



The Price of Inaction

A Comprehensive Look at the Costs of Injuries and Fatalities in Washington's Construction Industry

Part of a Series of State Reports

Acknowledgments

This report was written by Keith Wrightson, Worker Safety and Health Advocate for Public Citizen's Congress Watch division, and edited by Congress Watch Research Director Taylor Lincoln.

About Public Citizen

Public Citizen is a national non-profit organization with more than 300,000 members and supporters. We represent consumer interests through lobbying, litigation, administrative advocacy, research, and public education on a broad range of issues including consumer rights in the marketplace, product safety, financial regulation, worker safety, safe and affordable health care, campaign finance reform and government ethics, fair trade, climate change, and corporate and government accountability.



Public Citizen's Congress Watch
215 Pennsylvania Ave. S.E.
Washington, D.C. 20003
P: 202-454-5139
F: 202-547-7392
<http://www.citizen.org>

Contents

I. INTRODUCTION	4
II. DATA AND METHODS	6
III. CONSTRUCTION: ONE OF WASHINGTON’S MOST DANGEROUS OCCUPATION	6
A. DATA ABOUT CONSTRUCTION FATALITIES IN WASHINGTON RECENT YEARS	7
B. DATA ABOUT CONSTRUCTION-RELATED INJURIES IN WASHINGTON IN RECENT YEARS.....	7
C. SUMMARY	8
IV. THE COSTS OF INJURIES AND FATALITIES IN WASHINGTON	8
V. WASHINGTON OCCUPATIONAL SAFETY AND HEALTH INACTION	9
VI. WAYS TO ADDRESS THE PROBLEM	10
VII. CONCLUSION	11
APPENDIX A CALCULATIONS OF OCCUPATIONAL FATAL AND NONFATAL INJURIES	12
APPENDIX B MODEL BILL FOR WORKER HEALTH AND SAFETY ON PUBLIC CONSTRUCTION PROJECTS	14
SECTION 1. TITLE	14
SECTION 2. DEFINITIONS.....	14
SECTION 3. BIDDER HEALTH AND SAFETY PREQUALIFICATION	15
SECTION 4. DEBARMENT FROM BIDDING ON CONSTRUCTION CONTRACTS.....	17

I. Introduction

Historically, the Occupational Safety and Health Administration (OSHA) has reported that construction is one of the most dangerous occupations in the United States. In 2010, fatalities due to workplace accidents claimed the lives of 774 U.S. construction workers, representing 16 percent of total workplace fatalities.¹ Washington has not avoided these types of tragedies. From 2008 to 2010, 39 construction workers in Washington lost their lives on the job. And though construction industry fatalities have generally been on the decline both in Washington and in the United States, Washington reported 21 construction industry deaths in 2010 alone.²

Compared with national trends, Washington's safety record is average. According to the AFL-CIO, Washington's worker fatality rate in 2010 was the 20th lowest in the country, meaning that 30 states had a higher incidence of worker fatalities. However, Washington exceeded the national rate for workplace injuries and illnesses (as opposed to fatalities) in 2010.³ (Both of these comparisons are for all occupations, not just construction.)

Many different issues lead to injuries in the construction industry. Accidental falls and contact with objects and equipment are two of the leading causes of fatal and nonfatal injuries, and oversight agencies have failed to do their part to reduce the frequency of such tragedies. "Despite efforts to reduce the risk of occupational injuries and illness in construction, the [construction] industry continues to account for a disproportionate share of work-related injuries and illnesses in the United States,"⁴ authors Geetha Waehrer *et al.* wrote in a 2007 paper that assessed the costs of construction-related injuries and fatalities.

Also worthy of discussion are the associated costs of construction injuries to the economy. Fatal and nonfatal injuries in the construction industry impose a significant economic burden. This paper highlights the economic burden of occupational injuries and fatalities in Washington's construction industry by estimating the direct, indirect, and quality of life costs resulting from fatal and nonfatal injuries. From 2008 to 2010, fatal and nonfatal construction injuries in Washington cost the Washington economy \$762 million, according to a Public Citizen analysis that adjusted findings from a 2004 research paper to account for inflation and the frequency of construction injuries in Washington from 2008 to 2010. This report breaks down the costs of fatal and nonfatal construction injuries during this

¹ AFL-CIO, DEATH ON THE JOB: THE TOLL OF NEGLECT 42 (2012), <http://bit.ly/ITBSV8>.

² *Fatal occupational injuries by selected worker characteristics and selected industry, Washington, private industry, 2003-2010*, U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS.

³ *Id.* The national rate was 3.5 injuries and illnesses per 100 workers employed by the private sector. Washington's rate as 4.8 per 100.

⁴ Waehrer G, Dong X, Miller T, Haile E and Men, Y. *Costs of Occupational Injuries in Construction in the United States*, 39 ACCIDENT ANALYSIS AND PREVENTION 1259-1266 (2007).

time period, and accounts for factors beyond workers' compensation costs, which are often cited as a proxy for the costs of construction accidents.

At a time in which the economy is struggling, the last thing Washington needs is a largely avoidable \$762 million burden. One way for Washington to address the economic burdens caused by fatal and nonfatal injuries is to take steps to reduce construction accidents. A significant and inexpensive step the state could take is to use its power as a chief purchaser of construction services to insist on high-standards. Specifically, the state could adopt a policy requiring prospective construction contractors to demonstrate excellent safety records and practices to be eligible to compete for state contracts. To take the simplest example, only construction firms that provide both worker and site supervisor safety training and that do not have serious occupational safety and health violations should be eligible to bid on public contracts. Such a process would require contractors that derive at least some of their revenue from the state to maintain high standards in all of their work, including that performed for private customers.

Workers, industry and government should not have to wait any longer for efforts to be made to reduce fatalities and injuries in the construction industry and the economic burdens they create. In addition to discussing the frequency of construction injuries in Washington and their associated costs, this report also proposes specific legislative language to encourage state construction contractors to engage in safe practices.

II. Data and Methods

The majority of the literature used in this paper draws from: the Bureau of Labor Statistics (BLS); the AFL-CIO's annual report(s) *Death on the Job: The Toll of Neglect*; and a 2004 study by Waehrer *et al.* that quantifies the costs of occupational injuries.⁵

The findings of Waehrer *et al.* are used in concert with recent data on the number of construction injuries and fatalities, as well as consumer price index data, to estimate the inflation-adjusted costs of construction injuries and fatalities in Washington for recent years. Appendix A explains how Waehrer *et al.* arrived at estimated costs, and how we adjusted such figures to account for recent data.

Although this report invokes the costs of injuries and fatalities to buttress the case that the Washington legislature should take steps to reduce the incidence of workplace accidents, this should not be interpreted as an endorsement of the use of cost-benefit analysis as a prerequisite for moving forward with public safety measures.

Policymakers who are beholden to cost-benefit analysis require government agencies to demonstrate that the quantifiable monetary benefits of any proposed action would outweigh the costs. Adherence to this philosophy inhibits problem-solving for numerous reasons. For instance, the formulas invoked for cost-benefit analyses invariably overstate the costs and understate the benefits. On the cost side, they often ignore the ability of industry to develop less-expensive solutions through innovation and economies of scale. On the benefits side, they typically do not permit agencies to place a value on protecting against likely harms that are not quantifiable. Ultimately, bowing to cost-benefit analysis prevents government agencies from implementing feasible solutions to major problems.

III. Construction: One of Washington's Most Dangerous Occupations

Fatalities and injuries in the construction industry are disproportionately high compared to other industries. For example, out of 4,114 worker fatalities in private industry in 2011, 721 or 17.5 percent were in construction.⁶ The leading causes of worker deaths on construction sites were falls, electrocution, being struck by an object, and being caught in or between an object.⁷ These "Fatal Four" were responsible for 57 percent construction

⁵ Waehrer G, Leigh JP, Cassady D, and Miller T., *Costs of Occupational Injury and Illness Across States*, 46 JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE 1084-1095 (2004). Two studies by Waehrer *et al.* are cited in this paper. Data calculations in the paper come are based on findings in the 2004 report.

⁶ *Construction's Fatal Four*, U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS (2011), <http://1.usa.gov/T1JoR8>

⁷ *Id.*

worker deaths in 2011. Eliminating the Fatal Four would save 410 workers' lives in America every year.⁸

A. Data About Construction Fatalities in Washington Recent Years

- In 2008, there were 84 fatal work injuries in Washington. Twenty-one of these workers were employed in the construction industry, representing 25 percent of workplace deaths.⁹
- In 2009, fatal work injuries in Washington claimed the lives of 76 workers, of whom nine worked in the construction industry, representing more than 11.8 percent of workplace deaths.¹⁰
- In 2010, 104 Washington workers were killed on the job. Of these, nine were construction workers, meaning construction accounted for 8.7 percent of occupational deaths.¹¹

B. Data About Construction-Related Injuries in Washington in Recent Years¹²

- In 2008, it was reported that 15,100 occupational injury and illness cases in Washington's construction industry occurred, according to the Bureau of Labor Statistics. Of these, 7,300 required days away from work, job transfer, or restriction.¹³
- Similarly in 2009, Washington's private sector construction industry recorded 11,600 occupational injury and illness cases, of which 5,500 required days away from work, job transfer, or restriction.¹⁴
- In 2010, 8,000 occupational injury and illness cases in Washington's construction industry occurred, of these, 3,800 required days away from work, job transfer, or restriction.¹⁵

⁸ *Id.*

⁹ *Fatal Occupational Injuries by Selected Worker Characteristics and Selected Industry, Washington, 2008-2009*, U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS.

¹⁰ *Id.*

¹¹ *Fatal Occupational Injuries by Selected Demographic Characteristics and Major Events or Exposures, Washington 2010*, U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS, <http://1.usa.gov/QdrIEi>

¹² All figures rounded by the Bureau of Labor Statistics to the nearest 100.

¹³ *Numbers of Nonfatal Occupational Injuries and Illnesses by Industry and Case Types, Washington, 2008*, U.S. DEPARTMENT LABOR, BUREAU OF LABOR STATISTICS.

¹⁴ *Numbers of Nonfatal Occupational Injuries and Illnesses by Industry and Case Types, Washington, 2009*, U.S. DEPARTMENT LABOR, BUREAU OF LABOR STATISTICS.

C. Summary

From 2008 to 2010, Washington reported 39 fatalities in the construction industry to the Bureau of Labor Statistics and 34,700 construction industry accidents, of which 16,600 required days away from work, job transfer, or restriction during the same years. Yet, workers in the construction industry are left with few options to safeguard themselves against these perilous conditions. The only means that workers have to mitigate hazards is their willingness to stand up and identify health and safety issues. However, it is widely understood that workers are reluctant to do so; fear of job loss and employer intimidation can supersede the potential loss of life or injury in today's construction market.

IV. The Costs of Injuries and Fatalities in Washington

The Occupational Safety and Health Act of 1970 states “that personal injuries and illnesses arising out of work situations impose a substantial burden upon, and are a hindrance to, interstate commerce in terms of lost production, wage loss, medical expenses, and disability compensation payments.”¹⁶ Days away from work due to occupational injuries are costing employers, workers and Washington taxpayers. Likewise, when occupational fatalities occur, more is lost than a day's work. The tragedies of workplace deaths devastate families and their surrounding communities.

This report relies on an analysis by Waehrer *et al.* (2004) coupled with more recent data to estimate the costs of occupational injuries in Washington. Waehrer *et al.* determined costs of occupational injuries and fatalities by adding up three broad categories of consequences from such incidents: direct costs, indirect costs and quality of life costs. Direct costs include payments for hospital, physician and allied services. Indirect costs refer to victim productivity losses, employer productivity losses and administrative cost associated with an occupational accident. Quality of life costs refer to the value attributed to the pain and suffering of victims and their families.¹⁷

The 2004 Waehrer *et al.* study found that the 1993 cost of fatal occupational injuries totaled \$3 million per fatal occupational injury across Washington's private industry occupations.¹⁸ This translates to a cost of \$4.5 million per fatal occupational injury in 2010.

¹⁵ *Numbers of Nonfatal Occupational Injuries and Illnesses by Industry and Case Types, Washington, 2010*. U.S. DEPARTMENT LABOR, BUREAU OF LABOR STATISTICS.

¹⁶ Occupational Safety and Health Act, S.2193, 91st Congress, § 2 (1970), <http://1.usa.gov/9gSBuk>.

¹⁷ Waehrer G, Leigh JP, Cassidy D, and Miller T, *Costs Of Occupational Injury and Illness Across States*, 46 JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE 1084-1095 (2004).

¹⁸ *Id.*

There were 39 fatal construction accidents in Washington from 2008 to 2010. Applying the inflation-adjusted \$4.5 million cost per fatality this translates to a total of \$175.5 million in costs for Washington.

Waehrer *et al.* estimated the costs of occupational nonfatal injuries in Washington in 1993 at \$23,391 per injury, which translates to \$35,298 in 2010 dollars. There were 16,600 construction injuries in Washington from 2008 to 2010.¹⁹ Applying Waehrer's inflation-adjusted cost per injury estimate yields the conclusion that the costs to the Washington economy due to construction-related injuries totaled \$586 million from 2008-2010.

Combining the estimates for the costs of fatalities and injuries, the total cost to Washington from construction-related deaths and injuries for the three years was \$762 million.

This estimate almost certainly understates actual costs because many of the factors Waehrer *et al.* included in their calculation have increased at a faster rate than inflation. This is particularly true for health care costs, which are one of the primary direct costs of occupational injuries.

V. Washington Occupational Safety and Health Inaction

Washington has elected to operate its own occupational safety and health program to oversee both public-sector and private-sector workers (excluding federal government employees). Currently, there are 25 states and two territories that administer their own OSHA programs. The Washington State Program is administered by the state's Department of Labor and Industries (DL&I), Division of Occupational Safety and Health (DOSH). In 2010, there were only 117 DOSH inspectors assigned to inspect 232,069 Washington workplaces.²⁰ With such insufficient resources, DOSH was only able to inspect 2.4 percent of Washington's workplaces in 2010. At this rate, it would take DOSH approximately 41 years to inspect each workplace in Washington once.²¹

Of the 5,644 DOSH workplace inspections in 2010, 1,694 concerned the construction industry, representing slightly more than 30 percent of all DOSH inspections.²² In 2009, DOSH inspected 7,422 workplaces, of which 2,523 were in the construction industry, representing 34 percent of all MOSH inspections.²³ Similarly, in 2008, DOSH inspected 7,841 workplaces, of which 2,789 were in the construction industry, representing 35 percent of all DOSH inspections. Even though DOSH has dedicated considerable resources

¹⁹ *Number and Rate Of Nonfatal Occupational Injuries and Illnesses by Selected Industry, Washington, Private Industry, 2008-2010*. U. S. DEPARTMENT LABOR, BUREAU OF LABOR STATISTICS.

²⁰ AFL-CIO, DEATH ON THE JOB: THE TOLL OF NEGLIGENCE, 164 (2011), <http://bit.ly/ITBSV8>.

²¹ *Id.*

²² *Id.*

²³ AFL-CIO, DEATH ON THE JOB: THE TOLL OF NEGLIGENCE, 164 (2010), <http://bit.ly/ITBSV8>.

to the construction industry, fatal and nonfatal injuries continue to occur at exceedingly high rates in the industry, and more needs to be done to deal with this problem.

VI. Ways to Address the Problem

More resources to conduct inspections are needed to ensure safe working conditions in Washington's construction industry. But due to challenging budget issues, the allocation of sufficient additional resources seems unlikely.

But the state's leaders could take a major, yet inexpensive, step toward addressing construction industry safety shortcomings simply by requiring that contractors meet safety standards to qualify to bid for public construction projects. Washington should implement a comprehensive policy to prequalify contractors who wish to perform public contracting services in the construction industry. This would make Washington a leader in this area. No state has yet introduced prequalification measures regarding occupational safety and health records as criteria to receive public construction contracts.

The idea of contractor prequalification is not a new one in Washington; the state already uses such a system for construction contractors for criteria other than workplace safety records. As it stands, Washington state agencies and municipalities prequalify contractors for public construction projects based on past performance, apprenticeship utilization requirements, and legal proceedings. The law does not yet call for consideration of occupational safety and health records in assessing contractors' past performance. However, adding these factors would be right in line with existing prequalification's practices, and, thus, fairly simple to implement. In order to mitigate potential hazards in public construction, Washington should shield itself from bad actors in the construction industry by developing a standardized questionnaire and rating system to assess bidders on objective metrics of occupational safety and health performance for the purpose of prequalifying bidders and their subcontractors on public construction contracts (Appendix B).

By doing so, Washington and its municipal construction awarding authorities can begin to weed out construction firms that are contributing to the economic burdens those construction fatalities and injuries create. Such a system would almost certainly improve safety in construction projects for private-sector clients as well, as contractors would need to maintain strong safety records in all of their work to remain eligible for public sector projects.

VII. Conclusion

For many years, Washington's employers have relied on DOSH for direction and guidance on occupational safety and health. DOSH's model idea is simple: develop a system for employers to adhere to, and hope that they will train their employees to perform their jobs safely. DOSH has also been the key for enforcement. Its inspectors visit workplaces to check for hazards and issue citations for violations.

But over the years, as budgets have been reduced and occupational safety and health staffing levels have failed to keep pace with the growth of industry, federal and state OSHAs alike have struggled to deal with workplace injuries and deaths and their associated costs.

However, there is light at the end of the tunnel. Although it must be acknowledged that implementing a prequalification process for public construction projects will not address all of the industry's safety problems, such a step has the potential to yield significant gains for minimal costs. Additionally, workers who are hired for public construction jobs could be confident that they are working for a company with demonstrated safety credentials.

Washington State should adopt legislation that speaks to these issues. It's the right thing to do and will help lower Washington's injury and fatality rates in the construction industry.

Appendix A

Calculations of Occupational Fatal and Nonfatal Injuries

Waehrer *et al.* determined the costs of workplace fatalities and injuries by adding up costs under three categories: direct costs, indirect costs, and quality of life costs.

Direct costs include payments for hospital visits, allied services, rehabilitation, nursing home care, medical equipment, burial costs, and insurance administrative costs for medical claims, payments for mental health treatment, police, fire, emergency transport, coroner services, and property damage.²⁴

Indirect costs refer to: victim productivity losses, which include wage losses and household production losses; employer productivity losses, which is time spent by supervisors and coworkers investigating accidents, juggling schedules, and recruiting and training replacements for injured workers; and administrative costs, which include the cost of administering Workers' Compensation programs.

Quality of life costs refer to the value attributed to the pain and suffering of victims and their families.²⁵

In this paper, we adjusted the costs per incident as reported by Waehrer *et al.* for inflation (in 2010 dollars), and multiplied the inflation-adjusted costs by Washington's frequency of incidents from 2008 to 2010.

In 1993, Waehrer *et al.* reported that 106 workers lost their lives across Washington's private industry occupations and concluded that these fatalities imposed a cost of \$317 million.

$\$317 \text{ million} \div 106 \text{ worker fatalities} = \$2,990,566.03$ (\$3.0 million) in 1993. This is the cost per fatality. Adjusted for inflation, this would equal $\$4,512,877.92$ (\$4.5 million) per fatality in 2010 dollars.

This report calculates the costs of Washington's construction related fatalities in 2008, 2009 and 2010. In 2008, there were 21 fatalities among construction workers, resulting in a calculated cost of $\$94,770,436.32$ (\$95.8 million). In 2009, there were 9 fatalities among construction workers, resulting in a calculated cost of $\$40,615,901.28$ (\$40.6 million). In 2010, there were 9 fatalities among construction workers, resulting in a calculated cost of $\$40,615,901.28$ (\$40.6 million). The combined costs were $\$176,002,234.88$ (\$176 million).

²⁴ Waehrer G, Leigh JP, Cassidy D, and Miller T, *Costs of occupational injury and illness across states*, 46 JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE 1084-1095 (2004).

²⁵ *Id.*

We used the same model to calculate the estimated cost of construction-related injuries in Washington for each corresponding year. Specifically:

Waehrer *et al.* calculated the cost of occupational injuries in Washington to be \$1.24 billion 1993. According to the Bureau of Labor Statistics, which Waehrer *et al.* used for their calculation of the number of injuries, there were 53,011 nonfatal occupational injuries and illnesses involving days away from work in Washington's private industry in 1993.

$\$1.24 \text{ billion} \div 53,011 \text{ nonfatal injuries} = \$23,391.37$ in 1993. This is the cost per nonfatal occupation injury. This would equal \$35,298.47 per nonfatal injury in 2010 dollars.

In 2008, there were 7,300 nonfatal injuries involving days away from work among construction workers, resulting in a calculated cost of \$257,678,831.00 (\$257.7 million). In 2009, there were 5,500 nonfatal injuries involving days away from work among construction workers, resulting in a calculated cost of \$194,141,585.00 (\$194.1 million). In 2010, there were 3,800 nonfatal injuries involving days away from work among construction workers, resulting in a calculated cost of \$134,134,186.00 (\$134.1 million). The combined costs were \$585,954,602 (\$586 million).

The combined costs of fatal and nonfatal occupational injuries in Washington for 2008, 2009 and 2010 were \$761,956,840.88 (\$762 million).²⁶

²⁶ Due to rounding, some category averages may not equal the total sum.

Appendix B

Model Bill for Worker Health and Safety on Public Construction Projects

Section 1. Title

This Act shall be known and may be cited as the Public Contractor Safety Act.

Section 2. Definitions

- (1) “Bidder” means a business or individual submitting or intending to submit an a bid for a construction contract
- (2) “Construction” means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind including painting and decoration
- (3) “Injury and Illness Incidence Rates” means any measurement based on the number of bidder- or subcontractor-reported non-fatal work-related injuries, cases of illness, or days during which employees were away from work, transferred to other jobs, or restricted in their performance of tasks in the workplace
- (4) "Awarding Authority" means a city, county, city and county, special district, or a public agency of {the state}, any department, division, public corporation, or public agency of this State, any public school board, public college, or public university, or two or more such entities acting jointly
- (5) "National Consensus Standard" means any occupational safety and health standard or modification thereof which has been adopted and promulgated by a nationally recognized standards-producing organization
- (6) “Occupational Safety and Health Agency” means (a) the United States Occupational Safety and Health Administration; (b) {the state OSHA department}; or (c) the occupational safety and health plan for any other public jurisdiction established under Section 18 of the federal Occupational Safety and Health Act (29 USC 667)
- (7) “Subcontractor” means a business or individual that performs construction work for a contractor, regardless of its tier
- (8) “Whistleblower” means an employee who discloses to those in authority within or outside of the corporation, mismanagement, corruption, illegality, or some other wrongdoing regarding workplace safety and health conditions.

Section 3. Bidder Health and Safety Prequalification

(1) The {state labor department} shall develop a standardized questionnaire and rating system to assess bidders on objective metrics of occupational safety and health performance for the purpose of prequalifying bidders and their subcontractors on construction contracts. The {state labor department} shall consult with occupational safety and health professionals, construction contractors, building trades unions, affected awarding authorities, and any other interested parties in developing these materials. The Department shall also review relevant scientific literature, national consensus standards, and federal Occupational Safety and Health Administration guidance documents to determine key occupational safety and health performance metrics for the purposes of this part. The questionnaire and rating system shall include, but not be limited to, assessment of the following for each bidder and subcontractor:

- a. Safety and Health Planning: Use of written, site-specific occupational health and safety plans that contain the following core elements:
 - i. methods for identifying, assessing, and documenting potential occupational safety and health hazards;
 - ii. methods for preventing and controlling, using the most effective methods, occupational safety and health hazards;
 - iii. communication of information to and training of employees;
 - iv. record keeping; and
 - v. regular evaluation of and continuous improvements to the site-specific occupational health and safety plan and its implementation

- b. Management Leadership: Commitment of company management to addressing health and safety of workers, other affected personnel, and general public.

- c. Employee Participation: Employee participation in identifying and resolving safety and health issues that includes:
 - i. Participation of frontline employees in the establishment, implementation, and evaluation of the company safety and health plan;
 - ii. Maintenance of company policies that encourage workers to report unsafe work conditions;
 - iii. Maintenance of company policies that encourage workers to report any work-related injuries;
 - iv. Maintenance of company policies that grant employees authority to immediately stop working in the event of hazardous conditions

d. Employee training: Provision of health and safety information and training to employees that includes:

- i. Use of one or more methods to communicate occupational hazards to employees;
- ii. Information and training in a language and format that is understandable to each employee.

e. Supervisor accountability: Use of evaluations of project supervisory personnel based on safety performance.

f. Compliance record: Employer's record of compliance with safety- or health-related laws or regulations to include:

- i. OSHA lost time incident frequency rates and OSHA recordable injury/illness frequency rates,
- ii. Worker's Compensation Experience Modification Rates;
- iii. Final assessments of citations and penalties by occupational safety and health agencies;
- iv. Receipt of and compliance with any safety- or health-related stop work orders; and
- v. Violations of any other laws related to occupational safety and health.

g. Any other factor the {state labor department} determines to be a useful metric to assess occupational safety and health performance.

(2) The {state labor department} shall determine the minimum score a bidder and its subcontractors must attain on the rating system to be eligible to bid on public construction contracts.

(3) Any awarding authority soliciting bids for construction contracts with an estimated value exceeding \$[] shall require that each prospective bidder and all of its subcontractors complete and submit the safety prequalification questionnaire developed under Subsection 1 along with any documentary evidence required to substantiate claims made in the questionnaire. The bidder shall attest to the accuracy and completeness of all information submitted in this part under penalty of perjury.

(4) Any awarding authority soliciting bids for construction contracts with an estimated value exceeding \$[] shall require the bidder to develop and implement a whistleblower policy regarding workplace safety and health that requires all directors, officers and employees to observe high standards of business and personal ethics in the conduct of their duties and responsibilities. This policy shall include but not be limited to describing

reporting responsibilities, reporting process, confidentiality protections, employee education regarding the policy, retaliation prohibitions, identifying a compliance officer and an annual review of the program's effectiveness.

(5) Any bidder shall be ineligible to submit a bid on or be awarded any construction contract whose estimated value exceeds \$[] if that bidder or any of its subcontractors do not meet the minimum standards of the awarding authority's safety prequalification assessment.

(6) Each awarding authority shall allow bidders and subcontractors the opportunity to apply for safety prequalification at least once every six (6) months. Awarding authorities shall require all bidders and subcontractors to undergo the safety prequalification procedure at least once per year.

(7) Each bidder shall provide the awarding authority a list of all subcontractors that will perform construction work for the contract. Bidders shall not permit any subcontractor that has not been prequalified under this section, at a minimum, to perform construction work for the contract.

Section 4. Debarment from Bidding on Construction Contracts

(1) Any bidder shall be ineligible to submit a bid on or be awarded any construction contract whose estimated value exceeds \$[] if that bidder does not furnish proof of current workers' compensation coverage as required under {state workers' compensation statute}.

(2) Any bidder shall be ineligible to submit a bid on or be awarded any construction contract whose estimated value exceeds \$[] if an Awarding Authority has determined in the preceding five years that a company officer, agent, or person with substantial ownership in the company provided false or misleading information under Section 3 of this Act.

(3) Any subcontractor that would, as a bidder, be ineligible to submit a bid on or be awarded a construction contract under this section shall be ineligible for prequalification by any awarding authority under Section 3 of this Act.