



PREPARED FOR
Virginia Department of Labor and Industry



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ECONOMIC IMPACT

PROPOSED STANDARD FOR INFECTIOUS DISEASE PREVENTION OF THE SARS- COV-2 VIRUS THAT CAUSES COVID-19

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1. Background

During the COVID-19 pandemic, the Commonwealth of Virginia was the first state to issue a mandatory COVID-19 Emergency Temporary Standard (ETS) establishing workplace safety and health requirements. The ETS, 16VAC25-220, was first published by the Virginia Safety and Health Codes Board (“Board”) and the Virginia Department of Labor and Industry (DOLI) with an effective date of July 27, 2020 and applied to all Virginia employers under the jurisdiction of the Virginia Occupational Safety and Health (VOSH) program. The ETS lapses on January 26, 2021.

The Board and DOLI are in the process of considering replacing the ETS with a permanent standard (16VAC25-220) which, if adopted, would be effective on or after January 27, 2021. This standard is designed to supplement and enhance existing Virginia Occupational Safety and Health (VOSH) laws, rules, regulations, and standards applicable directly or indirectly to SARS-CoV-2 virus or COVID-19 disease-related hazards.

Chmura Economics & Analytics (Chmura) was commissioned to conduct the economic impact analysis for the standard 16VAC25-220. Chmura understands there are several components to the economic impact analysis of the proposed regulation. The analysis will include the following elements:

- Number of businesses and other entities impacted, including the number of small businesses impacted
- Localities disproportionately impacted
- Projected number of persons and employment positions to be affected
- Projected costs to affected businesses, localities, or entities of implementing or complying with the standard, including training costs, costs for personal protective equipment, costs for installing physical barriers, etc.

Information from DOLI indicates that some items listed in this standard overlap with existing federal or state regulations, or governor’s executive orders issued during the COVID-19 pandemic. This economic impact analysis only assesses incremental cost to Virginia businesses.

As noted in this document, a number of the requirements with associated costs related to the Commonwealth’s response to the COVID-19 pandemic are contained in various Governor’s executive orders, including, most recently, Executive Order 72. To the extent that a requirement is included in both executive orders and the standard, DOLI does not consider the standard to impose any new cost burden on a covered locality or employer.

In addition, many of the costs associated with dealing with workplace hazards associated with COVID-19 are the result of requirements contained in current federal OSHA or VOSH unique standards and regulations already applicable to local governments, and therefore DOLI does not consider them to be new costs associated with adoption of the standard.

The following are federal OSHA identical and state unique standards and regulations applicable in the construction industry, agriculture industry, public sector maritime industry,¹ and general industry (“general industry” covers all employers not otherwise classified as construction, agriculture, or maritime) that can be used in certain situations to address COVID-19 hazards in the workplace:

General Industry

- 1910.132, Personal Protective Equipment in General Industry (including Workplace Assessment)
- 1910.133, Eye and Face Protection in General Industry
- 1910.134, Respiratory Protection in General Industry
- 1910.138, Hand Protection
- 1910.141, Sanitation in General Industry (including Handwashing Facilities)
- 1910.1030, Bloodborne Pathogens in General Industry
- 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories in General Industry

Construction Industry

- 1926.95, Criteria for Personal Protective Equipment in Construction
- 1926.102, Eye and Face Protection in Construction
- 1926.103, Respiratory Protection in Construction
- 16VAC25-160, Sanitation in Construction (including Handwashing Facilities)

Agriculture

- 16VAC25-190, Field Sanitation (including Handwashing Facilities) in Agriculture

Public Sector Maritime

- 1915.152, Shipyard Employment (Personal Protective Equipment)
- 1915.153, Shipyard Employment (Eye and Face Protection)
- 1915.154, Shipyard Employment (Respiratory Protection)
- 1915.157, Shipyard Employment (Hand and Body Protection)
- 1917.127, Marine Terminal Operations (Sanitation)
- 1917.92 and 1917.1(a)(2)(x), Marine Terminal Operations (Respiratory Protection, 1910.134)
- 1917.91, Marine Terminal Operations (Eye and Face Protection)
- 1917.95, Marine Terminal Operations (PPE, Other Protective Measures)
- 1918.95, Longshoring (Sanitation)
- 1918.102, Longshoring (Respiratory Protection)
- 1918.101, Longshoring (Eye and Face Protection)

¹ VOSH standards and regulations only apply to public sector maritime employers and employees. OSHA retains jurisdiction over private sector maritime employers and employees in Virginia.

Multiple Industries

- 16VAC25-220, Emergency Temporary Standard in General Industry, Construction, Agriculture and Public Sector Maritime
- 1904, Recording and Reporting Occupational Injuries and Illness in General Industry, Construction, Agriculture and Public Sector Maritime
- 1910.142, Temporary Labor Camps (including Handwashing Facilities) in Agriculture and General Industry
- 1910.1020, Access to Employee Exposure and Medical Records in General Industry, Construction, and Public Sector Maritime (excludes Agriculture)
- 1910.1200, Hazard Communication in General Industry, Construction, Agriculture and Public Sector Maritime
- 16VAC25-60-120 (General Industry), 16VAC25-60-130 (Construction Industry), 16VAC25-60-140 (Agriculture), and 16VAC25-60-150 (Public Sector Maritime),
 - The above standards provide that manufacturer's specifications and limitations are applicable to the operation, training, use, installation, inspection, testing, repair and maintenance of all machinery, vehicles, tools, materials and equipment, which can be used to apply to operation and maintenance of air handling systems in accordance with manufacturer's instructions.

In addition, Va. Code §40.1-51.1.A, provides that:

“ A. It shall be the duty of every employer to furnish to each employee safe employment and a place of employment that is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees and to comply with all applicable occupational safety and health rules and regulations promulgated under this title.”

Otherwise known as the “general duty clause” (the Virginia equivalent to §5(a)(1)) of the OSH Act of 1970), Va. Code §40.1-51.1.A can be used to address “serious” recognized hazards to which employees of the cited employer are exposed through reference to such things as national consensus standards, manufacturer’s requirements, requirements of the Centers for Disease Control (CDC), or an employer’s safety and health rules.

To the extent that the general duty clause could be used by DOLI to address COVID-19 workplace hazards to the same extent as and in the same manner as the standard were the standard not in effect, DOLI does not consider any of the costs associated with such use of the clause to be new costs associated with adoption of the standard.

2. Business Categorization

In the standard 16VAC25-220, different requirements apply to different businesses based on the “exposure risk level,” which is defined as an assessment of the possibility that an employee could be exposed to hazards or job tasks associated with the SARS-CoV-2 virus and the COVID-19 disease. In this standard, hazard and job tasks are divided into four risk exposure levels: very high, high, medium, and lower. However, since workplace standards for businesses with jobs having very high or high risks are the same (16VA25-220-50 applies to both risk levels), these two risk levels are grouped together in this study.

Very high exposure risk hazards or job tasks are those in places of employment with high potential for employee exposure to known or suspected sources of the SARS-CoV-2 virus (e.g., laboratory samples) or persons known or suspected to be infected with the SARS-CoV-2 virus, including, but not limited to, during specific medical, postmortem, or laboratory procedures.

High exposure risk hazards or job tasks are those in places of employment with high potential for employee exposure inside six feet with known or suspected sources of SARS-CoV-2, or with persons known or suspected to be infected with the SARS-CoV-2 virus that are not otherwise classified as very high exposure risk. Those businesses with such hazards and job tasks may include, but are not limited to, many healthcare delivery and support services, first responder services, medical transport services, and mortuary services.

Medium exposure risk hazards or job tasks are those not otherwise classified as very high or high exposure risk in places of employment that require more than minimal occupational contact inside six feet with other employees, other persons, or the general public who may be infected with SARS-CoV-2, but who are not known or suspected to be infected with the SARS-CoV-2 virus. Those businesses with such hazards and job tasks may include, but are not limited to, food processing, agriculture, manufacturing, education, retail, entertainment, food services, passenger transportation, and lodging.

Lower exposure risk hazards or job tasks are those not otherwise classified as very high, high, or medium exposure risk that do not require contact inside six feet with persons known to be, or suspected of being, or who may be infected with SARS-CoV-2. Employees in this category have minimal occupational contact with other employees, other persons, or the general public, such as in an office building setting; or are able to achieve minimal occupational contact with others through the implementation of engineering, administrative and work practice controls.²

As the standard notes, “It is recognized that various hazards or job tasks at the same place of employment can be designated as very high, high, medium, or lower exposure risk for purposes of application of the requirements of this standard. It is further recognized that various required job tasks prohibit an employee from being able to observe physical distancing from other persons.”

While the technical categorization of exposure risk is based on job tasks or job functions, Chmura uses the same category of risk levels to define business as well. In this study, any businesses with high-risk job tasks are classified as high-risk businesses, even if some job tasks in those businesses are of medium or lower risk. Other businesses are defined accordingly. In addition, to estimate the number of business and jobs impacted by 16VAC25-220, Chmura worked with

² Above definitions are from the document: 16VAC25-220, Revised Proposed Permanent Standard for Infectious Disease Prevention of the SARS-Cov-2 Virus that Causes COVID-19, DOLI, December 10, 2020.

DOLI to classify different industries into the above four risk levels based on the North America Industry Classification System (NAICS) code.

Chmura uses the latest employment and establishment data to estimate number of businesses that may be affected by the regulation. The latest establishment data were for the year 2019, while the latest employment data were for the four quarters ending with the second quarter of 2020.³ This economic impact analysis also estimates the number of small businesses—defined as those with fewer than 500 employees or six million dollars of annual revenues. The business firm size data were from U.S. Census Business Survey for 2018.⁴

Table 2.1 presents the estimated number of Virginia business establishments and employment. In 2019, there were an estimated 285,486 establishments in Virginia, with 13,522 being categorized as very high or high risk, 122,753 establishments classified as being medium risk, and the rest classified as being lower risk. The latest employment data show that there were 4.1 million workers in Virginia as of the second quarter of 2020, with 361,408 working in very-high- or high-risk businesses, 2.0 million in medium-risk business, and 1.8 million in lower-risk businesses. Almost all Virginia establishments (99.6%) have fewer than 500 employees, and 74.4% of jobs in Virginia are in small businesses.

Table 2.1: Estimated Virginia Business Establishments and Employment

Exposure Risk Level	All Businesses		Small Businesses		Percent of Small Business	
	Establishment (2019)	Employment (Q2-2020)	Establishment (2019)	Employment (Q2-2020)	Establishment (2019)	Employment (Q2-2020)
Very High or High	13,522	361,408	13,474	266,627	99.6%	73.8%
Medium	122,753	2,019,672	122,243	1,579,407	99.6%	78.2%
Lower	149,211	1,750,265	148,698	1,228,249	99.7%	70.2%
Total	285,486	4,131,345	284,415	3,074,283	99.6%	74.4%

Source: U.S. Census and JobsEQ by Chmura

In estimating the economic impact of 16VAC25-220, Chmura focuses on the incremental cost due to this standard. For example, if certain stipulations of this standard overlap with existing federal or state regulations or governor’s executive orders, this standard will not cause additional cost for affected businesses. With regard to the issue of face coverings, for instance, Governor Northam issued Executive Order 72 on December 10, 2020, which requires all employees of all businesses in certain industries—including retail and food services, and entertainment—to wear a face covering while working at their place of employment.⁵ While the above requirement is in place, there would be no incremental cost associated with wearing a face covering applicable to DOLI’s standard. Chmura worked with DOLI to identify the standards that exceed existing federal and state regulations, thus resulting in incremental costs for Virginia businesses.

The standard 16VAC25-220 has nine sections, numbered 16VAC25-220-10 to 16VAC25-220-90. The section of 16VAC25-220-10 outlines the purpose, scope, and applicability; 16VAC25-220-20 stipulates the effective date of the standard; and 16VAC25-220-30 defines terminologies used in the standard. Furthermore, 16VAC25-220-90 states that discrimination

³ The affected businesses presented in this report are measured by the number business establishments, not the number of firms. For example, a bank can have many branches in Virginia, and each branch is a separate establishment. The employment number will be simply referred as the second quarter of 2020.

⁴ In this analysis, Chmura only used the number of employees to classify establishments into small business, as revenue information is not available.

⁵ Source: [https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-72-and-Order-of-Public-Health-Emergency-Nine-Common-Sense-Surge-Restrictions-Certain-Temporary-Restrictions-Due-to-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-72-and-Order-of-Public-Health-Emergency-Nine-Common-Sense-Surge-Restrictions-Certain-Temporary-Restrictions-Due-to-Novel-Coronavirus-(COVID-19).pdf)

against an employee for exercising rights under this standard is prohibited. Those four sections do not result in incremental costs for businesses in Virginia and are excluded from this analysis. As a result, the rest of the report will evaluate the economic impact of the five sections, 16VAC25-220-40 to 16VAC25-220-80.

3. Impact of 16VAC25-220-40

3.1. Economic Impact

16VAC25-220-40 outlines the mandatory requirements for all employers in Virginia. There are 13 sections lettered A to M. Under each section, there are additional sub-sections. Some of these sections do not result in additional costs for businesses. For example, Section A states “employers shall ensure compliance with the requirements in this section to protect employees in all exposure risk levels from workplace exposure to the SARS-CoV-2 virus that causes the COVID-19 disease”. This requirement itself does not incur additional cost for businesses.⁶

Some requirements overlap with existing regulations and executive orders. Section B is related to exposure assessment, notification requirements, and employee access to exposure and medical records. The current regulations by the federal Occupation Safety and Health Administration (OSHA) have required employers in general industry (excluding construction, agriculture, and maritime industries) to assess workplace hazards.⁷ Thus, Section B will not incur additional costs for Virginia businesses except for businesses in construction, agriculture, and maritime industries. For businesses in those three industries, it is estimated that risk assessment, discussion with sub-contractors, notifying employees, and having a system to report positive COVID-19 cases may take approximately four to five hours of staff time to perform.

Section C is related to the return-to-work policies all businesses need to have regarding infected employees, or those suspected to be infected by the SARS-CoV-2 virus. The key component of Section C is that those infected or suspected to be infected are not allowed to return to work. While those stipulations may cause businesses to lose potential revenues, those requirements are already in effect under Virginia Department of Health requirements for isolation of infected employees and quarantine of people who were in close contact with an infected person.⁸ The only cost for a business is to develop policies and procedures related to employees. It is estimated that approximately seven to ten hours may be needed to develop such policies. The Virginia Department of Health provides guidelines for this, which could reduce the time needed to develop this plan.⁹

Section D concerns the establishment and implementation of policies and procedures that “ensure employees observe physical distancing while on the job and during paid breaks on the employer’s property”. There is no incremental cost for Virginia businesses, as similar stipulations have been in effect since the Executive Order 72 was issued by Virginia Governor Northam on December 10, 2020;¹⁰ while some restrictions were also in place under previous executive orders, including Amended Executive Order 63 issued on November 13, 2020.¹¹

Section E is related to the access to common areas and breakrooms in the workplace, requiring businesses to limit occupancy of such areas, provide hand-washing facilities or supplies, post signage, and to clean and sanitize such areas. There is no incremental cost for businesses from this requirement, as stipulations related to signage, cleaning, and

⁶ All direct quotes in this document are from: 16VAC25-220, Revised Proposed Permanent Standard for Infectious Disease Prevention of the SARS-Cov-2 Virus that Causes COVID-19, DOLI, December 10, 2020, unless noted otherwise. The Appendix includes the itemized list of cost estimates.

⁷ Source: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.132>

⁸ Source: https://www.vdh.virginia.gov/coronavirus/frequently-asked-questions/virginia-questions/#_heading=h.3rdcrjn

⁹ Source: <https://www.vdh.virginia.gov/coronavirus/vdh-interim-guidance-for-implementing-safety-practices-for-critical-infrastructure-workers-non-healthcare-during-widespread-community-transmission-in-virginia/>

¹⁰ Source: <https://www.governor.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/Forward-Virginia-Phase-Three-Guidelines-December-2020.pdf>

¹¹ Source: <https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-63-AMENDED-and-Order-Of-Public-Health-Emergency-Five---Requirement-To-Wear-Face-Covering-While-Inside-Buildings.pdf>

disinfecting common areas have been in effect due to the Executive Order 72 issued by Virginia Governor Northam. The requirement of a hand-washing facilities is covered in existing OSHA and DOLI standards and regulations.

Section F is associated with multiple employees occupying a vehicle for work purposes. Businesses are required to develop a procedure when maintaining social distance is not feasible while traveling for work, and need to provide face coverings for employees. It is estimated that approximately one to two staff hours may be needed to develop such policies. The face-covering requirement results in no incremental cost for businesses, as similar stipulations have been in effect due to Executive Order 72; while some restrictions were also in place under previous executive orders, including Amended Executive Order 63.

Section G, H, and I are regulations related to wearing face covering in workplaces when social distancing is not feasible. Those requirements generate no incremental cost for businesses, as similar stipulations have been in effect due to the Executive Order 72, and the previous Executive Order 63.

Section J is related to the use of face shields when the use of face coverings would be “contrary to the employee's health or safety because of a medical condition.” The current OSHA regulation 1910.132 has required employers in general industry (excluding construction, agriculture, and maritime industries) to provide personal protective equipment (PPE) for their employees.¹² Thus, Section J stipulations will not incur additional costs for businesses except for businesses in construction, agriculture, and maritime industries. For businesses in those three industries, face shields can be acquired for a price ranging from \$1.00 to \$7.00 per piece.¹³ The cost of face shields is lower if purchased directly from overseas producers, but additional shipping costs will apply, which could be approximately half of the unit price.¹⁴

Section K concerns the process to apply for a waiver related to face coverings, and does not generate incremental cost for Virginia businesses.

Section L involves sanitation and disinfection standards at the workplace. Section M requires employers to provide PPE for employees in situations when “engineering, work practice, and administrative controls are not feasible or do not provide sufficient protection.” These requirements generate no incremental cost for businesses, as similar stipulations have been in effect due to the Executive Order 72; while some restrictions were also in place under previous executive orders, including Amended Executive Order 61 issued on May 8, 2020.¹⁵

In summary, 16VAC25-220-40 generates limited incremental costs for businesses in Virginia, as most of the regulations specific to SARS-CoV-2 virus overlap with existing regulations businesses are required to follow. The only additional costs are staff hours to develop policies and procedures related to return-to-work and travel policies. For businesses in construction, agriculture, and maritime industries not covered by existing rules, there are additional costs to conduct a risk assessment and provide face shields.

¹² Source: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.132>

¹³ Source: <https://www.qualitylogoproducts.com/bulk-face-shields.htm>

¹⁴ Source: https://www.made-in-china.com/products-search/hot-china-products/Wholesale_Face_Shield.html

¹⁵ Source: [https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-(COVID-19).pdf)

3.2. Businesses and Entities Affected

16VAC25-220-40 will affect all businesses in Virginia, estimated at 285,456 establishments in 2019, with employment of 4.1 million as of the second quarter of 2020. For establishments in construction, agriculture, and maritime industries, it is estimated that there were 23,654 Virginia businesses in these industries in 2019, with total employment being 279,636 as of the second quarter of 2020.

3.3. Localities Particularly Affected

Since 16VAC25-220-40 applies to all businesses, no locality will be particularly affected by this proposed regulatory action.

For some stipulations that will incur additional costs for construction, agriculture, and maritime industries, some localities in Virginia will be disproportionately affected. As

Table 3.1 shows, many of those are rural counties with a large number of workers in the agriculture industry.

Table 3.1 Top Ten Localities with Highest Percentage of Employment in Construction, Agriculture and Maritime Industries

Locality	Percent of Employment
Manassas Park City, Virginia	36.9%
Highland County, Virginia	30.8%
Charles City County, Virginia	30.1%
Amelia County, Virginia	26.9%
Cumberland County, Virginia	26.4%
Northampton County, Virginia	23.3%
Powhatan County, Virginia	22.3%
King and Queen County, Virginia	22.1%
Floyd County, Virginia	21.8%
Rappahannock County, Virginia	21.5%
Virginia State Average	6.8%

Source: JobsEQ by Chmura

3.4. Projected Impact on Employment

The proposed regulations will have minimal impact on the overall employment of the state, since the estimated incremental monetary costs are limited and only apply to businesses in construction, agriculture, and maritime industries. Other costs are staff hours, and can be accommodated by existing staff without the need to hire additional workers.

3.5. Small Businesses Impact

It is estimated that the number of small businesses impacted was 284,415, based on 2019 figures, with an associated employment of 3.1 million as of the second quarter of 2020. For businesses in construction, agriculture, and maritime industries, it is estimated that 23,632 small businesses were impacted based on 2019 figures, with a total employment of 259,719 as of the second quarter of 2020.

4. Impact of 16VAC25-220-50

4.1. Economic Impact

16VAC25-220-50 outlines the mandatory requirements for employers in Virginia categorized as having very high or high exposure risks. There are four sections lettered A to D under this standard, with additional subsections under each section. Some of those sections or subsections do not result in additional costs for businesses. For example, Section A defines the businesses this standard should apply to and does not incur additional cost for businesses.

As the standard notes, “It is recognized that various hazards or job tasks at the same place of employment can be designated as very high, high, medium, or lower exposure risk for purposes of application of the requirements of this standard. It is further recognized that various required job tasks prohibit an employee from being able to observe physical distancing from other persons.”

4.1.1. Section B

Section B is related to the engineering controls for very-high-risk or high-risk businesses. Specifically, subsection B.1 and B.2 state that air-handling systems under the control of these businesses need to meet manufacturing instructions and additional operating instructions specific for SARS-CoV-2 virus. Pre-existing Virginia Occupational Safety and Health Administration (VOSH) regulations already require that employers to comply with “the manufacturer’s specifications and limitations applicable to the operation, training, use, installation, inspection, testing, repair and maintenance of all machinery, vehicles, tools, materials and equipment”.¹⁶ It is estimated that the subsections B1 and B2 will not generate incremental costs for Virginia businesses with very high or high exposure risks.

Subsection B.3 states that “hospitalized patients known or suspected to be infected with the SARS-CoV-2 virus, where feasible and available, shall be placed in airborne infection isolation room (AIIRs)”. Subsection B.4 states that employers “shall use AIIRs when available for performing aerosol-generating procedures on patients with known or suspected to be infected with the SARS-CoV-2 virus”. The Virginia Department of Health has existing regulations regarding hospitals and AIIRs, and the utilization of AIIRs is dependent on the availability. It is thus estimated that subsections B3 and B4 will not generate incremental costs for Virginia businesses with very high or high exposure risks.

Subsection B.5 regulates postmortem activities, “employers shall use autopsy suites or other similar isolation facilities when performing aerosol-generating procedures on the bodies of persons known or suspected to be infected with the SARS-CoV-2 virus at the time of their death.” For businesses involved in postmortem activities without such a facility, the cost of construction for a new unit can be substantial in the range of tens of thousand dollars.¹⁷ Rental is an option during the pandemic. It is estimated that rental rate of a cold storage facility with fan-filter unit, based on CDC recommendations, may range from \$2,000 to \$3,000 a month.¹⁸

Subsection B.6 is related to the handling of specimens from patients or persons known or suspected to be infected with the SARS-CoV-2 virus, and it needs to follow precautions associated with Biosafety Level 3 (BSL-3). All laboratories licensed

¹⁶ Source: 16VAC25-60-120 [General Industry], <https://law.lis.virginia.gov/admincode/title16/agency25/chapter60/section120/>

¹⁷ Source: <https://massfatalityresponse.com/decedent-refrigeration/morgue-trailer-systems/>

¹⁸ Source: <https://www.kwipped.com/rentals/restaurant/walkin-cold-storage-trailers-and-containers/1022>

by Virginia Department of Health are required to meet BSL-2 or BSL-3 standards. It is estimated that Subsection B6 will not generate incremental costs for businesses.

Subsection B.7 states that “to the extent feasible, employers shall install physical barriers, (e.g., clear plastic sneeze guards, etc.), where such barriers will aid in mitigating the spread of SARS-CoV-2 and COVID-19 virus transmission.” The cost of a physical barrier ranges from \$50 to \$300, depending on the size of such barriers.¹⁹ The cost of physical barriers is lower if purchased directly from overseas producers, but substantial additional shipping costs will apply.²⁰ In addition, this requirement is optional for businesses and may not result in incremental costs if other mitigation strategies are implemented.

4.1.2. Section C

Section C is related to administrative and work practice control of employers categorized as having very high and high risk exposures.

Subsection C.1 requires pre-screening or surveying of employees before the commencement of each work shift. Affected businesses will develop a certain screening method and devote staff hours to perform the screening. Guidelines from the Virginia Department of Health for screening include temperature checks and asking several screening questions.²¹ It is estimated that the cost of a digital non-contact thermometer ranges from \$20 to \$80.²² The cost is lower if purchased directly from overseas producers, but additional shipping costs will apply.²³ However, please note that although it is a generally accepted practice, the standard does not specifically require that employers check the temperatures of employees. Businesses need to have dedicated staff to perform screening. It is estimated that screening of each employee may take a two to five minutes.

Subsections C.2 and C.3 require employers to follow existing guidelines and limit or restrict access to work areas, and they do not result in incremental costs for businesses.

Subsection C.4 requires employers to post signs “requesting patients and family members to immediately report signs and/or symptoms of respiratory illness on arrival at the healthcare facility and use disposable face coverings.” The cost of plastic signs ranges from \$6.10 to \$9.40, for workplace uses, depending on the size of signs.²⁴

Subsection C.5 requires employers to “offer enhanced medical monitoring of employees during COVID-19 outbreaks.” This section does not provide details regarding what constitutes the enhanced medical monitoring. It is assumed that the enhanced medical monitoring may involve checking temperatures and other vital signs of employees such as blood oxygen levels and asking various screening questions. The overall costs involve the purchasing of medical devices as well as assigning employees to perform monitoring. It is estimated that the cost of a digital non-contact thermometers ranges from \$20 to \$80, while cost of blood oxygen monitors range from \$20 to \$50 per unit.²⁵ It is assumed that since monitoring is an

¹⁹ Source: <https://www.zumaooffice.com/search.aspx?keyword=physical+barriers>; <https://www.dgsretail.com/P1711/Portable-Freestanding-Sneeze-Guard-Desk-Countertops-Acrylic-W/Base-24x24H>

²⁰ Source:

https://www.alibaba.com/showroom/plastic+shield+for+countertop.html?fsb=y&IndexArea=product_en&CatId=&SearchText=plastic+shield+for+countertop&isGalleryList=G

²¹ Source: <https://www.vdh.virginia.gov/coronavirus/vdh-interim-guidance-for-implementing-safety-practices-for-critical-infrastructure-workers-non-healthcare-during-widespread-community-transmission-in-virginia/>

²² <https://www.zumaooffice.com/search.aspx?keyword=thermometer>

²³ https://www.alibaba.com/showroom/thermometer.html?fsb=y&IndexArea=product_en&CatId=100009295&SearchText=thermometer&isGalleryList=G

²⁴ Source: <https://www.zumaooffice.com/search.aspx?keyword=social+distancing+sign>

²⁵ <https://www.4mdmedical.com/ssearch?q=pulse+oximeter>

ongoing process, dedicated employees are needed for businesses with a larger number of workers, such as hospitals. A study done by Vanderbilt University Medical Center shows that one full-time monitoring worker is needed for 800 employees.²⁶

Subsection C.6 states that business shall offer psychological and behavioral support when feasible. Since this is not a required mandate, it is estimated that it does not generate incremental costs for businesses.

Subsection C.7 requires that in healthcare settings, employers shall provide alcohol-based hand sanitizers containing at least 60% ethanol or 70% isopropanol to employees, emergency responders, and other personnel. The cost of hand sanitizer is estimated to be around \$5.00 for bottles around 12 to 17 ounces, or \$35 per gallon.²⁷

Subsection C.8 requires that “employers shall provide face coverings to non-employees suspected to be infected with SARS-CoV-2 virus to contain respiratory secretions until the non-employees are able to leave the site.” The cost of face coverings, such as a standard disposable face covering, is about \$0.10 per piece, when purchased in bulk.²⁸

While some Subsections from C.1 to C.8 necessitate that businesses with very high or high risk exposure incur incremental costs to meet those requirements, Subsection C.9 states that employers shall implement flexible worksites, flexible work hours, and flexible meeting and travel options, when feasible. Those options can provide significant cost savings for businesses. For employers that can work from home or conduct meetings remotely, businesses do not need to comply with the regulations related to the workplace. Other provisions under Subsection C.9, including increasing social distances and delivering services remotely, do not generate additional costs for businesses as they are optional mitigation strategies.

4.1.3. Section D

Section D is related to the personal protection equipment (PPE) in the workplace. It requires employers to assess hazardous risks, complete a written certification, and implement respiratory protection programs. Those requirements are similar to those in 16VAC25-220-40, Section B. The current regulations by Occupational Safety and Health Administration (OSHA) have required employers in general industry (excluding construction, agriculture, and maritime industries) to assess workplace hazards.²⁹ Since none of the businesses with very high or high risk exposure are in the above three industries, Section D will not incur additional costs for all businesses.

In summary, 16VAC25-220-50 will incur additional costs for employers with very high or high exposure risk. Most of those costs are related to administrative control, such as conducting screening, installing physical barriers, posting signs, having hand sanitizers, and providing face coverings for non-employees. Only businesses with postmortem activities may need to invest in special facilities if they do not currently have one, which can have a substantial price tag. Large employers may need to have dedicated staff to perform enhanced medical screening. However, those employers can mitigate those costs by adopting more flexible work-site and work-hours arrangements.³⁰

²⁶ Source: <https://www.vumc.org/coronavirus/latest-news/medical-surveillance-key-covid-19-response-vumc>

²⁷ Source:

https://www.bulkofficesupply.com/search.aspx?keyword=hand+sanitizer&onatalp=4024471056375168968&fph=0_41bfd98c84e3ed86d3746ed1a8c10870

²⁸ Source: <https://www.turmerry.com/pages/wholesale-face-mask-usa-suppliers>

²⁹ Source: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.132>

³⁰ The Appendix has an itemized list of the estimated economic impact.

4.2. Businesses and Entities Affected

16VAC25-220-50 will affect very high and high-risk businesses in Virginia, estimated at 13,522 establishments in 2019, with employment of 361,408 as of the second quarter of 2020.

4.3. Localities Particularly Affected

In Virginia, an estimated 8.7% of all jobs are in very high or high-risk businesses. However, in some localities, those percentages are significantly higher. Many of them are locations with a high concentration of healthcare or nursing home facilities, such as Northern City, Emporia City, and Charlottesville City.

Table 4.1 Localities with High Percentage of Very-High and High Risk Employment

Locality	Percent of Total Employment
Norton City, Virginia	26.2%
Emporia City, Virginia	24.6%
Charlottesville City, Virginia	24.5%
Petersburg City, Virginia	23.4%
Winchester City, Virginia	22.5%
Franklin City, Virginia	21.0%
Lancaster County, Virginia	20.6%
Salem City, Virginia	18.9%
Alleghany County, Virginia	17.6%
Fredericksburg City, Virginia	17.6%
Virginia State Average	8.7%

Source: JobsEQ by Chmura

4.4. Projected Impact on Employment

The proposed regulations will have a limited impact on the overall employment of the state. Since the estimated incremental costs are not substantial, it is unlikely that any of the affected businesses will need to reduce costs elsewhere or even employment payroll to meet those requirements. Some large employers may need to hire additional workers to perform enhanced medical monitoring for their employees, which may increase costs to businesses, but will create jobs for the state. In addition, 16VAC25-220-50 will have some positive effects on state businesses engaging in supplying products such as face masks, sanitizers, and other PPE. It will increase opportunities for businesses supplying or installing physical barriers as well.

4.5. Small Businesses Impact

It is estimated that the number of small businesses impacted is 13,474, based on 2019 data. with associated employment of 266,627 as of the second quarter of 2020.

5. Impact of 16VAC25-220-60

5.1. Economic Impact

16VAC25-220-60 outlines the mandatory requirements for employers in Virginia with medium exposure risks. There are four sections lettered A to D. Some of those requirements are similar to those applicable to very high or high-risk businesses. Section A defines the businesses 16VAC25-220-60 should apply to and does not incur additional costs for businesses.

As the standard notes, “It is recognized that various hazards or job tasks at the same place of employment can be designated as very high, high, medium, or lower exposure risk for purposes of application of the requirements of this standard. It is further recognized that various required job tasks prohibit an employee from being able to observe physical distancing from other persons.”

5.1.1. Section B

Section B.1 is related to the engineering controls for businesses with medium risks. Specifically, subsection B.1 states that air-handling systems under the control of those businesses need to meet manufacturing instructions and additional operating instructions specific to the SARS-CoV-2 virus. Preexisting Virginia Occupational Safety and Health Administration (VOSH) regulations already require that employers comply with “the manufacturer’s specifications and limitations applicable to the operation, training, use, installation, inspection, testing, repair and maintenance of all machinery, vehicles, tools, materials and equipment.”³¹ It is estimated the subsection B1 will not generate incremental costs for businesses.

Subsection B.2 states that where feasible, “employers shall install physical barriers, (e.g., clear plastic sneeze guards, etc.), where such barriers will aid in mitigating the spread of SARS-CoV-2 and COVID-19 virus transmission.” The cost of a physical barrier ranges from \$50 to \$300, depending on the size of such barriers.³² The cost of physical barriers is lower if purchased directly from overseas producers, but additional shipping costs will apply.³³ In addition, this requirement is optional for businesses and may not result in incremental costs if other mitigation strategies are implemented.

5.1.2. Section C

Section C concerns administrative and work practice control of employers with medium exposure risk. Subsection C.1.a requires pre-screening or surveying of employees before the commencement of each work shift. Affected businesses will develop certain screening methods and devote staff hours to perform the screening. Guidelines from Virginia Department of Health for screening includes temperature checks and asking several screening questions.³⁴ It is estimated that the cost of digital non-contact thermometer ranges from \$20 to \$80.³⁵ The cost is lower if purchased directly from overseas producers, but additional shipping costs will apply.³⁶ However, please note that although it is a generally accepted practice,

³¹ Source: 16VAC25-60-120 [General Industry], <https://law.lis.virginia.gov/admincode/title16/agency25/chapter60/section120/>

³² Source: <https://www.zumaooffice.com/search.aspx?keyword=physical+barriers>; <https://www.dgsretail.com/P1711/Portable-Freestanding-Sneeze-Guard-Desk-Countertops-Acrylic-W/Base-24x24H>

³³ Source: https://www.alibaba.com/showroom/plastic+shield+for+countertop.html?fsb=y&IndexArea=product_en&CatId=&SearchText=plastic+shield+for+countertop&isGalleryList=G

³⁴ Source: <https://www.vdh.virginia.gov/coronavirus/vdh-interim-guidance-for-implementing-safety-practices-for-critical-infrastructure-workers-non-healthcare-during-widespread-community-transmission-in-virginia/>

³⁵ <https://www.zumaooffice.com/search.aspx?keyword=thermometer>

³⁶ https://www.alibaba.com/showroom/thermometer.html?fsb=y&IndexArea=product_en&CatId=100009295&SearchText=thermometer&isGalleryList=G

the standard does not specifically require that employers check the temperatures of employees. Business needs to have dedicated staff to perform screenings. It is estimated that screening of each employee may take a two to five minutes.

Subsection C.1.b requires that “employers shall provide face coverings to non-employees suspected to be infected with SARS-CoV-2 virus to contain respiratory secretions until the non-employees are able to leave the site.” The cost of face coverings, such as standard disposable face coverings, is about \$0.10 piece, when purchased in bulk.³⁷

Subsection C.2.a to C.2.i states that employers shall implement flexible worksites, flexible work hours, and flexible meeting and travel options, when feasible. Those options can provide significant cost savings for businesses. For employers that can work from home, or conduct meetings remotely, businesses do not need to comply with workplace regulations. In addition, some provisions, including increasing social distances and delivering services remotely, do not generate additional costs for businesses as they are optional mitigation strategies.

Subsection C.2.j and C.2.k require that employers provide face coverings for employees who cannot maintain social distance, or in customer-facing or other personal-facing roles. There is no additional cost to businesses as similar stipulations have been in effect due to Executive Order 72 issued by Virginia Governor Northam; while some restrictions were also in place under previous executive orders, including Amended Executive Order 63.

5.1.3. Section D

Section D is related to the personal protection equipment (PPE) in the workplace. It requires employers to assess hazardous risks, complete a written certification, and implement respiratory protection programs. Those requirements are similar to those in 16VAC25-220-40, Section B. The current regulations by Occupational Safety and Health Administration (OSHA) have required employers in general industry (excluding construction, agriculture, and maritime industries) to assess workplace hazards.³⁸ For businesses in those three industries, it is estimated that risk assessment, discussion with sub-contractors, notifying employees, and having a system to report positive COVID-19 cases may take approximately four to five staff hours.

In summary, 16VAC25-220-60 will incur limited additional costs for employers with medium exposure risk. Most of those costs are related to administrative controls, such as conducting screenings, installing physical barriers, and supplying face coverings for non-employees. However, businesses can mitigate these costs by adopting more flexible work-site and work-hours arrangements.³⁹

5.2. Businesses and Entities Affected

These proposed regulations will affect medium-risk businesses in Virginia, estimated at 122,753 establishments in 2019, with an employment of 2.0 million as of the second quarter of 2020.

³⁷ Source: <https://www.turmerry.com/pages/wholesale-face-mask-usa-suppliers>

³⁸ Source: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.132>

³⁹ The Appendix has an itemized list of the estimated economic impact.

5.3. Localities Particularly Affected

In Virginia, an estimated 48.9% of all jobs are in medium-risk businesses. But in some localities, higher percentages of employees work for medium risk businesses. As Table 5.1 shows, examples of those localities are Covington City, Greensville County, and Madison County.

5.4. Projected Impact on Employment

The proposed standard will have limited impact on the overall employment of the state. Since the estimated incremental costs are not substantial, it is unlikely that any of affected businesses will need to reduce staff size to meet those requirements. However, it will have some positive effect on state businesses engaging in supplying products such as face masks and physical barriers.

5.5. Small Businesses Impact

It is estimated that number of small businesses impacted was 122,243, based on 2019 establishment estimate, with associated employment of 1.6 million, as of the second quarter of 2020.

Table 5.1: Top Ten Localities with Highest Percentage of Medium Risk Employment

Locality	Percent in Total Employment
Covington City, Virginia	73.0%
Greensville County, Virginia	72.8%
Madison County, Virginia	72.8%
Pulaski County, Virginia	72.0%
New Kent County, Virginia	71.8%
Dinwiddie County, Virginia	71.1%
Montgomery County, Virginia	71.0%
Henry County, Virginia	70.8%
Campbell County, Virginia	70.3%
Northampton County, Virginia	70.3%
Virginia State Average	48.9%

Source: JobsEQ by Chmura

6. Impacts of 16VAC25-220-70

6.1. Economic Impact

16VAC25-220-70 is related to the development of a written Infectious Disease Preparedness and Response Plan. It only applies to very high and high-risk employers, as well as medium-risk employers with 11 or more employees. It is estimated that risk assessment and implementation of respiratory protection programs may take approximately 10 to 20 hours of staff time to develop. To mitigate such costs to businesses, Virginia Occupational Safety and Health Administration has provided a free online, editable WORD version of an infectious disease preparedness and response plan that can be used by employers to satisfy the requirements of 16VAC25-220-70. This template can reduce the costs for businesses significantly.⁴⁰

6.2. Businesses and Entities Affected

The proposed regulation will affect very high and high-risk businesses, and medium-risk businesses with 11 or more employees. It is estimated that the number of establishments in those categories was 54,960 in 2019, with an employment of 2.2 million as of the second quarter of 2020.

6.3. Localities Particularly Affected

In Virginia, an estimated 52.3% of all employees are in the affected business categories. Some localities have higher percentages of employees in affected businesses. As Table 6.1 shows, examples of those localities are Galax City, Emporia City, and Williamsburg City.

Table 6.1: Top Ten Localities with Highest Percentage of Employment in Affected Businesses

Locality	Percent in Total Employment
Galax City, Virginia	74.8%
Emporia City, Virginia	74.6%
Williamsburg City, Virginia	73.2%
Colonial Heights City, Virginia	72.4%
Pulaski County, Virginia	71.4%
Montgomery County, Virginia	71.2%
Floyd County, Virginia	70.9%
Hopewell City, Virginia	70.6%
Amherst County, Virginia	70.4%
Greensville County, Virginia	70.3%
Virginia State Average	52.3%

Source: JobsEQ by Chmura

6.4. Projected Impact on Employment

The proposed regulations will have no impact on the overall employment of the state. The estimated incremental costs are only staff hours, and can be accommodated by existing staff of the businesses without the need to hire additional workers.

6.5. Small Businesses Impacts

It is estimated that number of small businesses impacted was 54,402, based on 2019 establishment estimate, with associated employment of 1.6 million as of the second quarter of 2020.

⁴⁰ Source: <https://www.doli.virginia.gov/covid-19-outreach-education-and-training/>

7. Impact of 16VAC25-220-80

7.1. Economic Impact

16VAC25-220-80 is related to providing employees with training on the hazards and characteristics of the SARS-CoV-2 and COVID-19 disease. The training requirement only applies to employers with employees exposed to very high, high, and medium exposure risk. For employers with lower exposure risk, they need to provide information sheets to employees exposed to such hazards.

Typically, developing a training material may take about 40 hours of staff time for training lasting one hour.⁴¹ Delivering the training and maintaining training certifications will also take some staff hours in human resources or management. To mitigate such costs to businesses, VOSH has provided the free online training materials that satisfy training materials requirements of 16VAC25-220-80. In addition, VOSH has provided a free online training certification form for employers to use.⁴² As a result, employers may not need to develop new training materials, and all the business costs are related to training delivery to each employee (about an hour) and staff time to maintain the certifications.

For businesses categorized as having lower exposure risk, preparing information sheets for employees may take a few hours. VOSH has provided a free online two-page document that satisfies the requirements.⁴³ As a result, the cost for lower-risk businesses is minimal.

7.2. Businesses and Entities Affected

Overall, 16VAC25-220-80 will affect all businesses in Virginia, estimated at 285,456 establishments in 2019, with an employment of 4.1 million as of the second quarter of 2020. The training requirements only apply to businesses with very high, high and medium risks. The total number of businesses establishments is estimated to be 136,275 in 2019, with 2.4 million employees as of the second quarter of 2020. The total number of businesses establishments with lower risk is estimated to be 149,211 in 2019, with 1.8 million employees as of the second quarter of 2020.

7.3. Localities Particularly Affected

Since 16VAC25-220-80 applies to all businesses, no locality will be particularly affected by this proposed regulatory action. However, for training requirements, some localities affected the most include Galax City, Williamsburg City, and Emporia City. For lower-risk businesses, localities with high percentages of employment are King George County, Goochland County, and Arlington County. Those are localities with a large number of jobs in financial services, professional services, or government.

⁴¹ Source: <https://trainlikeachampion.blog/why-does-it-matter-how-long-it-takes-to-design-a-presentation/>

⁴² Source: <https://www.doli.virginia.gov/wp-content/uploads/2020/08/ETS-Full-Training-Presentation.pdf> <https://www.doli.virginia.gov/wp-content/uploads/2020/07/Infographic.pdf> and <http://www.doli.virginia.gov/wp-content/uploads/2020/07/Training-Certification.xlsx>

⁴³ Source: <https://www.doli.virginia.gov/wp-content/uploads/2020/07/Lower-Risk-Training-1.pdf>

Table 7.1 Top Ten Localities with Highest Percentage of Affected Businesses

Locality	Percent of Employment in Very High, High, and Medium-Risk Businesses	Locality	Percent of Employment in Lower-Risk Businesses
Galax City	82.0%	King George County	72.6%
Williamsburg City	80.9%	Goochland County	70.2%
Emporia City	80.7%	Arlington County	64.9%
Colonial Heights City	79.6%	Surry County	62.1%
Pulaski County	79.3%	Alexandria City	59.9%
Montgomery County	79.0%	Fairfax County	58.1%
Floyd County	78.6%	Dickenson County	51.3%
Greensville County	78.3%	Stafford County	48.6%
Amherst County	77.9%	Buchanan County	48.2%
Madison County	77.8%	Henrico County	46.9%
Virginia State Average	57.6%	Virginia State Average	42.4%

Source: JobsEQ by Chmura

7.4. Projected Impact on Employment

The proposed regulations will have no impact on the overall employment of the state. Since the estimated incremental costs are minimal, those efforts can be accommodated by existing staff of the businesses without the need to hire additional workers.

7.5. Small Businesses Impacts

It is estimated that number of small businesses impacted was 284,415, based on 2019 establishment estimate, with associated employment of 3.1 million as of the second quarter of 2020. Training requirements apply to businesses with very high, high, and medium risks. The total number of small businesses establishments in those categories is estimated to be 137,717, based on 2019 establishment estimate, with 1.8 million employees as of the second quarter of 2020. The total number of small business establishments with lower risk is estimated to be 148,498 in 2019, with 1.2 million employees as of the second quarter of 2020.

Appendix: Summary Table of Impact

Table A1: Economic Impact Summary

Standard	Description	Include in the Study	Estimated Cost
16VAC2 5-220-40	All Businesses		
A	Ensure Compliance	N/A	
B	Exposure assessment (9 items)	Overlap with current regulations, with exception of construction, agriculture and maritime industries	4-5 hours for construction, agriculture and maritime businesses
C	Develop return to work policy	Staff Hours	7-10 hours
	Not allow infected individuals to work (10-20 days)	Overlap with current regulations	
	Medical examination	Overlap with current regulations	
D	Develop social distance policies	Overlap with current regulations	
E	Common space	Overlap with current regulations	
	Clean and disinfect	Overlap with current regulations	
	Handwashing facilities and suppliers	Overlap with current regulations	
F	Wear face covering	Overlap with current regulations	
	Develop procedure during travel	Staff Hours	1-2 hours
G	Provide face covering	Overlap with current regulations	
H	Provide face covering	Overlap with current regulations	
I	Provide face covering	Overlap with current regulations	
J	Provide face shields	Overlap with current regulations, with exception of construction, agriculture and maritime industries	\$1.0-\$8.0 per unit for construction, agriculture, and maritime businesses
K	Waiver to face covering requirement	N/A	
L	Clean and disinfection	Overlap with current regulations	
M	Provide PPE	Overlap with current regulations	
16VAC2 5-220-50	Very high and high-risk businesses		
A	Definition	N/A	
B	Air handling system (B.1 and B.2)	Overlap with current regulations	
	Hospitalized patients & AIIR (B.3 and B.4)	Overlap with current regulations	
	Postmortem activities (B.5)	isolation facilities similar to AIIR	\$2,000-\$3,000 rental per month
	Install physical barriers (B.7)	Cost of physical barriers	\$50-\$300 per unit, optional
C	Screening employees for symptoms before work shift (C.1)	Cost of screening methods	\$20-80 for thermometer, plus staff hours of 2-5 minutes per employee
	Post signs (C.4)	Cost of signs	\$6.1-\$9.4 per sign
	Enhanced medical monitoring (C.5)	Cost of monitoring	\$20-80 for thermometer, \$20-\$50 for blood oximeter, one full-time staff for 800 employees
	Psychological and behavior support (C.6)	Optional requirement	
	Alcohol-based hand sanitizer (C.7)	Cost of hand sanitizer	\$5 per bottle (12-17 ounce), \$35 per gallon
	Face cover (C.8)	Cost of face covering	\$0.8-\$0.9 per unit of disposable mask
	Flexible worksite, work hours (C.9)	Provide cost savings for business	Benefit can offset costs
D	PPE	Overlap with current regulations	

Table A1: Economic Impact Summary

Standard	Description	Include in the Study	Estimated Cost
16VAC2 5-220-60	Medium-risk businesses		
A	Definition	N/A	
B	Air handling system (B.1)	Overlap with current regulations	
	Install physical barriers (B.2)	Cost of physical barriers	\$50-\$300 per unit, optional
C	Screening employees for symptoms (C.1)	Cost of screening methods	
	Face cover to non-employees (C.1)	Cost of face covering	\$0.8-\$0.9 per unit of disposable mask
	Flexible worksite, work hours (C.2)	Provide cost savings for business	Benefits can offset costs
	Face cover to employees when social distance is not feasible	Overlap with current regulations	
D	Respiratory protection program	Overlap with current regulations	
	written certification	Staff Hours	
	implement respiratory protection program	Staff Hours	
	PPE	Overlap with current regulations, with exception of construction, agriculture and maritime industries	4-5 hours for construction, agriculture and maritime businesses
16VAC2 5-220-70	Develop Preparedness and response plan	Staff Hours	10-20 hours
16VAC2 5-220-80	Training	Staff Hours	About one hour to each employee,
	Information sheet	Staff Hours	Minimal

Source: Chmura