe manner.

Issues

Please identify the issues associated with the proposed regulatory action, including:

- 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;*
- 2) the primary advantages and disadvantages to the agency or the Commonwealth; and*
- 3) other pertinent matters of interest to the regulated community, government officials, and the public.*

If the regulatory action poses no disadvantages to the public or the Commonwealth, please so indicate.

Summary of Rulemaking Process:

The Notice of Intended Regulatory Action (NOIRA) was adopted by Board on March 7, 2006. The NOIRA was published on September 4, 2006, with 30-day comment period ending October 4, 2006. No comments were received. Next, the Board adopted proposed regulatory language on December 6, 2006. The proposed regulation was published on August 20, 2007, with a 60-day comment period ending on October 19, 2007. No comments were received. A public hearing was held by the Board on October 18, 2007. No comments were received. After the close of the 60-day comment period, the Department received requests five individuals for an additional opportunity to comment. At its meeting on February 28, 2008, the Board approved the publication of an additional 30-day comment period, which was published from April 14 to May 14, 2008. No comments were received through Virginia's Regulatory Town Hall. Comments were submitted directly to the VOSH Program, and are addressed in section V., below. The Department held a meeting on April 16, 2008, with interested parties representing employer and employee interests from the construction and general industries. The results of the April 16th meeting are summarized in the Public Comments section below.

Issues:

Existing Federal Identical Standards Are Insufficient

Construction

A review of VOSH fatal accident investigations from 1992 to September 30, 2007 (**updated since December 6, 2006 Board meeting**), found 19 fatal vehicle or equipment accidents in construction work zones where employees were struck:

<u>Number of fatalities</u>	<u>Type of vehicle</u>
11	dump truck
<u>8</u>	1 each: cement truck, fuel truck, pavement planer, vacuum truck, bobcat, tandem truck, trackhoe and other-unspecified.
Total 19	

While in some cases it was found that reverse signal alarms were not operational, many accidents occurred even with operational reverse signal alarms. In a situation where an existing standard appears to be applicable, VOSH is often faced with the difficulty of having to document whether a reverse signal alarm was audible over the surrounding construction noise at the time of the accident. This can be problematic at best, since exact accident conditions cannot be recreated. In at least two cases, an employee operating as the signaler was struck by the vehicle when the driver lost sight of the employee while backing-up.

Fatal accidents also occurred to employees engaged in their own work unrelated to such vehicles or equipment where they apparently became de-sensitized to the familiar and repeated sounds of reverse signal alarms and other construction noise in the work zone.

In addition, the existing standards are limited in their scope and do not apply to all construction vehicles or equipment with an obstructed view to the rear. For instance, §16VAC25-175-1926.601(b)(4) only applies to motor vehicles on an off-highway jobsite not open to public traffic, and specifically does not apply to earthmoving equipment covered by §16VAC25-175-1926.602(a)(9)(ii). Neither regulation covers compactors or “skid-steer” equipment.

In VOSH investigations of a back-up accidents involving vehicles or equipment not covered by the previously cited standards, the only enforcement tool available is the use of §40.1-51.1.A. This statutory provision, used in the absence of an applicable regulatory standard, is more commonly referred to as the “general duty clause.” It provides, in part, that:

“It shall be the duty of every employer to furnish to each of his employees safe employment and a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees....”

This general wording does not specifically mention hazards associated with vehicles or equipment or any other specific situation. Therefore, according to case law VOSH must document that the hazard in question was “recognized” either through industry recognition (e.g. a national consensus standard), employer recognition (e.g. a company safety rule, or the existence of an operator’s manual for the vehicle), or common sense recognition.

A concern with the use of the general duty clause is that it does not always result in consistent application of safety rules. This occurs as the use of the clause is often fact specific and dependent on a particular industry’s national consensus standard, or employer work rule or equipment operator’s manual.

Another issue regarding the general duty clause is that the statute has been interpreted in case law to only apply to “serious” violations, i.e., those that would cause “death or serious physical harm”. It cannot be used to eliminate “other-than-serious” hazards before they can become serious in nature.

General Industry

The requirements of §16VAC25-90-1910.269(p)(1)(ii) do not provide adequate protection for employees under the Electric Power Generation, Transmission and Distribution standard and provide no coverage at all for all other areas in general industry.

A review of VOSH fatal accident investigations from 1992 to September, 2007 (**updated since December 6, 2006 Board meeting**), found nine fatal accidents in general industry work zones where employees were struck:

<u>Number of fatalities</u>	<u>Type of vehicle</u>
3	logging vehicles
1	garbage trucks
1	fuel truck
3	tractor-trailer trucks
1	fork lift
1	dump truck
<u>1</u>	vehicle not specified

Total 11

As with the accident history in construction, general industry also had cases where it was found that reverse signal alarms were not operational, but other accidents occurred even with operational reverse signal alarms. Again, as in construction, general industry fatal accidents often occurred to employees who were engaged in their own work who apparently became de-sensitized to the sound of reverse signal alarms and other sounds in the work zone.

In addition, the standard is limited in its scope and does not apply to all general industry vehicles or equipment with an obstructed view to the rear. Section 16VAC25-90-1910.269(p)(1)(ii) only applies to motor vehicles in the electric power generation, transmission and distribution industry. When VOSH investigates a back-up accident involving a vehicle not covered by the above 16VAC25-90-1910 standard, the only enforcement tool available is the use of §40.1-51.1.A., referred to as the “general duty clause.” The same concerns regarding the use of the statute in the Construction Industry apply to its use in the General Industry sector as well.

Construction and general industry employers should benefit from reductions in injuries and fatalities associated with current unsafe reverse signal operations practices which would be addressed by any comprehensive regulation. On average over the last 15 years there are two (2) reverse operation fatal accidents that occur per year which could be prevented if the proposed regulation is fully complied with.

Construction and general industry employees across the state would benefit from increased safety requirements from vehicular, machinery and equipment back-up operations. A significant reduction in employee deaths attributed to covered vehicles is anticipated. Employees that are drivers of covered vehicles or designated signalers/ground guides will have to receive training on the requirements of the proposed regulation.

The Department plans to prepare and make available to employers a free training program that could be used to meet the training requirements contained in the revised proposed regulation. Based on information received during the additional 30 day comment period from April 14 to May 14, 2008, commenters for the construction industry indicated that current rate of pay is \$20 per hour for operators, plus fringes (if we assume a 25% rate for fringes, the total compensation rate is \$25 per hour); and \$15 per hour, plus fringes, for laborers (if we assume a 25% rate for fringes, the total compensation rate is \$18.75 per hour). The Department estimates that training on the revised proposed regulation 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.

Requirements more restrictive than federal

Please identify and describe any requirement of the proposal which are more restrictive than applicable federal requirements. Include a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements or no requirements that exceed applicable federal requirements, include a statement to that effect.

The following boxes highlight the differences between the existing federal standards on this issue:

§16VAC25-175-1926.601(b)(4): “No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:

- (i)The vehicle has a reverse signal alarm audible above the surrounding noise level or;
- (ii)The vehicle is backed up only when an observer signals that it is safe to do so.”

§16VAC25-175-1926.602(a)(9)(ii): “No employer shall permit earthmoving or compacting equipment which has an obstructed view to the rear to be used in reverse gear unless the equipment has in operation a reverse signal alarm distinguishable from the surrounding noise level or an employee signals that it is safe to do so.”

§16VAC25-175-1926.952(a)(3): “No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:

- (i)The vehicle has a reverse signal alarm audible above the surrounding noise level or;
- (ii)The vehicle is backed up only when an observer signals that it is safe to do so.”

§16VAC25-90-1910.269(p)(1)(ii): “No vehicular equipment having an obstructed view to the rear may be operated on off-highway jobsites where any employee is exposed to the hazards created by the moving vehicle unless:

- (i)The vehicle has a reverse signal alarm audible above the surrounding noise level, or;
- (ii)The vehicle is backed up only when a designated employee signals that it is safe to do so.”

The existing federal standards are limited in their scope and do not apply to all construction vehicles or equipment with an obstructed view to the rear. For instance, construction regulations §16VAC25-175-1926.601(b)(4) only applies to motor vehicles on an off-highway jobsite not open to public traffic, and specifically does not apply to earthmoving equipment covered by §16VAC25-175-1926.602(a)(9)(ii). Neither regulation covers compactors or “skid-steer” equipment. The existing federal general industry regulation §16VAC25-90-1910.269(p)(1)(ii) only applies to motor vehicles in the electric power generation, transmission and distribution industry. There are no federal reverse signal operation regulations for general industry vehicles/equipment with an obstructed view to the rear outside of those covered by 16VAC25-90-1910.269.

When VOSH investigates a back-up accident involving a vehicle not covered by the above construction and general industry regulation, the only enforcement tool available is the use of §40.1-51.1.A., referred to as the “general duty clause.” This statutory provision, used in the absence of an applicable regulatory standard, is more commonly referred to as the “general duty clause.” It provides, in part, that:

“It shall be the duty of every employer to furnish to each of his employees safe employment and a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees....”

This general wording does not specifically mention hazards associated with vehicles or equipment or any other specific situation. Therefore, according to case law VOSH must document that the hazard in question was “recognized” either through industry recognition (e.g. a national consensus standard), employer recognition (e.g. a company safety rule, or the existence of an operator’s manual for the vehicle), or common sense recognition.

A concern with the use of the general duty clause is that it does not always result in consistent application of safety rules. This occurs as the use of the clause is often fact specific and dependent on a particular industry’s national consensus standard, or employer work rule or equipment operator’s manual.

Another issue regarding the general duty clause is that the statute has been interpreted in case law to only apply to “serious” violations, i.e., those that would cause “death or serious physical harm”. It cannot be used to eliminate “other-than-serious” hazards before they can become serious in nature.

See Issues section above for discussion of fatal accidents involving reverse signal operation of vehicles/equipment in construction and general industry.

Current federal regulations do not contain the work procedures and training requirements for designated observers/ground guides and driver/operators of covered vehicles provided in the revised proposed regulation.

Localities particularly affected

Please identify any locality particularly affected by the proposed regulation. Locality particularly affected means any locality which bears any identified disproportionate material impact which would not be experienced by other localities.

There are no localities that are particularly affected by the proposed regulation.

Public participation

Please include a statement that in addition to any other comments on the proposal, the agency is seeking comments on the costs and benefits of the proposal and the impacts of the regulated community.

In addition to any other comments, the board/agency is seeking comments on the costs and benefits of the proposal and the potential impacts of this regulatory proposal. Also, the agency/board is seeking information on impacts on small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include 1) projected reporting, recordkeeping and other administrative costs, 2) probable effect of the regulation on affected small businesses, and 3) description of less intrusive or costly alternative methods of achieving the purpose of the regulation.

Anyone wishing to submit written comments may do so by mail, email or fax to Mr. Jay Withrow, Director of the Office of Legal Support, Virginia Department of Labor and Industry, Powers-Taylor Building, 13 South Thirteenth Street, Richmond, VA 23219; telephone no.: (804) 786-9873; fax no.: (804) 786-8418; jay.withrow@doli.virginia.gov Written comments must include the name and address of the commenter. In order to be considered comments must be received by the last date of the public comment period.

Economic impact

Please identify the anticipated economic impact of the proposed regulation.

<p>Projected cost to the state to implement and enforce the proposed regulation, including (a) fund source / fund detail, and (b) a delineation of one-time versus on-going expenditures</p>	<p>The department plans to prepare and make available to employers a free training program. The Department estimates that training on the revised proposed regulation 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. The cost to place an interactive training module on the Department’s website is approximately \$1,000 per year.</p>
<p>Projected cost of the regulation on localities</p>	<p>The department plans to prepare and make</p>

	<p>available to employers a free training program. The Department estimates that training on the revised proposed regulation would take between 30-60 minutes. Based on private sector hourly rates for equipment operators and laborers, costs for operators would range from \$17.50 to \$25.00 per operator and from \$9.38 to \$18.75 per laborer. The cost to place an interactive training module on the Department’s website is approximately \$1,000 per year.</p>
<p>Description of the individuals, businesses or other entities likely to be affected by the regulation</p>	<p>Construction and general industry businesses which utilize covered vehicles under the regulation. Covered vehicles are those with an obstructed view to the rear as defined in the regulation: “The phrase ‘obstructed view to the rear’ means anything that interferes with the overall view of the operator of the vehicle to the rear of the vehicle at ground level, and includes, but is not limited to, such obstacles as any part of the vehicle (e.g., structural members); its load (e.g., gravel, dirt, machinery parts); its height relative to ground level viewing; damage to windows or side mirrors, etc., used for rearview movement of the vehicle; restricted visibility due to weather conditions (e.g., heavy fog, heavy snow); or work being done after dark without proper lighting.” Construction and general industry businesses with employees that work in areas where covered vehicles operate in reverse.</p>
<p>Agency’s best estimate of the number of such entities that will be affected. Please include an estimate of the number of small businesses affected. Small business means 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.</p>	<p>Approximately 136,000</p>
<p>All projected costs of the regulation for affected individuals, businesses, or other entities. Please be specific. Be sure to include the projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses.</p>	<p>The current rate of pay is \$20 per hour for operators, plus fringes (if we assume a 25% for fringes, the total compensation rate is \$25 per hour); and \$15 per hour, plus fringes, for laborers (if we assume a 25% rate for fringes, the total compensation rate is \$18.75 per hour).</p>

Alternatives

Please describe any viable alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in §2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulation.

The department is unaware of any viable alternatives to the proposed regulatory action to decrease the number of worker fatalities and injuries caused by unintended backovers. Any alternatives to be considered by the department would have to be feasible from both a technological and cost perspective as well as be practical to implement procedurally in the workplace. The Department held a meeting on April 16, 2008, with interested parties representing employer and employee interests from the construction and general industries. The participants offered and approved changes to the original proposed regulation and were generally supportive of the revised proposed regulation which took their comments into consideration.

Regulatory flexibility analysis

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

A number of commenters suggested additional training for drivers/operators of covered vehicles and for designated observers/ground guides, in lieu of a comprehensive regulation. The Department reviewed reverse signal operation fatalities and their causes. While in some cases it was found that reverse signal alarms were not operational, many accidents occurred even with operational reverse signal alarms. In a situation where an existing standard appears to be applicable, VOSH is often faced with the difficulty of having to document whether a reverse signal alarm was audible over the surrounding construction noise at the time of the accident. This can be problematic at best, since exact accident conditions cannot be recreated. In at least two cases, an employee operating as the signaler was struck by the vehicle when the driver lost sight of the employee while backing-up. Fatal accidents also occurred to employees engaged in their own work unrelated to such vehicles or equipment where they apparently became de-sensitized to the familiar and repeated sounds of reverse signal alarms and other construction noise in the work zone.

When VOSH investigates a back-up accident involving a vehicle not covered by the above construction and general industry regulation, the only enforcement tool available is the use of §40.1-51.1.A., referred to as the "general duty clause." This statutory provision, used in the absence of an applicable regulatory standard, is more commonly referred to as the "general duty clause." It provides, in part, that:

"It shall be the duty of every employer to furnish to each of his employees safe employment and a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees...."

This general wording does not specifically mention hazards associated with vehicles or equipment or any other specific situation. Therefore, according to case law VOSH must document that the hazard in question was "recognized" either through industry recognition (e.g. a national consensus

standard), employer recognition (e.g. a company safety rule, or the existence of an operator’s manual for the vehicle), or common sense recognition.

A concern with the use of the general duty clause is that it does not always result in consistent application of safety rules. This occurs as the use of the clause is often fact specific and dependent on a particular industry’s national consensus standard, or employer work rule or equipment operator’s manual.

Another issue regarding the general duty clause is that the statute has been interpreted in case law to only apply to “serious” violations, i.e., those that would cause “death or serious physical harm”. It cannot be used to eliminate “other-than-serious” hazards before they can become serious in nature.

The Department is of the opinion that a comprehensive regulation which addresses work procedures as well as training requirements is the most effective way to reduce fatal accidents and serious injuries associated with reverse signal operations.

Public comment

Please summarize all comments received during public comment period following the publication of the Proposed Regulation, and provide the agency response.

Commenter	Comment	Agency response
<p>1. Mr. James R. Leaman, President, Virginia AFL-CIO (4/14/08)</p>	<p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Leaman wrote in support of the proposed regulation commenting that the 29 reverse operation fatalities in the last 13 years – an average of 2 or more per year – was an unacceptably high number. He also noted that the free training program to be provided by the Department should alleviate some costs associated with the regulation.</p>	<p>Agency response. None.</p>
<p>2. Mr. Will Karbach, Branch Highways, Inc. (4/17/08)</p>	<p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Karbach wrote in opposition to parts of the regulation commenting that the requirement to have a designated observer/ground guide could result in additional injuries because the environment in which his company works could result in the observer, despite the best of training, could become distracted or complacent and become a victim himself.</p>	<p>Agency Response: Many commenters raised concerns that the requirement to have a designated observer/ground guide could result in additional injuries to the designated observers/ground guides and the added expense to employers of having to provide a designated observer/ground guide for each piece of covered equipment.</p> <p><u>Department Response Related to the REVISED PROPOSED REGULATION</u></p>

	<p>He also commented that the requirement to have a designated observer/ground guide could result in increased expense and provided an example:</p> <p>“On one particular project we currently have in operation, there are 52 people and 30 pieces of construction equipment, not including those of our subcontractors. If we were to have observers for each piece of equipment, it would result in a 58% increase in labor costs. With weekly payroll across the company of over \$150k, I estimate that this would equate to an additional \$4+million in payroll per year, not including insurance and taxes.”</p> <p>Finally, he commented that on a macroeconomic level there must several hundred thousand pieces of equipment that could be covered by the proposed regulation and did not think there would be enough people in the labor market to provide designated observers/ground guides for each piece of equipment.</p>	<p>The Department held a meeting with interested parties on April 16, 2008 (see section VIII for summary), and is proposing to the Board the following substantive change to address the above concerns:</p> <ul style="list-style-type: none"> • The revised proposed regulation would require that no covered vehicle operate in reverse unless: <ol style="list-style-type: none"> 1. The covered vehicle has a reverse signal alarm audible above the surrounding noise level, and 2.a. The covered vehicle is <u>operated in reverse backed up</u> only when a designated observer or ground guide signals that it is safe to do so; <u>or</u> <u>2.b. Before operating the covered vehicle in reverse, the driver visually determines that no employee is in the path of the covered vehicle.</u> <p>The above underlined language added in section 2b is based on 1910.266(f)(2)(v) of the Logging Standard which provides:</p> <p><u>“Before starting or moving any machine, the operator shall determine that no employee is in the path of the machine.”</u></p> <p>The change is being recommended to the Board to address potential cost issues associated with the exemption from use of a designated observer/ground guide that would have allowed drivers to get out of the vehicle to determine that no employees are in the backing zone and that it is reasonable to expect that no employees will enter the backing zone. The change would also provide a level of consistency by providing drivers of covered vehicles in construction and general industry the same reverse operation option as provided drivers in the logging industry.</p> <p>This change would also help to address situations like a driver pulling into a large shipping terminal and having to back-up to a loading dock – the change would allow the driver as he pulls in to determine that no employees are in the back-up area and then continue with back-up without having to get</p>
--	--	--

		<p>out of the vehicle. Finally, the Department also considered concerns expressed at the April 16th meeting by construction contractors that significant costs could be incurred by the delays on large road building projects where a constant flow of dump trucks could result in each driver having to stop his vehicle, exit the cab to check for employees in the back-up zone, re-enter the cab and proceed with reverse operations for hundreds of yards.</p> <p><u>Department Response Related to the ORIGINAL PROPOSED REGULATION</u></p> <p>With regard to the original proposed regulation, the Department does not believe that hundreds or thousands of new "designated observer/ground guides" would have to be hired to comply with the regulation. We believe that most employers who currently do not use "designated observer/ground guides" would have taken advantage of the exemption that enables the driver to operate in reverse without a "designated observer/ground guide":</p> <p>"if the driver visually determines from outside the vehicle that no employees are in the backing zone and that it is reasonable to expect that no employees will enter the backing zone during reverse operation of the vehicle."</p> <p>For those employers that send delivery/trade trucks out with only one person, as noted above, those employers/drivers can take advantage of the exemption. If the single employee drives onto a worksite with other employers working in the area and chooses to request, as many do currently, assistance from an employee of another contractor on site to act as the "designated observer/ground guide," there is nothing in the proposed regulation to prohibit that practice. The employer of the driver would not be required to hire or train a "designated observer/ground guide" just to accompany their single driver, nor would it be that employer's responsibility to train the other contractor's "designated observer/ground guide."</p>
--	--	--

<p>3. Mr. Russell Quesenberry, Safety Administrator, S.W. Rodgers, Inc. (4/17/08)</p>	<p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Quesenberry wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries to the designated observers/ground guides:</p> <p>“I foresee employers using labor class employees for this task and this being a boring job thus creating an even more hazardous situation by having an employee at or near the rear of every machine being operated in reverse. I see more accidents when the designated observer would be the person run over because we put them in harms way. Everyone in the construction business knows where you have large machinery working and backing, you keep</p>	<p>What the Department wants to accomplish with the proposed regulation is to change current behaviors that cause these deaths and debilitating accidents. Without exception, every reverse signal operation fatality involves the driver either not knowing anyone is in the back-up zone or losing site of someone he knows is in the back-up zone and proceeding anyway. Under the current regulations, as long as a covered vehicle has a functioning back-up alarm, the burden of avoiding an accident is placed squarely on the shoulders of the pedestrians in the traffic area. No real safety responsibility is placed on the driver while operating the vehicle other than to make sure the back-up alarm is working. A driver can back-up without even checking his side mirrors under the current regulations. The revised proposed regulation will place a positive responsibility on the driver to either keep the designated observer/ground guide in sight at all times during reverse operations, or in the absence of a designated observer/ground guide, to visually determine that no one is in the back-up zone prior to beginning reverse operations of the vehicle.</p> <p>Agency Response: See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p> <p>With regard to what constitutes an obstructed view to the rear, the proposed regulation provides the following definition for that term and is based on a federal OSHA’s interpretation on the same issue:</p> <p>“The phrase “obstructed view to the rear” means anything that interferes with the overall view of the operator of the vehicle to the rear of the vehicle at ground level, and includes, but is not limited to, such obstacles as any part of the vehicle (e.g., structural members); its load (e.g., gravel, dirt, machinery parts); its height relative to ground level viewing; damage to windows or side mirrors, etc., used for rearview movement of the vehicle; restricted</p>
--	--	---

	<p>personnel away, not assign them to work in this hazardous location. What would be the distance for the designated spotter to be effective in backing the equipment safely but not be too close to be in danger themselves? About the issue of becoming complacent to the sound of a back up alarm, this person is going to listen to one all day and soon learn to tune it out, just like a chiming clock in a house. I agree every piece of equipment should have a back up alarm and not as worded by OSHA "with an obstructed view to the rear. What does not have an obstructed view to the rear? The human body has an obstructed view to the rear. Let's use a common sense approach to this problem and use the general duty clause to enforce "that we all have to provide a safe work place. We install back up alarms and maintain them on anything that goes in reverse. This also could save a few kids, mailboxes and trash cans from parents in automobiles. Next we educate the public and continue to educate and remind our employees just what that beep beep beep really means."</p> <p>With regard to a general industry setting, Mr. Quesenberry commented:</p> <p>"My concern here is only places of business open to the public. When you mix shoppers and browsers with heavy equipment such as forklifts and large floor polishers, then a designated spotter would be a good idea or as most of the places do, barricade off the area while the equipment is in use. Here you have a mix of people who may not have any idea what that beep beep beep means. They may think it is the cash register scanner. Also public places mean children. Children are not allowed on construction sites nor usually found wandering around a shop or warehouse. This would be my suggestion; if the area is open to the public then a designated spotter is required or the area of equipment operation is barricaded or signed and closed to the public, but isn't this about what we are doing already?"</p>	<p>visibility due to weather conditions (e.g., heavy fog, heavy snow); or work being done after dark without proper lighting.</p> <p>A number of Commenters may be under the impression that because a vehicle has a reverse signal alarm, it automatically would be considered to have an obstructed view to the rear and be covered by the proposed regulation. That is not the case. The following additional guidance has already been provided by Department personnel in interpreting the language of the proposed regulation:</p> <p>"...will a Lowe's truck delivering a refrigerator to a model home under construction be covered?"</p> <p>Response: Although I have seen different types and sizes of Lowes' trucks, any delivery truck operated on behalf of an employer will be covered under the proposal if there is no access to look out a rear window of the vehicle, as the dangers present are the same. If the vehicle is essentially a pick-up truck or flatbed with a refrigerator sitting in the back, and the cargo is completely blocking the rear window of the truck thereby creating a blind spot, then that would constitute an obstructed view to the rear and the truck would be covered by the proposed regulation."</p> <p>"What about pick-up trucks with shells?"</p> <p>Response: With the exceptions noted in the definition for "obstructed view to the rear" such as "damaged windows", as long as the shell has a front and rear window that are not obstructed and they allow the driver to look directly out the rear window of the truck, then the truck would not have an obstructed view to the rear and would not be covered by the proposed regulation."</p> <p>"You asked whether forklifts, pick-up trucks, cars, vans, tractor-trailers and powered industrial trucks are covered by the proposed regulation.</p> <p>Response: Generally, any truck where the driver can see directly behind the vehicle at ground level by looking through a rear</p>
--	---	--

<p>4. Ms. Camella Megatiotis, FSAI (4/18/08)</p>	<p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Megatiotis wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries to the designated observers/ground guides:</p> <p>“I fully support the decision to have backup alarms on none highway use equipment but to require a spotter? I feel this will create a bigger problem. Spotters behind every piece of equipment on a project site would mean additional personal on the ground. I believe you would see an increase of persons being injured on construction sites if this change occurs.”</p>	<p>view mirror, or by turning around and looking out the rear window/opening would not be considered to have an obstructed view to the rear. Of the examples you posed, the proposed regulation would not generally apply to fork lifts, pick-up trucks, cars, certain vans, etc., as long as they did not have an “obstructed view to the rear” as defined in the regulation and currently by OSHA. As noted in the regulation, there are certain exceptions to this general rule (e.g., damage to windows/mirrors, restricted visibility due to weather conditions or work being done after dark without proper lighting).</p> <p>On the other hand, certain tractor trailers pulling a large enclosed trailer, and vans with no or blocked/obstructed back windows, would be covered because they would be considered to have an obstructed view to the rear.“</p> <p>Agency Response: See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p>
<p>5. Mr. William A. McClellan, Jr., Pinnacle Construction & Development Corp. (4/22/08)</p>	<p>Mr. McClellan wrote in opposition to parts of the regulation expressing the concern that the regulation is an over-reaction to the 15 [construction] fatalities cited from 1992 through 2005:</p>	<p>Agency Response: Overall, there have been 29 reverse signal operation fatal accidents in Virginia from 1992 to 2007 (20 in construction and 9 in general industry).</p> <p>The statistics quoted by Mr. McClellan in</p>

<p>6. Mr. Mike Weakley, Safety Manager, Marvin V. Templeton & Sons, Inc. (4/22/08)</p>	<p>“Reviewing fatality statistics in the U. S.:</p> <ul style="list-style-type: none"> - There were an estimated 6,289,000 car accidents in the US in 1999 resulting in about 3.4 million injuries and 41,611 people killed. - The total number of people killed in highway crashes in 2001 was 42,116, compared to 41,945 in 2000. - An average of 114 people dies each day in car crashes in the U.S. - On average, 90 people are killed every year in the U.S. by lightning. <p>The number of accidents potentially affected by the proposed changes to the reverse signal operation requirements is minimal. Also, as we understand the proposal, it could be interpreted to require the assignment of an observer to each piece of equipment on the job site. We feel this is an unfair burden to place on the industry and respectfully request the proposal be dropped.”</p> <p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Weakley wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries, and Commenter 3 with regard to what constitutes an obstructed view to the rear:</p> <p>“It seems to me that as written this proposal would require Rollers (including asphalt rollers) and Rubber tire loaders (including skid steer loaders) that would be classified as "covered vehicles" to meet all of the requirements of this proposal. That would mean that they would either need to be equipped with cameras (this is not cost effective and would be a maintenance nightmare in a lot of applications) or have a trained spotter (not very safe or cheap when this equipment by back only a few feet at a time and may back several hundred times a shift) or the operator would have</p>	<p>support of his contention that the proposed regulation should be dropped cannot be relevantly compared to the VOSH reverse signal operation fatality statistics, unless he can provide a way to correlate the two sets of data. For instance, there are obviously exponentially more people exposed to car accidents on a daily or yearly basis in the United States, resulting in many more injuries and fatalities, then there are workers exposed to vehicles operating in reverse with an obstructed view to the rear in Virginia for either time period. The injury and fatality statistics for are not comparable unless you can develop some sort of rate of accidents or fatalities per so many people exposed.</p> <p>Mr. McClellan also expressed concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in increased expenses for employers. See the Department’s response to Commenter 2.</p> <p>Agency Response: See the Department’s response to Commenter 3 on the issue of what constitutes an obstructed view to the rear. Rollers would typically not be considered to have an obstructed view to the rear because the operator can normally turn his head and look behind his vehicle through an opening in his cab – in fact many rollers don’t even have a cab, so there could be no obstruction that could interfere with the driver’s ability to look behind the vehicle as he was traveling in reverse. Rubber tire loaders as well normally have a glass enclosed cab that allows the driver to turn his head and look out the rear view window, so such vehicles would not normally be considered to have an obstructed view to the rear. Skid steer loaders, depending on the design, may or may not be considered to have an obstructed view to the rear, depending on the location of the driver’s seat and any rear view window that the driver can look out of.</p> <p>See the Department’s response to Commenter 2’s concern that the requirement to have a designated</p>
---	---	---

<p>7. Mr. D.S. Kemp, Training Director, JAC, Joint Apprenticeship & Training Program, Operating Engineers, Local No. 147 (4/25/08)</p>	<p>to get out of or down from the equipment to insure that no one would get in the path of the equipment a day (same note as for a spotter, unless you are the person getting in and out or off and on the equipment several times a day increasing the chance of slip, trip and fall as well as back and other injuries). This proposal needs to be taken back to the table and reviewed as for all "covered vehicles" and their possible job functions so that it can be determined both what is reasonable and what is safe, remembering that putting a trained spotter on the ground may put another person in harms way. This would be especially true if it required placing a spotter which would be an additional person in a work zone. This would be just one more potential person for an errant vehicle to run into."</p> <p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Kemp wrote in support of the proposed regulation commenting that:</p> <p>"As operating engineers we drive and operate commercial trucks and heavy equipment on construction sites and industrial plants all across the state. We are in support of the ... Regulation...as proposed. We feel that this will give employees a more healthful and safe work environment and will be cost effective for the employers."</p>	<p>observer/ground guide could result in additional injuries.</p> <p>Agency Response: None.</p>
<p>8. Mr. John Roland, Director of Engineering and Environmental Affairs, Virginia Asphalt Association (5/9/08)</p>	<p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Roland wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide could result in increased injuries to employees and expense to employers:</p> <p>"Our industry is, as I'm sure you know, heavily involved in highway transportation with extensive activities within work zones involving numerous vehicles that must back up many times in the paving and road construction</p>	<p>Agency Response: See the Department's response to Commenter 2's concern that the requirement to have a designated observer/ground guide could result in increased expenses to employers.</p> <p>See the Department's response to Commenter 2's concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p> <p>With regard to Mr. Roland's suggestion that an alternative approach could involve "sound sequencing" of alarm systems (e.g., changing the pitch or character of the alarm sound periodically), the Department</p>

<p>9. Mr. Jim Patterson, F. G. Pruitt, Inc. (5/9/08)</p>	<p>process. The new rule if imposed will create a number of logistics problems not to mention the added cost of having trained spotters or watchers involved in every backing operation (It is impractical and potentially unsafe to have vehicle drivers step out of the vehicle and look each time the vehicle backs up). The cost of building and maintaining Va.'s roads has dramatically increased over the last few years with what has happened to the cost of fuel and liquid asphalt as well as other materials. This regulation requiring both an alarm system and a spotter will be very costly to implement. Since the spotter can not have other responsibilities while performing the required safety task and given the number of backing operations typical on paving sites, there will basically have to be at least one additional paid employee hired to perform the spotter task on each job. Additional people in the work zone also creates its own set of potential hazards to those individuals.</p> <p>It's hard to argue against proposals that address employee safety as our industry views that as a top priority of concern. The fact is that backing operations do have a history of causing accidents and it is probably important to do something in this area. Several suggestions to consider as an alternative to the current proposal which we believe might be more cost effective are listed below:</p> <ol style="list-style-type: none"> 1. Require "sound sequencing" alarm systems that allows the warning device to change pitch or character periodically so that workers don't become accustomed to hearing the same warning sound over and over again and basically not react to the repetitive noise in the work zone. 2. Beef up training requirements for personnel in work zones to help increase awareness of the hazards involved. <p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Patterson wrote in opposition to</p>	<p>agrees that alarms designed in that fashion could help to avoid the hazard of employees becoming so accustomed to the sound of reverse signal alarms that they ignore or "tune them out." However, because such a proposal would involve a product (alarms) which are distributed in interstate commerce, the Board would have to comply with Va. Code §40.1-22(5), which states in part:</p> <p style="padding-left: 40px;">"Such standards when applicable to products distributed in interstate commerce shall be the same as federal standards unless deviations are required by compelling local conditions and do not unduly burden interstate commerce."</p> <p>With regard to Mr. Roland's suggestion that an alternative approach could involve better training requirements for personnel in work zones, the original proposed regulation does include training requirements for drivers and designated observers/ground guides. The Department is also recommending that additional training provisions be added to the revised proposed regulation for personnel in work zones (see section VIII, below). Finally, the Department plans to prepare and make available to employers a training program that could be used to meet the training requirements contained in the proposed regulation. The availability of a free training program should help to alleviate some cost concerns.</p> <p>Agency Response:</p> <p>See the Department's response to Commenter 2's concern that the</p>
---	---	--

	<p>parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries and expense, and Commenter 3 with regard to what constitutes an obstructed view to the rear:</p> <p>“Currently all of our equipment utilizes back up alarms per regulation. We do not employ spotters except in specific situations where they are needed or required. We purposely limit or exclude employees from being on the ground in areas where heavy equipment is operating unless their presence is a fundamental part of the work. This new regulation would in essence require us to double our work force and introduce employees into dangerous places they previously did not need to be.</p> <p>There is a portion of the regulation that says if you do not have spotters, the employee can disembark the vehicle and look for themselves. Please consider just one example of a large earth mover (scraper). The operator may back this machine 150 times or more in a given day. He normally works in an area where no employee is on the ground. He is strapped in 10' off of the ground. He would be required to stop the machine, lower all implements, remove his seatbelt, climb 10' down (often in wet or muddy conditions), walk approximately 100' one way and then reverse this entire procedure getting back on. The employee would never be able to physically stand this, it would not be safe and the production he would lose would cause huge economic impacts. Mobile vehicles such as delivery trucks and dump trucks would all be required to have 2 people in the vehicle under this regulation. Again, lacking two people, all of the above adverse conditions would still be in effect even for these vehicles.</p> <p>The regulation allows for video monitoring. Our equipment does not employ this technology. Furthermore much of our fleet has open cabs subject</p>	<p>requirement to have a designated observer/ground guide could result in increased expenses to employers.</p> <p>See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p> <p>See the Department’s response to Commenters 3 and 6 on the issue of what constitutes an obstructed view to the rear. Mr. Patterson mentions scrapers and many of their “open cab” vehicles as vehicles they own that would be covered by the regulation. Without any photos or video to view, the Department would consider many scrapers and many open cab construction vehicles to not have an obstructed view to the rear and not be covered by the standard because the driver can see directly behind the vehicle at ground level by looking through a rear view mirror, or by turning around and looking out the rear window/opening. In addition, according to federal OSHA interpretations, vehicles with rotating cabs are not considered to have an obstructed view to the rear since the operator can rotate the cab in the direction he is traveling.</p> <p>With regard to Mr. Patterson’s suggestion that an alternative approach could involve better training requirements for personnel, the original proposed regulation does include training requirements for drivers and designated observers/ground guides. The Department is also recommending that additional training provisions be added to the revised proposed regulation for personnel in work zones (see section VIII, below). Finally, the Department plans to prepare and make available to employers a training program that could be used to meet the training requirements contained in the proposed regulation. The availability of a free training program should help to alleviate some cost concerns.</p>
--	---	---

<p>10. Mr. Daniel M. Minnix, Corporate Safety Director, The Branch Group, Inc. (5/9/08)</p>	<p>to weather and vandalism. This is a costly and impractical solution for our type work.</p> <p>The regulation states localities will not be particularly affected. Counties such as Henrico County who maintain their roads will incur all of the above costs and undue hardships. How can it state there is no effect? VDOT will also be impacted. Given the current condition of Virginia roads and our budget problems, we must question where the money will come from to pay for implementing this regulation.</p> <p>The regulation states there are no other options, yet it does not mention, detail or provide any method or steps taken to arrive at this statement.</p> <p>The above only represents only a small part of the adverse impact of this regulation as written. We encourage you to carefully consider these impacts. Setting aside the economic impacts, if we knowingly pass regulations which put employees in danger, there is something terribly wrong with the system. We support safety and have a long track record to back this up. We agree becoming complacent when it comes to safety can lead to accidents. We agree and would support any and all additional training as mentioned in this regulation. We would encourage you to consider pushing this training before we change something that may not be broken.</p> <p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Minnix wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries:</p> <p>“First, on a large project it is unlikely that each equipment operator will be willing to make the determination that no employees will enter the backing</p>	<p>Agency Response: See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p>
--	--	--

<p>11. Mr. Steven C. Vermillion, Chief Executive Officer, Associated General Contractors of Virginia, Inc. (5/12/08)</p>	<p>zone. This being the case, if one spotter will be in the area each piece of equipment will then be required to have a spotter.</p> <p>As a result, we have not introduced multiple employees into an area where there would likely have been none, and are now exposing multiple employees to a hazard that they would not have otherwise been exposed to, in effect significantly increasing our chances of a backing accident. Instead of having multiple pieces of equipment operating on a jobsite, we now have multiple pieces of equipment intertwined with multiple employees and I shutter to consider the consequences.</p> <p>Our second concern relates to operator diligence. We believe that equipment operators will be come less diligent when there is a spotter present and that this casual attitude will eventually become normal behavior, thereby creating another more significant hazard.”</p> <p>Mr. Minnix wrote in support of a requirement that all employees wear high visibility apparel around moving equipment.</p> <p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Vermillion wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries and expense: On behalf of the members of the Associated General Contractors of Virginia, please be advised that we are strongly opposed to the new requirement as drafted. We believe it will be extremely costly, and will not necessarily result in safer worksites. Our concerns are detailed below.</p> <p><u>Specific Concerns</u></p> <p>As originally proposed, we believe that</p>	<p>Agency Response: See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in increased expenses to employers.</p> <p>See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p> <p>With regard to Mr. Vermillion’s concern that vehicle owner-operators or UPS drivers making deliveries to jobsites, Mr. Vermillion is correct that there some jurisdictional issues. If the owner-operator is a sole owner of the company (not incorporated, not a partnership), and has no employees, then VOSH laws, standards and regulations do not apply. While VOSH does have a multi-employer</p>
---	---	--

	<p>additional employees would have to be added in most cases to serve as observers (one per vehicle). And if these observers are required to maintain visual contact with the operator, we are particularly concerned that they may be in more danger than would otherwise be the case. At least three of the fatalities cited as justification for the regulation were observers. We believe this change adds more people to the “danger zone” behind vehicles and will likely result in additional fatalities. This is especially true if the observer is working behind a skid steer loader, for instance.</p> <p>In terms of cost, let’s just consider some numbers. First, let’s assume that this requirement will require observers for 6,000 pieces of equipment at any given time. (There are more than 30,000 registered contractors in the Commonwealth. If we assume just 10% regularly utilize equipment that would fall under these regulations, and each of these firms has two pieces of equipment that would require observers.)</p> <p>Assuming the observers would be paid about the same as laborers, the cost of this proposal to Virginia employers would be more than \$14 million per year (6,000 observers times 2,000 hours times \$12.00 (\$10 hourly wage plus 20% burden for taxes and benefits). Obviously these numbers are just estimations. We actually believe that the impact may be greater, but this example demonstrates our point.</p> <p>....</p> <p>We are also concerned about vehicle owner-operators making deliveries to jobsites. First off, we are not certain if these individuals are even subject to VOSH regulations since they are sole proprietors with no employees. Regardless, you could have an instance where an independent operator who has not been trained makes a delivery to the jobsite and is cited for non-compliance. The controlling contractor would likely be cited, too under the multi-employer policy. Considering how the industry operates for the delivery of crushed stone from a quarry, for instance, this could be a problem. Or, for that matter,</p>	<p>worksite citation policy, it does not use it to enforce training provisions in regulations. So, if the sole-ownership vehicle operator/owner was not trained in the proposed regulation, VOSH would not cite the general contractor for that lack of training.</p>
--	--	---

<p>12. Mr. Tom Witt, Engineer Director, Virginia Transportation Construction Alliance (5/13/08)</p>	<p>a UPS truck making a delivery at the jobsite could be subject to this requirement.</p> <p>The end result could conceivably be to require the addition of employees at all possible entrances to the jobsite to turn away any drivers who have not been trained. Again, extra expense for the contractor....very little improvement in jobsite safety.</p> <p>....</p> <p><u>Recommendation</u></p> <p>We suggest that the proposed regulation be modified as we discussed on April 16 to provide training for operators and observers to help them operate in a safe manner. We suggest at this point that the training be optional to see if it is effective. Beyond that, we suggest that no other requirements be changed.”</p> <p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Witt wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries and expenses to employers:</p> <p>“On the surface VOSH’s proposed language appears to be an obvious improvement to significantly reduce reverse operation incidents. However, the small but significant changes to the current language have the potential to cause more problems on the jobsite [than] it is intended to prevent.</p> <p>We respectfully request that you carefully reconsider the original intent of the proposed changes and not adopt the new requirement that requires both a designated spotter <u>and</u> a reverse signal alarm during operation of the vehicle.</p> <p>....</p> <p>My members are primarily concerned with the possibility of putting additional employees at risk as well as the impact</p>	<p>Agency Response: See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p> <p>See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in increased expenses to employers.</p>
--	--	---

<p>13. Mr. J. R. (Randy) Bush, CAE, Virginia Forest Products Association (5/14/08)</p>	<p>on efficiency and costs.”</p> <p>Comment on ORIGINAL PROPOSED REGULATION: Mr. Bush wrote in opposition to parts of the regulation expressing concerns similar to Commenter 2 that the requirement to have a designated observer/ground guide in the construction industry could result in additional injuries and expenses to employers:</p> <p>“When the initial proposal as published in the Register was reviewed, there were a number of concerns our organization identified. While the meeting of stakeholders on April 16th helped to clarify and mediate some of our concerns (<i>should the suggested changes generated from the April 16th meeting be implemented</i>), a number of them still exist.</p> <p>One major concern is that a requirement for additional workers mandated to implement the use of both reverse audible signals and “ground guides” may well serve as a safety hazard in itself by exposing more individuals to potential harm. This is especially true when there may be multiple instances of “ground guides” where a number of operations may be taking place simultaneously.</p> <p>While worker safety is of paramount importance, in reviewing the Reverse Signal accidents record, it appears that some of the incidents would not have been prevented even through a change in the regulation.</p> <p>Finally, because of the potential for placing new and significant liability on equipment operators or other company employees should any of the proposed requirements be adopted, we suggest that an emphasis on safety training with regard to procedures associated with backing up vehicles covered by this section might provide equal, if not more favorable, results than simply increasing proscriptive requirements as is being proposed.”</p>	<p>Agency Response: See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in increased expenses to employers.</p> <p>See the Department’s response to Commenter 2’s concern that the requirement to have a designated observer/ground guide could result in additional injuries.</p> <p>With regard to Mr. Witt’s suggestion that an emphasis be placed on safety training requirements for personnel, the original proposed regulation does include training requirements for drivers and designated observers/ground guides. The Department is also recommending that additional training provisions be added to the revised proposed regulation for personnel in work zones (see section VIII, below). Finally, the Department plans to prepare and make available to employers a training program that could be used to meet the training requirements contained in the proposed regulation. The availability of a free training program should help to alleviate some cost concerns.</p>
---	---	--

<p>*****</p> <p>Mr. Steven C. Vermillion, Chief Executive Officer, Associated General Contractors of Virginia, Inc. (4/24/08)</p>	<p>*****</p> <p>Comment on REVISED PROPOSED REGULATION: “1. On page 8, I understand that you need some specificity with regard to crossing the path of a covered vehicle, but I think 100 feet is excessive in many instances. For example, if it is a small site and a loader is operating "in the middle", does this mean workers might have to leave the site in order to go to another portion of the project? In other words, a flat 100 foot rule is a problem. Perhaps it should say in the immediate vicinity (and I know this is subject to interpretation, but it would cause fewer problems).</p> <p>2. In drafting our comments to you for sharing with the Board, should we treat this draft as a replacement for the original proposal, or do we need to comment on each?</p> <p>3. Re hourly rates, based on the information we have (others may have better info), you should probably figure, on average, about \$20 per hour for operators, plus fringes, and \$15 per hour, plus fringes, for laborers. But please note...the training cost will be minimal as compared to the cost of the observer.”</p>	<p>*****</p> <p>Agency Response: With regard to comment 1-1, the Department has inserted the phrase “in close proximity” into redesignated sections 16 VAC 25-97-40.A.5 and 16 VAC 25-97-40.C. The Department has no response to comments 1-2 and 1-3.</p>
<p>2. Mr. Terry Pruitt, Precon Construction Company (4/29/08)</p>	<p>Comment on REVISED PROPOSED REGULATION: 1. “Thank you for the revisions, having reviewed these changes, I am much more comfortable with the proposed rules; with one exception. Please refer to your page 8, paragraph C "Except as provided for in subdivisions A. and B. of 16VAC25-97-40..." I can foresee that it may not always be possible to provide at least 100' safe distance from the rear of a backing vehicle. In the alternative, I suggest language to the effect that the person crossing the path of a backing vehicle only do so, after determining that the speed and distance of the backing vehicle allow sufficient time and space</p>	<p>Agency Response: With regard to comment 2-1, the Department has eliminated the “100’ safe distance” requirement from 16 VAC 25-97-40.C., and inserted the phrase “in close proximity” into redesignated sections 16 VAC 25-97-40.A.5 and 16 VAC 25-97-40.C.</p> <p>The Department has no response to comment 2-2.</p>

	<p>Section C, creates a blanket prohibition on both the ground guide and all employees such that neither shall “enter or cross the path “of a covered vehicle while it is operating in reverse. At a minimum the language should be consistent in all places. Most importantly, as was pointed out in the 4/16 meeting, there are certain applications such as in a paving train, when compliance under this proposed language simply is unrealistic. Per discussions at the meeting we believe that the words “when reasonable” or similar language need to be added to allow for unique industry circumstances.</p> <p>[6.] Specific industry representatives from our three associations have also indicated to me that they may have additional unique circumstances that require the use of a “reasonable” standard, or perhaps an exemption from the proposed regulations. For example, loading a large generator or building materials onto the deck of pickup truck (that obstructs the rear view) and moving that load, in reverse for at least some of the time, to a different job location. In these instances the driver certainly should be responsible for backing up in a safe manner, but to require the addition of a back-up alarm on a vehicle for infrequent or one-time usage that would trigger compliance with the proposed regulations seems onerous, expensive, and unnecessary. We would, therefore, urge that language be added to the proposed regulations which would not require compliance in these situations.</p> <p>[7.] Finally, because of the potential for placing new and significant liability on equipment operators or other company employees should any of the proposed requirements be adopted, we suggest that an emphasis on safety training with regard to procedures associated with backing up vehicles covered by this section might provide equal, if not more favorable, results than simply increasing proscriptive requirements as is being proposed.</p> <p>On behalf of the VUHCC and our 350</p>	<p>training requirements contained in the proposed regulation.</p>
--	---	--

<p>5. Mr. Thomas Moline, Safety Director, Whitehurst Transport, Inc., Whitehurst Paving Company, Inc. (5/12/08)</p>	<p>members, I want to thank you and the Board for your willingness to both allow additional time to review this proposal to exceed federal OSHA requirements, and for arranging the 4/16 industry meeting of interested parties. With the adoption of the suggestions offered in this correspondence, VUHCC would have no objections to adoption of the proposal.” “Our average pay for a driver is \$15 [per] hour and for the flagger is \$9.”</p> <p>Comment on REVISED PROPOSED REGULATION: “Our average pay for a driver is \$15 [per] hour and for the flagger is \$9.”</p>	<p>Agency Response: None.</p>
<p>6. Mr. Tom Witt, Engineer Director, Virginia Transportation Construction Alliance (5/13/08)</p>	<p>Comment on REVISED PROPOSED REGULATION: “I certainly think that the summary of proposed changes resulting from our April 16th meeting are improvements and will make the changes more palatable. However, I still do struggle with the concerns that the changes may not gain the desired effect but have the potential to cause other unintended consequences. My members are primarily concerned with the possibility of putting additional employees at risk as well as the impact on efficiency and costs. “However, if it is determined that the changes are necessary VTCA encourages the inclusion of the changes proposed during the April 16th stakeholder meeting reflected in your summary email dated April 23, 2008. VTCA recommends the following additional changes to the proposed language:</p> <ul style="list-style-type: none"> • [1.] Section 16 VAC 25-97-40: Delete item 1 “Have no other assigned duties;” to clarify the intent that the designated observer is allowed to have 	<p>Agency Response: With regard to comment 6-1, the listed section has been deleted from the revised proposed regulation text. With regard to comment 6-2, the recommended language has been added to the revised proposed regulation text.</p>

<p>7. Mr. Steven C. Vermillion, Chief Executive Officer, Associated General Contractors of Virginia, Inc. (5/12/08)</p>	<p>other “assigned duties” as long as they are not performed during reverse operations. Item 2 in the same section is sufficient to convey the requirement without confusion that item 1 introduces.</p> <ul style="list-style-type: none"> • [2.] Section 16 VAC 25-97-40: Modify Section B to read: “<i>When using a designated observer/ground guide no driver of a covered vehicle shall operate...</i>”. This clarifies that when a ground observer is not being utilized (as provided in the proposed language allowing visual inspection) that visual contact is not necessary (or possible).” <p>Comment on REVISED PROPOSED REGULATION:</p> <p>[1.] “While the changes discussed on the 16th to section VAC 25-97-30 to allow the operator to determine that no employees are in the path of the covered vehicle while seated in the vehicle would be a major improvement, the requirement still could be a problem for some types of equipment that frequently operate in reverse, such as a front end loader or skid steer loader.</p> <p>[2.] We are also concerned about personal liability for operators when they make a determination that no employees are or will be in the path of the machine. While they may not be subject as an individual to a VOSH citation, we believe they may be assuming some potential liability.”</p>	<p>Agency Response: With regard to comment 7-1, see the Department’s response to Commenter 3 from the 30-day comment period on the issue of what vehicles would be considered to have an obstructed view to the rear. As noted in that response, “a number of Commenters may be under the impression that because a vehicle has a reverse signal alarm, it automatically would be considered to have an obstructed view to the rear and be covered by the proposed regulation. That is not the case.” A front end loader (with only a bucket attachment on the front of the vehicle and no attachment on the back) that has a large glass enclosed cab that allows the operator to see directly behind the vehicle through the rear glass, would not be considered to have an obstructed view to the rear. As noted in the regulation, there are certain exceptions to this general rule (e.g. damage to windows/mirrors, restricted visibility due to weather conditions or work being done after dark without proper lighting).</p> <p>With regard to comment 7-2, as noted previously, the newly added language in 16 VAC 25-97-30.A.2.b. (“Before operating the covered vehicle in reverse, the driver visually determines that no employee is in the path of the covered vehicle.”), is based on a current provision from the federal OSHA Logging Standard, 1910.266. The Department is not aware of any liability issues with regard to the Logging Standard provision that did not already exist in</p>
--	--	--

<p>8. Mr. J. R. (Randy) Bush, CAE, Virginia Forest Products Association (5/14/08)</p>	<p>Comment on REVISED PROPOSED REGULATION: “Even with suggested changes from the April 16 stakeholders meeting, concerns still lie with the level of “gray” areas (<i>i.e. those subject to interpretation</i>) that may provide confusion in the implementation of the proposed regulation. While one person may interpret language one way, another may view it differently.</p> <p>This interpretation is important since requiring additional employees can create a significant financial impact, especially when all costs, potential benefits, and potential new safety hazards are considered.</p> <p>While we do not feel that a change in the current regulation is warranted, if changes in the standard are made we feel the adoption of modifications and clarifying language from the April 16th stakeholders meeting should be implemented. In particular, the following suggested modifications are particularly critical:</p> <p>[1.] 16VAC 25-97-30 adding the following language - <i>or 2.b. Before operating the covered vehicle in reverse, the driver determines that no employee is in the path of the covered vehicle.</i></p> <p>This suggested change above should include appropriate implementation guidance, such as consideration of employee training regarding safe “no-go” zones and the ability for operators to scan affected areas upon approach.</p> <p>NEW LANGUAGE IN B. IN</p>	<p>statutory or common law. If an accident occurs “off road” then VOSH regulations will apply as will existing Workers’ Compensation laws and regulations. If an accident occurs on the highway or a street, the same laws and regulations will apply, along with existing traffic regulations that are enforced by police and sheriff’s department around the state.</p> <p>Agency Response: With regard to comments 8-1, 8-2 and 8.3, the requested language is included in the revised proposed regulation text.</p>
--	---	--

	<p>RESPONSE TO 4.16.08 MEETING: <i>“at a reasonable and economically feasible cost”.</i></p> <p>[2.] Modification to the new language creating Section B adding a “reasonable time” provision.</p> <p>[3.] Modification to the new language creating Section C by adding a “use of spotter” provision that would allow the vehicle to remain in service.</p>	
--	--	--

Family impact

Please assess the impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one’s spouse, and one’s children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

This proposed regulation has no potential impact on the institution of the family or family stability.

Detail of changes

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail all new provisions and/or all changes to existing sections.

If the proposed regulation is intended to replace an emergency regulation, please list separately (1) all changes between the pre-emergency regulation and the proposed regulation, and (2) only changes made since the publication of the emergency regulation.

For changes to existing regulations, use this chart:

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
16VAC25-90-1910.269 (p)(1)(ii)		Electric Power Generation, Transmission, and Distribution; Mechanical Equipment No vehicular equipment having an obstructed view to the rear may be operated on off highway jobsites where any employee is exposed to the hazards created by the moving vehicle unless:	Electric Power Generation, Transmission, and Distribution; Mechanical Equipment No vehicular equipment having an obstructed view to the rear may be operated on off highway jobsites where any employee is exposed to the hazards created by the moving vehicle unless:

<p>16VAC25-175-1926.601 (b)(4)</p>		<p>(i) The vehicle has a reverse signal alarm audible about the surrounding noise level, or;</p> <p>(ii) The vehicle is backed up only when a designated employee signals that it is safe to do so.</p> <p>Motor Vehicles</p> <p>§1926.601 (b)(4): No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:</p> <p>(i) The vehicle has a reverse signal alarm audible above the surrounding noise level or;</p> <p>(ii) The vehicle is backed up only when an observer signals that it is safe to do so.</p>	<p>(i) The vehicle has a reverse signal alarm audible about the surrounding noise level, or;</p> <p>(ii) The vehicle is backed up only when a designated employee signals that it is safe to do so.</p> <p><u>See Reverse Signal Operation Safety Requirements for Motor Vehicles, Machinery and Equipment in General Industry and the Construction Industry, 16 VAC 25-97.</u></p> <p>Motor Vehicles</p> <p>§1926.601 (b)(4): No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:</p> <p>(i) The vehicle has a reverse signal alarm audible above the surrounding noise level or;</p> <p>(ii) The vehicle is backed up only when an observer signals that it is safe to do so.</p> <p><u>See Reverse Signal Operation Safety Requirements for Motor Vehicles, Machinery and Equipment in General Industry and the Construction Industry, 16 VAC 25-97.</u></p>
<p>16VAC25-175-1926.602 (a)(9)(ii)</p>		<p>Material Handling Equipment</p> <p>§1926.602 (a)(9)(ii): No employer shall permit earthmoving or compacting equipment which has an obstructed view to the rear to be used in reverse signal unless the equipment has in operation a reverse signal alarm distinguishable from the surrounding noise level or an employee signals that it is safe to do so.</p>	<p>Material Handling Equipment</p> <p>§1926.602 (a)(9)(ii): No employer shall permit earthmoving or compacting equipment which has an obstructed view to the rear to be used in reverse signal unless the equipment has in operation a reverse signal alarm distinguishable from the surrounding noise level or an employee signals that it is safe to do so.</p> <p><u>See Reverse Signal Operation Safety Requirements for Motor Vehicles, Machinery and Equipment in General Industry and the Construction Industry, 16 VAC 25-97.</u></p>
<p>16 VAC 25-175-</p>		<p>Mechanical Equipment</p>	<p>Mechanical Equipment</p>

<p>1926.952 (a)(3)</p>	<p>16VAC25-97</p> <p>16VAC25-97-10</p> <p>16VAC25-97-30</p>	<p>§1926.952 (a)(3): No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:</p> <p>(i) The vehicle has a reverse signal alarm audible above the surrounding noise level or;</p> <p>(ii) The vehicle is backed up only when an observer signals that it is safe to do so.</p>	<p>§1926.952 (a)(3): No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:</p> <p>(i) The vehicle has a reverse signal alarm audible above the surrounding noise level or;</p> <p>(ii) The vehicle is backed up only when an observer signals that it is safe to do so.</p> <p><u>See Reverse Signal Operation Safety Requirements for Motor Vehicles, Machinery and Equipment in General Industry and the Construction Industry, 16 VAC 25-97.</u></p> <p><u>SINCE THE PROPOSED STAGE SUBMITTED ON APRIL 5, 2007, THE FOLLOWING CHANGES HAVE BEEN MADE:</u></p> <p>REVERSE SIGNAL OPERATION SAFETY REQUIREMENTS FOR MOTOR VEHICLES, MACHINERY AND EQUIPMENT IN GENERAL INDUSTRY AND THE CONSTRUCTION INDUSTRY.</p> <p>16VAC25-97-10. Applicability.</p> <p>This chapter shall apply to all general industry and construction industry vehicles, machinery or equipment capable of operating <u>traveling</u> in reverse and with an obstructed view to the rear (hereafter referred to as “covered vehicles”), whether intended for operation in off-road work zones or over the road transportation or hauling.</p> <p>16VAC25-97-30. Covered vehicle requirements.</p> <p><u>A.</u> No employer shall use <u>operate</u> any covered vehicle <u>in reverse</u> unless:</p> <p><u>2.a.</u> The covered vehicle is <u>operated in reverse</u> backed-up only when a designated observer or ground guide</p>
------------------------	---	---	---

			<p>signals that it is safe to do so; <u>or</u></p> <p><u>2.b. Before operating the covered vehicle in reverse, the driver visually determines that no employee is in the path of the covered vehicle.</u></p> <p><u>Rationale:</u> New language in 2.b. was added to address potential cost issues associated with the exemption in the original proposed regulation from use of a designated observer/ground guide that would have allowed drivers to get out of the vehicle to determine that no employees are in the backing zone and that it is reasonable to expect that no employees will enter the backing zone. The change would also provide a level of consistency by providing drivers of covered vehicles in construction and general industry the same reverse operation option as provided drivers in the logging industry.</p> <p>This change would also help to address situations like a driver pulling into a large shipping terminal and having to back-up to a loading dock – the change would allow the driver as he pulls in to determine that no employees are in the back-up area and then continue with back-up without having to get out of the vehicle. The Department also considered concerns expressed by construction contractors that significant costs could be incurred by the delays on large road building projects where a constant flow of dump trucks could result in each driver having to stop his vehicle, exit the cab to check for employees in the back-up zone, re-enter the cab and proceed with reverse operations for hundreds of yards.</p> <p><u>CB. Covered vehicles that were not equipped with a reverse-signal alarm upon manufacture or were not later retrofitted with an alarm are exempt from subdivision A.1 of 16VAC25-97-30. If the manufacturer of the covered vehicle offered the employer a reverse signal alarm retrofit package at a reasonable and economically feasible cost and the employer did not have the retrofit package installed, this exemption does not</u></p>
--	--	--	---

	<p>16VAC25-97-30</p>		<p><u>apply.</u></p> <p><u>C. Where immediate correction is not feasible, covered vehicles equipped with a reverse signal alarm that is not operational or is not functioning properly shall be either:</u></p> <p><u>1. operated in reverse only when a designated observer or ground guide signals that it is safe to do so; or</u></p> <p><u>2. removed from service until the reverse signal alarm is repaired.</u></p> <p>Rationale: The new text was added to assure that malfunctioning reverse signal alarms are promptly repaired. A concern was expressed at the April 16th meeting about what a general contractor is supposed to do if an independent dump truck driver attempts to enter a road construction site with a malfunctioning reverse signal alarm. One option mentioned by a participant was to not allow the dump truck onto the work site. Department personnel agreed with that approach.</p> <p>Another concern was raised on the issue of what the Department would require if it was found that a back-up alarm stopped functioning after it was already on the work site (and the alarm had been properly functioning when it entered the work site). Department personnel indicated that in such a circumstance, and in light of it being impossible for the employer to comply with the reverse signal alarm portion of the regulation, it would be permissible to operate the vehicle with only a designated observer/ground guide, and that the revised proposed regulation would be changed to allow such operation. All agreed that the malfunctioning alarm is then to be fixed as soon as possible.</p> <p>A. D. Covered vehicles with operable video or similar technological capability used by the driver and capable of providing the driver to provide the driver with a full view behind the vehicle are exempt from subdivision 2- <u>A.2.a</u> of 16VAC25-97-30.</p>
--	----------------------	--	---

	<p>16VAC25-97-30</p> <p>16 VAC 25-97-40</p>	<p><u>Rationale:</u> This section was moved from the 16VAC25-97-60, Exemptions, section so that all coverage issues are addressed in one area. Text changes were made to clarify that the equipment has to be operable and used in order for the exemption to apply.</p> <p><u>E.</u> To the extent that any federal Department of Transportation (DOT) regulation applies to covered vehicles conflicts with this chapter, the DOT regulation shall take precedence.</p> <p><u>Rationale:</u> This changed section was moved from the 16 VAC 25-97-70., Applicability of Federal Regulations, section so that all coverage issues would be addressed in one area.</p> <p>16 VAC 25-97-40. Responsibilities while engaged in <u>reverse signal operation signaling</u> activities.</p> <p>A. While engaged in reverse signaling activities, <u>an employee is functioning as the designated observer/ground guide during reverse signaling activities (e.g., collecting tickets from drivers, giving verbal instructions to drivers, signaling to drivers once reverse operation of the covered vehicle has begun), the designated observer/ground guide shall:</u></p> <p><u>Rationale:</u> New language in A. In response to 4.16.08 meeting: “<i>an employee is functioning as the designated observer/ground guide during reverse signaling activities (e.g., collecting tickets from drivers, giving verbal instructions to drivers, signaling to drivers once reverse operation of the covered vehicle has begun), the designated observer/ground guide shall:</i>” .]</p> <p>The new text is to make clear that the provisions in A.1 – 8 only apply to employees while they are functioning as designated observers/ground guides for covered vehicles when the vehicles are operating in reverse. When the employees are not engaged as designated observers/ground guides, they are free to</p>
--	---	---

			<p>do other assigned work.</p> <p>1. Have no other assigned duties;</p> <p>2. 1. Not engage in any other activities unrelated to back-up operations other than those related to the covered vehicle being signaled;</p> <p>3. 2. Not use personal cellular phones, personal head phones or similar items that could pose a distraction for the designated observer/ground guide; and</p> <p>4. 3. Be provided with and wear during daytime operations a safety vest or jacket in orange, yellow, strong yellow green or fluorescent versions of these colors, reflective warning garments; and</p> <p>5. 4. Be provided with and wear during nighttime operations a safety vest or jacket with retroreflective material in orange, yellow, white, silver, strong yellow green or a fluorescent version of these colors and shall be visible at a minimum distance of 1,000 feet.</p> <p>6. 5. Not cross behind of in close proximity to a covered vehicle while it is operating in reverse;</p> <p>7. Only work from the driver's side of the covered vehicle;</p> <p><u>Rationale:</u> The new text was distributed to the group on April 23rd, asking that any comments to be provided by May 14th. As noted below, comments were received with regard to formerly designated A.1, as duplicative of A.2, and potentially confusing to employers; and formerly designated A.6 as being too rigid to allow employers some flexibility to address work site configurations.</p> <p>8. Avoid covered vehicle blind spots;</p> <p>9.-6. Always maintain <u>eye</u> visual contact with the driver of the covered vehicle while it is operating in reverse; <u>and</u></p>
--	--	--	--

		<p><u>10-7. Maintain a safe working distance from the covered vehicle.</u></p> <p><u>Rationale:</u> The above changes are added to address unsafe behaviors of designated observers/ground guides identified by the Department that have led to fatal accidents in the past. Violation of these requirements by a trained employee would normally constitute employee misconduct. The wording for the additional provisions comes from safety rules instituted by a Virginia employer following the death of their employee who was functioning as a designated observer/ground guide.</p> <p><u>B. When using a designated observer/ground guide, No driver of a covered vehicle shall operate travel in reverse unless they maintain constant visual contact with the designated observer/ground guide. If visual contact is lost, the driver shall immediately stop the vehicle until visual contact is regained and a positive indication is received from the designated observer/ground guide to restart back-up reverse operations.</u></p> <p><u>Rationale:</u> The new language at the beginning of the paragraph was submitted in response to the April 16th meeting and clarifies that this section only applies when the driver is using a designated observer/ground guide. The other changes approved by the group were non-substantive.</p> <p><u>C. Except as provided for in subdivisions A. and B. of 16VAC25-97-40, no employees shall not enter or cross the path in close proximity to of a covered vehicle while it is operating in reverse, unless they maintain a safe distance of not less than one hundred (100) feet from the rear vehicle.</u></p> <p><u>Rationale:</u> The new text was distributed to the group on April 23rd, asking that any suggested comments be provided by May 14th. Comments were received with regard to formerly designated 16VAC25-97-40.A.6. as being too rigid to allow employers some flexibility to address work site configurations. The commenters also noted that A.6. and</p>
--	--	--

		<p>A. Covered vehicles with video or similar technological capability to provide the driver with a full view behind the vehicle are exempt from subdivision 2 of 16 VAC25-97-30.</p> <p>B. Covered vehicles are exempt from subdivision 2 of 16 VAC 25-97-30 if the driver visually determines from outside the vehicle that no employees are in the backing zone and that it is reasonable to expect that no employees will enter the backing zone during reverse operation of the vehicle.</p> <p>C. Covered vehicles that were not equipped with a reverse signal alarm upon manufacture or were not later retrofitted with an alarm are exempt from subdivision 1 of 16 VAC 25-97-30. 16 VAC 25-97-70. Applicability of federal regulations. To the extent that any federal Department of Transportation (DOT) regulation applies to covered vehicles conflicts with this chapter, the DOT regulation shall take precedence.</p> <p>Rationale: Former items 16VAC25-97-60 and -70 were deleted and moved to 16 VAC 25-97-30 so that all coverage issues are addressed in one area.</p>
--	--	--