Chapter 296-56 WAC
Safety Standards for Longshore, Stevedore and Waterfront Related Operations
(Form Number 414-034-000)

This book contains rules for Safety Standards for longshore, stevedore and waterfront related operations, as adopted under the Washington Industrial Safety and Health Act of 1973 (Chapter 49.17 RCW).

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DOSH CONTACT INFORMATION:

- **Physical address:**
  7273 Linderson Way
  Tumwater, WA 98501-5414
  (Located off I-5 Exit 101 south of Tumwater.)
- **Mailing address:**
  DOSH Standards and Information
  PO Box 44810
  Olympia, WA 98504-4810
- Telephone: 1-800-423-7233
- For all L&I Contact information, visit https://www.lni.wa.gov/agency/contact/

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WAC 296-56-099 Definitions.

Approved. The equipment has been approved for the specified use by a nationally recognized testing laboratory.

Approved power-operated industrial truck. One listed or approved for the intended use by a nationally recognized testing laboratory.

Apron. That open portion of a marine terminal immediately adjacent to a vessel berth and used in the direct transfer of cargo between the terminal and vessel.

Assistant director for DOSH. The assistant director of DOSH services, department of labor and industries or their authorized representative.

Authorized. In reference to an employee's assignment, means selected by the employer for that purpose.

Cage (basket guard). A barrier enclosing or nearly enclosing a ladder's climbing space and fastened to one or both of the ladder's side rails or to another structure.

Cargo board. The typical wing or lip-type stevedore board hoisted to or from vessels by means of a bar bridle. Other pallet boards include all other platforms used to hold cargo for the purpose of transporting it from place to place.

Cargo door (transit shed door). A door designed to permit transfer of cargo to and from a marine terminal structure.

Cargo packaging. Any method of containment for shipment, including cases, cartons, crates, and sacks, but excluding large units such as intermodal containers, vans, or similar devices.

Confined space. A space that:

(a) Is large enough and so configured that an employee can bodily enter and perform assigned work; and

(b) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and

(c) Is not designed for continuous employee occupancy.

Conveyor. A device designed exclusively for transporting bulk materials, packages or objects in a predetermined path and having fixed or selective points of loading or discharge.

Danger zone. Any place in or about a machine or piece of equipment where an employee may be struck by or caught between moving parts, caught between moving and stationary objects or parts of the machine, caught between the material and a moving part of the machine, burned by hot surfaces or exposed to electric shock. Examples of danger zones are nip and shear points, shear lines, drive mechanisms, and areas beneath counterweights.

Designated person. A person who possesses specialized abilities in a specific area and is assigned by the employer to perform a specific task in that area.

Dock. A wharf or pier forming all or part of a waterfront facility, including marginal or quayside berthing facilities; not to be confused with “loading dock” as at a transit shed or container freight station, or with the body of water between piers or wharves.

Dock facilities. Includes all piers, wharves, sheds, aprons, dolphins, cranes, or other gear or equipment owned or controlled by the dock or facility owner, where cargo or materials are loaded, moved or handled to or from a vessel.

Dockboards (car and bridge plates). Devices for spanning short distances between rail cars or highway vehicles and loading platforms that do not expose employees to falls greater than 4 feet (1.22 m).

DOSH. Division of Occupational Safety and Health.

Elevator. A permanent hoisting and lowering mechanism with a car or platform moving vertically in guides and serving two or more floors of a structure. The term excludes such devices as conveyors, tiering or piling machines, material hoists, skip or furnace hoists, wharf ramps, lift bridges, car lifts, and dumpers.

Enclosed space. An indoor space, other than a confined space, that may contain or accumulate a hazardous atmosphere due to inadequate natural ventilation. Examples of enclosed spaces are trailers, railcars, and storage rooms.

Escalator. A power-driven continuous moving stairway principally intended for the use of persons.

Examination. As applied to material handling devices required to be certified by this chapter, means a comprehensive survey consisting of the criteria outlined in WAC 296-56-60093 through 296-56-60097. The examination is supplemented by a unit proof test in the case of annual survey.

Fixed ladder. A ladder, including individual rung ladders, permanently attached to a structure, building, or piece of equipment.

Fixed stairway. Interior or exterior stairs serving machinery, tanks, or equipment, and stairs to or from floors, platforms, or pits. The term does not apply to stairs intended only for fire exit purposes, to articulated stairs (the angle of which changes with the rise and fall of the base support) or to stairs forming an integral part of machinery.

Flammable atmosphere. An atmosphere containing more than ten percent of the lower flammable limit (LFL) of a flammable or combustible vapor or dust mixed with air. Such atmospheres are usually toxic as well as flammable.

Front-end attachments.

(a) As applied to power-operated industrial trucks, means the various devices, such as roll clamps, rotating and sideshifting carriages, magnets, rams, crane arms or booms, load stabilizers, scoops, buckets, and dumping bins, attached to the load end for handling lifts as single or multiple units.

(b) As applied to cranes, means various attachments applied to the basic machine for the performance of functions such as lifting, clamshell, or magnet services.

Fumigant. Is a substance or mixture of substances, used to kill pests or prevent infestation, which is a gas or is rapidly or progressively transformed to the gaseous state even though some nongaseous or particulate matter may remain and be dispersed in the treatment space.

Guarded. Shielded, fenced, or enclosed by covers, casings, shields, troughs, spillways or railings, or guarded by position or location. Examples of guarding methods are guarding by location (positioning hazards so they are inaccessible to employees) and point of operation guarding (using barrier guards, two-hand tripping devices, electronic safety devices, or other such devices).

Hazardous cargo, material, substance or atmosphere.

(a) Any substance listed in chapters 296-62 and 296-841 WAC;

(b) Any material in the hazardous materials table and hazardous materials communications regulations of the Department of Transportation, 49 C.F.R. Part 172;

(c) Any article not properly described by a name in the hazardous materials table and hazardous materials communications regulations of the Department of Transportation, 49 C.F.R. Part 172, but which is properly classified under the definition of those categories of dangerous articles given in 49 C.F.R. Part 173;

(d) Atmospheres having concentrations of airborne chemicals in excess of permissible exposure limits as defined in chapter 296-62 WAC; or

(e) Any atmosphere with an oxygen content of less than nineteen and one-half percent by volume.

Hot work. Riveting, welding, flame cutting or other fire or spark-producing operation.

House falls. Spans and supporting members, winches, blocks, and standing and running rigging forming part of a marine terminal and used with a vessel's cargo gear to load or unload by means of married falls.

Inspection. As applied to material handling devices required to be certified by this chapter, includes a complete visual examination of all visible parts of the device.

Intermodal container. A reusable cargo container of rigid construction and rectangular configuration intended to contain one or more articles of cargo or bulk commodities for transportation by water and one or more other transport modes without intermediate cargo handling. The term includes completely enclosed units, open top units, fractional height units, units incorporating liquid or gas tanks and other variations fitting into the container system, demountable or with attached wheels. It does not include cylinders, drums, crates, cases, cartons, packages, sacks, unitized loads or any other form of packaging.

Ladder safety device. A support system limiting an employee's drop or fall from the ladder, and which may incorporate friction brakes, lifelines and lanyards, or sliding attachments.

Loose gear. Removable or replaceable components of equipment or devices which may be used with or as a part of assembled material handling units for purposes such as making connections, changing line direction and multiplying mechanical advantage. Examples include shackles and snatch blocks.

Marina. A small harbor or boat basin providing dockage, supplies, and services for small craft.

Marine terminal. Wharves, bulkheads, quays, piers, docks, and other berthing locations and adjacent storage or contiguous areas and structures associated with the primary movement of cargo or materials from vessel to shore or shore to vessel. It includes structures which are devoted to receiving, handling, holding, consolidation, loading or delivery of waterborne shipments and passengers, and areas devoted to the maintenance of the terminal or equipment. The term does not include production or manufacturing areas having their own docking facilities and located at a marine terminal nor storage facilities directly associated with those production or manufacturing areas.

Other pallet boards. All other platforms used to hold cargo for the purpose of transporting it from place to place.

Permit-required confined space (permit space). A confined space that has one or more of the following characteristics:

(a) Contains or has a potential to contain a hazardous atmosphere;

(b) Contains a material that has the potential for engulfing an entrant;

(c) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or

(d) Contains any other recognized serious safety or health hazard.

Ramps. Other flat-surface devices for passage between levels and across openings not covered under “dockboards.”

Ship's stores. Materials that are aboard a vessel for the upkeep, maintenance, safety, operation, or navigation of the vessel, or for the safety or comfort of the vessel's passengers or crew.

Spiral stairway. One with closed circular form, uniform sector-shaped treads and a supporting column.

Spray booth. An enclosure containing a flammable or combustible spraying operation and confining and limiting the escape of paint, vapor and residue by means of a powered exhaust system.

Spraying area. Any area where flammable vapors, mists or combustible residues, dusts or deposits may be present due to paint spraying operations.

Well. A permanent complete enclosure around a fixed ladder, which is attached to the walls of the well.

WAC 296-56-600 Marine terminals.

Summary

Your responsibility: To protect employees from hazards associated with marine terminals.

You must meet the requirements…	*in this section*
Scope and applicability	WAC 296-56-60001
Variance and procedure	WAC 296-56-60003
Definitions	WAC 296-56-60005
Personnel	WAC 296-56-60006
Housekeeping	WAC 296-56-60007
Accident prevention program	WAC 296-56-60009
Emergency action plans	WAC 296-56-60010

WAC 296-56-60001 Scope and applicability.

(1) The rules included in this chapter apply throughout the state of Washington, to any and all waterfront operations under the jurisdiction of the department of labor and industries.

(2) These minimum requirements are promulgated in order to augment the general safety and health standards, and any other safety and health standards promulgated by the department of labor and industries which are applicable to all places of employment under the jurisdiction of the department of labor and industries. The rules of this chapter, and the rules of chapters 296-24, 296-62 and 296-800 WAC are applicable to all longshore, stevedore and related waterfront operations: Provided, That such rules shall not be applicable to those operations under the exclusive safety jurisdiction of the federal government.

(3) The provisions of this chapter shall prevail in the event of a conflict with, or duplication of, provisions contained in chapters 296-24, 296-62 and 296-800 WAC. Specific standards which are applicable include, but are not limited to:

(a) Electrical-Chapter 296-24 WAC Part L, and WAC 296-800-280.

(b) Toxic and hazardous substances are regulated by chapters 296-62 and 296-841 WAC. Where references to this chapter are given they are for informational purposes only. Where specific requirements of this chapter conflict with the provisions of chapters 296-62 and 296-841 WAC, this chapter prevails. Chapter 296-62 WAC does not apply when a substance or cargo is contained within a manufacturer's original, sealed, intact means of packaging or containment complying with the department of transportation or International Maritime Organization requirements.

(c) Hearing loss prevention (noise)-Chapter 296-817 WAC.

(d) Standards for commercial diving operations-Chapter 296-37 WAC.

(e) Safety requirements for scaffolding-Chapter 296-874 WAC.

(f) Safe practices of abrasive blasting operations-Chapter 296-818 WAC.

(g) Access to employee exposure and medical records-Chapter 296-802 WAC

(h) Respiratory protection-Chapter 296-842 WAC.

(i) Safety standards for grain handling facilities-Chapter 296-99 WAC.

(j) Hazard communication-WAC 296-901-140.

(k) Asbestos-Chapters 296-62 Part I-1 and 296-65 WAC.

(l) Permit - required confined spaces and confined space-Chapter 296-809 WAC.

(m) Servicing multi-piece and single-piece rim wheels--Chapter 296-864 WAC.

(n) First aid requirements--WAC 296-800-150.

(o) Employee emergency plan and fire prevention plans--Chapter 296-24 WAC Part G-1.

(4) The provisions of this chapter do not apply to the following:

(a) Fully automated bulk coal handling facilities contiguous to electrical power generating plants.

(b) Facilities subject to the regulations of the office of pipeline safety regulation of the materials transportation bureau, department of transportation, to the extent such regulations apply.

(5) WAC 296-62-074 shall apply to the exposure of every employee to cadmium in every employment and place of employment covered by chapter 296-56 WAC in lieu of any different standard on exposures to cadmium that would otherwise be applicable by virtue of those sections.

WAC 296-56-60003 Variance and procedure.

Realizing conditions may exist under which certain state standards will not have practical application. In these cases, the director of the department of labor and industries has made provisions for the issuance of variances. The director or his/her authorized representative may, pursuant to this section, RCW 49.17.080 and 49.17.090, and chapter 296-900 WAC, upon receipt of application and after investigation by the department, permit a variation from the requirements of this chapter. Any variance is limited to the particular case and application. It shall remain posted during the time which it is in effect. Variance application forms may be obtained from the department.

WAC 296-56-60006 Personnel.

(1) You must make sure machinery operators meet qualification:

(a) Only those employees determined by the employer to be competent by reason of training or experience, who understand the signs, notices, and operating instructions and are familiar with the signal code in use must be permitted to operate a crane, winch, or other power-operated cargo handling apparatus, or any power-operated vehicle, or give signals to the operator of any hoisting apparatus. Employees being trained and supervised by a designated individual may operate such machinery and give signals to operators during training.

(b) No employee known to have defective uncorrected eyesight or hearing, or to be suffering from heart disease, epilepsy, or similar ailments which may suddenly incapacitate the employee must be permitted to operate a crane, winch, other power-operated cargo handling apparatus, or a power-operated vehicle.

(c) Persons who have recovered from a heart attack must be exempted from the provisions of (b) of this subsection, as it pertains to their heart condition, provided:

(i) A medical release is obtained from their attending medical doctor.

(ii) The release must state that the operation of a crane, winch, power-operated cargo handling apparatus, or power-operated vehicle, will not present a hazard to themselves or others.

(iii) An examination by a medical doctor, and renewal of the work release certification is required annually.

(2) You must meet the following requirements for supervisory accident prevention proficiency:

(a) Immediate supervisors of cargo-handling operations of more than five persons must satisfactorily complete a course in accident prevention. Employees newly assigned to supervisory duties must be required to meet the provisions of this subsection (2)(a) within ninety days of such assignment.

(b) The course must consist of instruction suited to the particular operations involved.

(c) No minor under eighteen years of age must be employed in occupations involving the operation of any power-operated hoisting apparatus or assisting in such operations by performing work such as hooking on or landing drafts, rigging gear, etc.

WAC 296-56-60007 Housekeeping.

(1) You must keep active work areas free of equipment and materials not in use, and clear of debris, projecting nails, strapping and other sharp objects not necessary for the work in progress.

(2) You must make sure hatch beams, covers, and pontoons placed in terminal working areas are stowed in stable piles with beams secured against tipping or falling. Alternatively, beams may be laid on their sides. When beams and pontoons are stowed in tiers more than one high, dunnage or other suitable material must be used under and between tiers.

(3) You must not obstruct access to vessels, cranes, vehicles, or buildings with cargo and materials. Means of access and egress within buildings must be unobstructed.

(4) You must eliminate, to the extent possible, conditions causing slippery working or walking surfaces in immediate work areas used by employees.

WAC 296-56-60009 Accident prevention program.

(1) You must establish an accident prevention program, which provides equitable management-employee participation, in all establishments, industrial plants, or operations.

(2) You must initiate and maintain the accident prevention program necessary to comply with this section. DOSH may be contacted for assistance in initiating and maintaining an effective accident prevention program.

(3) You must tailor all accident prevention programs to the needs of the particular operation.

(4) You must have employer and employee representatives, as elected, delegated or appointed, to attend and actively take part in frequent and regular safety committee meetings.

(5) You must provide in the accident prevention programs for employer-employee safety meetings and frequent and regular safety inspections of job sites, materials, equipment, and operating procedures.

(6) You must maintain a record of safety activities, such as inspections and meetings, for a period covering the previous twelve months and must be made available, upon request, to noncompliance personnel of the department of labor and industries.

(7) You must ensure employees individually comply with all safety rules and cooperate with management in carrying out the accident prevention program.

(8) You must establish committees in each port to make effective the preceding statement and promote on-the-job accident prevention. These committees must consist of an equal number of port or stevedore company and longshoremen representatives at the job level with the industry or company safety supervisor serving as secretary and coordinator. Some functions of the committee are to maintain the interest of the workers in accident prevention by providing for their actual participation in the program, to direct their attention to the real causes of accidents, and to provide a means for making practical use of their intimate knowledge of working conditions and practices.

(9) It is intended that this program will produce mutually practical and effective recommendations regarding correction of accident-producing circumstances and conditions.

> Note: For first aid requirements, see WAC 296-800-150.

WAC 296-56-60010 Emergency action plans.

(1) You must develop and implement an emergency action plan. The emergency action plan must be in writing (except as provided in subsection (5)(d) of this section) and must cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies.

> **Note**: When an employer directs their employees to respond to an emergency that is beyond the scope of the emergency action plan developed in accordance with this section, then chapter 296-824 WAC must apply.

(2) You must include the following elements, at a minimum, in the plan:

(a) Emergency escape procedures and emergency escape route assignments;

(b) Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;

(c) Procedures to account for all employees after emergency evacuation has been completed;

(d) Rescue and medical duties for those employees who are to perform them;

(e) The preferred means of reporting fires and other emergencies; and

(f) Names or regular job titles of persons or departments that can be contacted for further information or explanation of duties under the plan.

(3) You must establish an employee alarm system that provides warning for necessary emergency action and for reaction time for safe escape of employees from the workplace or the immediate work area.

(4) You must establish the types of evacuation to be used in emergency circumstances.

(5) You must meet the following requirements for training:

(a) Before implementing the emergency action plan, you must designate and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.

(b) You must review the plan with each employee covered by the plan at the following times:

(i) Initially when the plan is developed;

(ii) Whenever the employee's responsibilities or designated action under the plan change; and

(iii) Whenever the plan is changed.

(c) You must review with each employee upon initial assignment those parts of the plan that the employee must know to protect the employee in the event of an emergency. The written plan must be kept at the workplace and be made available for employee review.

(d) You may communicate the plan orally to employees and need not maintain a written plan if you have ten or fewer employees.

WAC 296-56-60010A Waterfront operations.

Summary

This section applies to all waterfront operations in your workplace.

Your responsibility: To protect employees from waterfront operations in your workplace.

You must meet the requirements…	*in this section*
Slinging	WAC 296-56-60011
Stacking of cargo and pallets	WAC 296-56-60013
Coopering	WAC 296-56-60015
Line handling	WAC 296-56-60017
Standard gauge railroad operations	WAC 296-56-60019
Signals displayed by each maintenance crew	WAC 296-56-60021
Warning flags or lights	WAC 296-56-60023
Signals unobscured	WAC 296-56-60025
Audible warning system	WAC 296-56-60027
Safety observer on railroad switching	WAC 296-56-60029
Warning at road crossing	WAC 296-56-60031
Flying switches	WAC 296-56-60033
Clearance from railroad tracks	WAC 296-56-60035
Car plates	WAC 296-56-60037
Dockboards (bridge plates)	WAC 296-56-60039
Log handling	WAC 296-56-60041
Movement of barges and railcars	WAC 296-56-60043
Communication	WAC 296-56-60045
Open fires	WAC 296-56-60047

WAC 296-56-60011 Slinging.

(1) You must safely sling drafts before being hoisted. Loose dunnage or debris hanging or protruding from loads must be removed.

(2) You must hoist bales of cotton, wool, cork, wood pulp, gunny bags, or similar articles only by straps strong enough to support the weight of the bale. At least two hooks, each in a separate strap, must be used.

(3) You must only hoist unitized loads bound by bands or straps by the banding or strapping if the banding or strapping is suitable for hoisting and is strong enough to support the weight of the load.

(4) You must use additional means of hoisting to ensure safe lifting of unitized loads having damaged banding or strapping.

(5) You must use case hooks with cases only designed to be hoisted by these hooks.

(6) You must guide loads requiring continuous manual guidance during handling by guide ropes (tag lines) that are long enough to control the load.

(7) You must handle intermodal containers in accordance with WAC 296-56-60103.

(8) You must require employees to stay clear of the area beneath overhead drafts or descending lifting gear.

(9) You must not permit employees to ride the hook or the load.

(10) You must attach cargo handling bridles, such as pallet bridles, which are to remain attached to the hoisting gear while hoisting successive drafts, by shackles, or other positive means must be taken to prevent them from becoming accidentally disengaged from the cargo hook.

(11) You must sling drafts of lumber, pipe, dunnage and other pieces, the top layer of which is not bound by the sling, in such a manner as to prevent sliders. Double slings must be used on unstrapped dunnage, except, when due to the size of hatch or deep tank openings, it is impractical to use them.

(12) You must not load hand loaded buckets, tubs, bins and baskets used in handling bulk cargo above their rim.

WAC 296-56-60013 Stacking of cargo and pallets.

You must stack cargo, pallets, and other material stored in tiers in such a manner as to provide stability against sliding and collapse.

WAC 296-56-60015 Coopering.

You must perform repair and reconditioning of damaged or leaking cargo packaging (coopering) so as not to endanger employees.

WAC 296-56-60017 Line handling.

(1) You must not stow cargo or material or place vehicles where they obstruct the work surface, in order to provide safe access for handling lines while mooring and unmooring vessels.

(2) You must install grab lines or rails on the sides of permanent structures when stringpiece or apron width is insufficient for safe footing. (**"Stringpiece"** means a narrow walkway between the water edge of a berth and a shed or other structure.)

(3) You must light areas around bitts or cleats where workers perform their duties as line handlers as required by this chapter. There must be a nonslip surface around each bitt or cleat.

(4) You must ensure a six inch by six inch toeboard is installed if the handrail is omitted on the line handling side for walkways on which the mooring hawsers must be moved.

WAC 296-56-60019 Standard gauge railroad operations.

WAC 296-56-60019 through 296-56-60041 apply to standard gauge railroad operations.

(1) You must make sure work is performed in railcars only if floors of the railcars are in visibly safe condition for the work activity being conducted and the equipment being used.

(2) You must establish a route to allow employees to pass to and from places of employment without passing under, over or through railcars, or between cars less than ten feet (3 m) apart on the same track.

(3) You must direct that no employees remain in railcars after work is concluded. No employee may remain in a railcar after work is concluded.

(4) You must make sure railcars are chocked or otherwise prevented from moving:

   (a) While dockboards or carplates are in position; or

   (b) While employees are working within, on or under the railcars or near the tracks at the ends of the cars.

(5) You must take positive means to protect employees from exposure to impact from moving railcars when employees are working in, on, or under a railcar.

(6) You must protect employees by flags and derails set a minimum of fifty feet from one or both ends of the worksite when there is work being carried on, in, or under cars which subjects employees to the hazard of moving railroad equipment. Where the spur track switch is less than fifty feet from the work location, the switch padlocked in the open position may take the place of the derail. The blue flag must be placed at that point.

(7) You must remove or place unsecured and over-hanging stakes, wire straps, banding, and similar objects so as not to create hazards before cars are moved.

(8) You must institute all necessary controls during railcar movement to safeguard personnel. If winches or capstans are employed for movement, employees must stand clear of the hauling rope and must not stand between the rope and the cars.

(9) You must open doors slightly before being opened fully to ensure that the load has not shifted during transit. Special precautions must be taken if the doors being opened are visibly damaged.

(10) You must equip trucks or railcar doors with door openings attachments if power industrial trucks are used to open freight car doors. Employees must stand clear of the railcar doors while they are being opened and closed.

(11) You must only use railcar door openers or power trucks equipped with door opening attachments to open jammed doors.

(12) You must make sure employees do not remain in or on gondolas or flat cars when drafts that create overhead, caught-in, caught-between or struck-by hazards are being landed in or on the railcar. End gates, if raised, must be secured.

(13) You must make sure operators of railcar dumps have an unrestricted view of dumping operations and must have an emergency means of stopping movement.

(14) You must enclose recessed railroad switches to provide a level surface.

(15) You must post warning signs where doorways open onto tracks, at blind corners and at similar places where vision may be restricted.

(16) You must post warning signs if insufficient clearance for personnel exists between railcars and structures.

WAC 296-56-60021 Signals displayed by each maintenance crew.

You must have each maintenance crew display and remove its own set of blue signals.

WAC 296-56-60023 Warning flags or lights.

You must display a blue flag, bright colored flag or blue light at one or both ends of an engine, car or train to indicate that workers are under or about the railway equipment. When such warning devices are displayed, the equipment must not be coupled to or moved. On a dead end spur, a blue light or flag may be displayed adjacent to the switch opening while cars are being loaded or unloaded.

WAC 296-56-60025 Signals unobscured.

You must not place equipment which could obscure signals on the track.

WAC 296-56-60027 Audible warning system.

You must employ a clearly audible warning system when cars are being moved in areas where workers may be in the vicinity of the tracks. When the audible warning signal might not be heard above the surrounding noises, a person must be delegated and stationed close enough to the track crew to warn them, by contact, of the oncoming equipment.

WAC 296-56-60029 Safety observer on railroad switching.

You must have a person charged with the responsibility to warn of an approaching switch of the railway car or cars when persons are required to work between railway cars, underneath railway cars or in areas where switching is done, unless other reasonable and practical safeguards are provided.

WAC 296-56-60031 Warning at road crossing.

You must have the locomotive engineer sound an audible whistle, horn or bell to give adequate warning prior to switching across any road crossing. Whenever cars are pushed with a locomotive, a signalman must be located at the crossing to give signals in conjunction with other warnings by the engineer.

WAC 296-56-60033 Flying switches.

You must not use flying switches when switching railroad equipment in congested areas or across roadways or walkways.

WAC 296-56-60035 Clearance from railroad tracks.

You must not stack or pile materials closer than eight and one-half feet from the centerline of the railroad tracks.

WAC 296-56-60037 Car plates.

You must use a railway car plate whenever workers are required to move cargo into or out of a railway car that meets the following specifications:

(1) All car plates must be strong enough to carry maximum loads with a safety factor of three.

(2) All car plates must be provided with positive stops to prevent shifting of plates. One set of these stops must be adjustable to allow for different spaces between car door and platform.

(3) Car plates must be so shaped that edges will always bear on the floor of car and platform to prevent “teetering” or rocking.

(4) All car plates must have skid resistant surfaces.

(5) All car plates must be provided with toe or guard plates at the sides with a minimum height of four inches.

(6) All car plates must bear no less than six inches back from edge of platform.

(7) Maximum capacity of car plates must be marked in a conspicuous place.

(8) Car plates must be provided with an appropriate fixture to enable the plates to be lifted and moved by fork trucks.

WAC 296-56-60039 Dockboards (bridge plates).

(1) You must use portable and powered dockboards strong enough to carry the load imposed.

(2) You must secure portable dockboards in position, either by being anchored or equipped with devices which will prevent slipping.

(3) You must design and construct powered dockboards in accordance with commercial standards CS202-56 (1956) Industrial Lifts and Hinged Loading Ramps published by the United States Department of Commerce.

(4) You must provide handholds or other effective means on portable dockboards to permit safe handling.

(5) You must provide positive protection to prevent railroad cars from being moved while dockboards or bridge plates are in position.

WAC 296-56-60041 Log handling.

(1) You must ensure that structures (bunks) used to contain logs have rounded corners and rounded structural parts to avoid sling damage.

(2) You must have two or more binders or equivalently safe means of containment on logging trucks and railcars to secure logs during movement of the truck or car within the terminal. During unloading, logs must be prevented from moving while binders are being removed.

(3) You must hoist logs by two slings or by other gear designed for safe hoisting.

(4) You must not stack logs placed adjacent to vehicle curbs on the dock over one tier high unless placed in bunks or so stacked as not to roll or otherwise creating a hazard to employees.

(5) You must make sure before logs are slung up from the dock, they are stably supported to prevent spreading and to allow passage of slings beneath the load. When bunks or similar retaining devices are used, no log shall be higher than the stanchions or retaining members of the device.

(6) You must make sure a draft of logs for hoisting aboard ship will not vary in length more than twenty percent.

(7) You must make sure audible alarms meet the following requirements:

(a) All bidirectional machines, must be equipped with a horn, distinguishable from the surrounding noise level, which must be operated as needed when the machine is moving in either direction. The horn must be maintained in operable condition.

(b) Automatic back-up alarms must be installed on bidirectional equipment used to handle logs or containers and must be maintained in operable condition.

WAC 296-56-60043 Movement of barges and railcars.

You must not move barges and railcars by cargo runners (running rigging) from vessel cargo booms, cranes or other equipment not suitable for the purpose.

WAC 296-56-60045 Communication.

(1) You must provide crane operators, when practical and safe, with a radio or telephone to be in contact with the signalman or crane chaser in those cases where a signalman or crane chaser is required.

(2) You must make sure cargo handling operations are not carried on when noise-producing maintenance, construction or repair work interferes with communication of warnings or instructions.

WAC 296-56-60047 Open fires.

You must prohibit open fires and fires in drums or similar containers.

WAC 296-56-60048 Hazardous atmospheres and materials.

Summary

This section applies to all machines in your workplace.

Your responsibility: To protect employees from hazardous atmospheres and materials in the workplace.

You must meet the requirements…	*in this section*
Hazardous cargo	WAC 296-56-60049
Handling explosives or hazardous materials	WAC 296-56-60051
Hazardous atmospheres and substances	WAC 296-56-60053
Carbon monoxide	WAC 296-56-60055
Fumigants, pesticides, insecticides and hazardous preservatives (see also WAC 296-56-60049, 296-56-60051 and 296-60053	WAC 296-56-60057

WAC 296-56-60049 Hazardous cargo.

(1) You must ascertain whether any hazardous cargo is to be handled and must determine the nature of the hazard before cargo handling operations begin. You must inform employees of the nature of any hazard and any special precautions to be taken to prevent employee exposure, and must instruct employees to notify the employer of any leaks or spills.

(2) You must sling and secure all hazardous cargo so that neither the draft nor individual packages can fall as a result of tipping the draft or slackening of the supporting gear.

(3) You must remove employees from the affected area if hazardous cargo is spilled or if its packaging leak until the employer has ascertained the specific hazards, provided any equipment, clothing, ventilation and fire protection equipment necessary to eliminate or protect against the hazard. Cleanup employees must be instructed as to the safe method of cleaning up and disposing of the spill, and handling and disposing of leaking containers. Actual cleanup or disposal work must be conducted under the supervision of a designated person.

(4) The Department of Transportation and the United States Coast Guard impose requirements related to handling, storing and transportation of hazardous cargo (see 33 CFR Part 126, 46 CFR, 49 CFR).

WAC 296-56-60051 Handling explosives or hazardous materials.

(1) You must thoroughly inform all workers handling explosive or other hazardous material which is properly labeled pursuant to the Washington State Labeling Code, chapters 296-62 and 296-24 WAC, promulgated by the department of labor and industries; or the Explosive Act, chapter 70.74 RCW and chapter 296-52 WAC; or the Federal and Washington State Food, Drug and Cosmetic Acts; the Federal Insecticide, Fungicide and Rodenticide Act, the Washington Pesticide Act, chapter 17.21 RCW; the Federal Hazardous Substances Labeling Act; or the Interstate Commerce Commission and Foreign Commerce regulations; or explosives or other dangerous cargo which is reasonably known by the employers to be mislabeled or to be lacking a required label, of the explosive or hazardous nature of the cargo.

(2) You must ensure that all shipping operations including, but not limited to, handling, storage, and preparation, compliance with the standards of the Interstate Commerce Commission, the United States Coast Guard, or the safety rules developed by the Institute of Makers of Explosives are deemed proper and safe methods of operation.

(3) You must require the foreman to order the work in the immediate area to cease, if breakage should occur while handling explosives or other hazardous materials, until the hazard has been removed. You must use a safe method of handling such breakage and placing it in a remote, safe location.

(4) You must prohibit all workers supervising or engaged in the handling, hoisting, stowing of explosives, combustible oxidizing materials or flammable materials from smoking, except in designated areas. No person shall smoke within one hundred feet of any location where such materials are handled or stored.

(5) You must take care in chuting packaged explosives to ensure that one package is taken from the mat before starting another. Each package must be completely removed from the mat before another is placed on the chute.

(6) You must construct chutes only of wood in the loading of explosive merchandise in package form where chutes are used. All fastenings shall be of wooden pins, dowelings, or pegs. Metal fastenings may be used, provided they are countersunk.

(7) You must provide a stuffed mattress not less than four inches thick and of sufficient width and length to allow for safe landing of packages at the bottoms of the chutes.

(8) You must sling and secure drafts of hazardous or explosive cargo shall be so slung and secured that neither the draft nor individual packages can fall as a result of tipping the draft or slackening the supporting gear.

WAC 296-56-60053 Hazardous atmospheres and substances.

(1) Purpose and scope.

Important:
This section covers areas where a hazardous atmosphere or substance may exist, except where one or more of the following sections apply: 1. WAC 296-56-60049 Hazardous cargo. 2. WAC 296-56-60051 Handling explosives or hazardous materials 3. WAC 296-56-60055 Carbon monoxide 4. WAC 296-56-60057 Fumigants, pesticides, insecticides and hazardous preservatives 5. WAC 296-56-60107 Terminal facilities handling menhaden and similar species of fish 6. WAC 296-56-60235 Welding, cutting and heating (hot work) 7. WAC 296-56-60237 Spray painting

(2) You must make a determination of hazard:

(a) Whenever a room, building, vehicle, railcar or other space contains or has contained a hazardous atmosphere, a designated and appropriately equipped person must test the atmosphere before entry to determine whether a hazardous atmosphere exists.

(b) Records of results of any tests required by this section must be maintained for at least thirty days.

(3) You must make sure tests are made by a designated person to ensure that the atmosphere is not hazardous when mechanical ventilation is used to maintain a safe atmosphere.

(4) You must make sure only designated persons enter hazardous atmospheres. The following provisions apply:

(a) Persons entering a space containing a hazardous atmosphere must be protected by respiratory and emergency protective equipment meeting the requirements of chapter 296-842 WAC;

(b) Persons entering a space containing a hazardous atmosphere must be instructed in the nature of the hazard, precautions to be taken, and the use of protective and emergency equipment. Standby observers, similarly equipped and instructed, must continuously monitor the activity of employees within such space; and

(c) Except for emergency or rescue operations, employees must not enter into any atmosphere which has been identified as flammable or oxygen deficient (less than nineteen and one-half percent oxygen). Persons who may be required to enter flammable or oxygen deficient atmospheres in emergency operations must be instructed in the dangers attendant to those atmospheres and instructed in the use of self-contained breathing apparatus, which must be utilized.

(d) To prevent inadvertent employee entry into spaces that have been identified as having hazardous, flammable or oxygen deficient atmospheres, appropriate warning signs or equivalent means must be posted at all means of access to those spaces.

(5) You must make sure only designated employees protected from the harmful effects of asbestos as required by WAC 296-62-07517 and chapter 296-65 WAC, clean up spills when the packing of asbestos cargo leaks.

WAC 296-56-60055 Carbon monoxide.

(1) You must maintain the carbon monoxide content of the atmosphere in a room, building, vehicle, railcar or any enclosed space shall be maintained below fifty parts per million (0.005%) as an eight-hour time-weighted average. Employees must be removed from the enclosed space if the carbon monoxide concentration exceeds one hundred parts per million (0.01%).

(2) You must conduct tests to determine carbon monoxide concentration whenever necessary to ensure that employee exposure does not exceed the limits specified in subsection (1) of this section.

(3) You must make sure tests for carbon monoxide concentration are made by designated persons using gas detector tube units certified by NIOSH under 30 C.F.R. Part 11 or other measuring instruments whose accuracy is as great or greater.

(4) You must make available a record of the date, time, location and result of carbon monoxide tests for at least thirty days.

WAC 296-56-60057 Fumigants, pesticides, insecticides and hazardous preservatives (see also WAC 296-56-60049, 296-56-60051 and WAC 296-62-60053.

(1) You must make a determination as to whether a hazard atmosphere is present whenever cargo in a space is or has been stowed, handled, or treated with a fumigant, pesticide, insecticide, or hazardous preservative. Only employees protected as required in subsection (5) of this section shall enter the space if it is hazardous.

(2) You must make sure tests to determine the atmospheric concentration of chemicals used to treat cargo are:

(a) Appropriate for the hazard involved;

(b) Conducted by designated persons; and

(c) Performed at the intervals necessary to ensure that employee exposure does not exceed the permissible exposure limit for the chemical involved, see chapters 296-62 and 296-841 WAC.

(3) You must make available any test results for at least thirty days.

(4) You must make sure chemicals are only applied to cargoes by designated persons.

(5) You must make sure only designated persons enter hazardous atmospheres. Whenever a hazardous atmosphere is entered the following provisions apply:

(a) Persons entering a space containing a hazardous atmosphere must be protected by respiratory and emergency protective equipment meeting the requirements of Part G of this standard; and

(b) Persons entering a space containing a hazardous atmosphere must be instructed in the nature of the hazard, precautions to be taken, and the use of protective and emergency equipment. Standby observers, similarly equipped and instructed, must continuously monitor the activity of employees within such a space.

(6) You must clearly post signs where fumigants, pesticides or hazardous preservatives have created a hazardous atmosphere. These signs must note the danger, identify specific chemical hazards, and give appropriate information and precautions, including instructions for the emergency treatment of employees affected by any chemical in use.

(7) You must aerate the contents of a container by opening the container doors for a period of forty-eight hours after the completion of fumigation and prior to loading in the case of containerized shipments of fumigated tobacco. When tobacco is within shipping cases having polyethylene or similar bag liners, the aeration period must be seventy-two hours. You must obtain a written warranty from the fumigation facility stating that the appropriate aeration period has been met.

WAC 296-56-60070 Cargo handling gear and equipment.

Summary

This section applies to all cargo handling gear and equipment in your workplace.

Your responsibility: To protect employees from cargo handling gear and equipment hazards in your workplace.

You must meet the requirements…	*in this section*
House falls	WAC 296-56-60071
Miscellaneous auxiliary gear	WAC 296-56-60073
Cargo boards and other type pallet boards	WAC 296-56-60075
Powered industrial trucks	WAC 296-56-60077
General rules applicable to vehicles	WAC 296-56-60079
Multipiece and single-piece rim wheels	WAC 296-56-60081
Cranes and derricks	WAC 296-56-60083
Crane load and limit devices	WAC 296-56-60085
Winches	WAC 296-56-60087
Conveyors	WAC 296-56-60089
Spouts, chutes, hoppers, bins, and associated equipment	WAC 296-56-60091
Certification of marine terminal material handling devices	WAC 296-56-60093

You must meet the requirements…	*in this section*
Advisory crane certification panel	WAC 296-56-60095
Unit proof load test and inspection	WAC 296-56-60097
Examination and inspection of cranes and derricks	WAC 296-56-60098
Hand tools	WAC 296-56-60099

WAC 296-56-60071 House falls.

(1) You must secure span beams to prevent accidental dislodgment.

(2) You must provide a safe means of access for employees working with house fall blocks.

(3) You must have designated employees inspect chains, links, shackles, swivels, blocks and other loose gear used in house fall operations before each day's use. Defective gear must not be used.

WAC 296-56-60073 Miscellaneous auxiliary gear.

(1) You must meet the following requirements for routine inspections:

(a) At the completion of each use, loose gear such as slings, chains, bridles, blocks, and hooks must be so placed as to avoid damage to the gear. Loose gear must be inspected and any defects corrected before re-use.

(b) All loose gear must be inspected by the employer or their authorized representative before each use and, when necessary, at intervals during its use, to ensure that it is safe. Any gear which is found upon inspection to be unsafe must not be used until it is made safe.

(c) Defective gear must not be used. Distorted hooks, shackles, or similar gear must be discarded.

(d) Chains or other gear which have been lengthened, altered, or repaired by welding must be properly heat treated, and before again being put into use, must be tested and reexamined in the manner set forth in WAC 296-56-60097 and 296-56-60098.

(2) You must maintain a record of the dates and results of the tests with each unit of gear concerned clearly identified. The records must be available for examination by division of consultation and compliance personnel and the employee safety committee.

(3) You must meet the following requirements for wire rope and wire rope slings:

(a) You must ascertain and adhere to the manufacturer's recommended ratings for wire rope and wire rope slings and must have such ratings available at the terminal. When the manufacturer is unable to supply such ratings, you must use the tables for wire rope and wire rope slings found in American National Safety Standard for Slings, ANSI/ASME B30.9-1984. A design safety factor of at least five must be maintained for the common sizes of running wire used as falls, in purchases or in such uses as light load slings. Wire rope with a safety factor of less than five may be used only:

(i) In specialized equipment, such as cranes designed to be used with lesser wire rope safety factors;

(ii) In accordance with design factors in standing rigging applications; or

(iii) For heavy lifts or other purposes for which a safety factor of five is impractical and for which the employer can demonstrate that equivalent safety is ensured.

(b) Wire rope or wire rope slings exhibiting any of the following conditions must not be used:

(i) Ten randomly distributed broken wires in one rope lay or three or more broken wires in one strand in one rope lay;

(ii) Kinking, crushing, bird caging, or other damage resulting in distortion of the wire rope structure;

(iii) Evidence of heat damage;

(iv) Excessive wear, corrosion, deformation or other defect in the wire or attachments, including cracks in attachments;

(v) Any indication of strand or wire slippage in end attachments; or

(vi) More than one broken wire in the close vicinity of a socket or swaged fitting.

(c) Four by twenty-nine (4 x 29) wire rope must not be used in any running rigging.

(d) Protruding ends of strands in splices on slings and bridles must be covered or blunted. Coverings must be removable so that splices can be examined. Means used to cover or blunt ends must not damage the wire.

(e) Where wire rope clips are used to form eyes, you must adhere to the manufacturer's recommendations, which must be available at the terminal. If “U” bolt clips are used and the manufacturer's recommendations are not available, Table C-1 must be used to determine the number and spacing of clips. “U” bolts must be applied with the “U” section in contact with the dead end of the rope.

Table C-1 Number and Spacing of U-Bolt Wire Rope Clips			
Improved Plow Steel, Rope Diameter	**Minimum Number of Clips**		**Minimum Spacing**
Inches (cm)	**Drop Forged**	**Other Material**	**Inches (cm)**
1/2 or less (1.3)	3	4	3 (7.6)
5/8 (1.6)	3	4	3 3/4 (9.5)
3/4 (1.9)	4	5	4 1/2 (11.4)
7/8 (2.2)	4	5	5 1/4 (13.3)
1 (2.5)	5	7	6 (15.2)
1 1/8 (2.9)	6	7	6 3/4 (17.1)
1 1/4 (3.2)	6	8	7 1/2 (19.1)
1 3/8 (3.5)	7	8	8 1/4 (21.0)
1 1/2 (3.8)	7	9	9 (22.9)
1 1/4 (3.2)	6	8	7 1/2 (19.1)
1 3/8 (3.5)	7	8	8 1/4 (21.0)
1 1/2 (3.8)	7	9	9 (22.9)

(f) Wire rope must not be secured by knots.

(g) Eyes in wire rope bridles, slings, bull wires, or in single parts used for hoisting must not be formed by wire rope clips or knots.

(h) Eye splices in wire ropes must have at least three tucks with a whole strand of the rope and two tucks with one-half of the wire cut from each strand. Other forms of splices or connections which are demonstrated to be equally safe may be used.

(i) Except for eye splices in the ends of wires and for endless rope slings, each wire rope used in hoisting or lowering, or in bulling cargo, must consist of one continuous piece without knot or splice.

(4) You must meet the following requirements for natural fiber rope:

(a) You must ascertain the manufacturer's ratings for the specific natural fiber rope used and have such ratings available at the terminal. The manufacturer's ratings must be adhered to and a minimum design safety factor of five maintained.

(b) Eye splices must consist of at least three full tucks. Short splices must consist of at least six full tucks, three on each side of the centerline.

(5) You must meet the following requirements for synthetic rope:

(a) You must adhere to the manufacturer's ratings and use recommendations for the specific synthetic fiber rope used and must have such ratings available at the terminal.

(b) Unless otherwise recommended by the manufacturer, when synthetic fiber ropes are substituted for manila ropes of less than three inches (7.62 cm) circumference, the substitute must be of equal size. Where substituted for manila rope of three inches or more in circumference, the size of the synthetic rope must be determined from the formula:

$$C=\sqrt{.6(C_s^2)+.4(C_m^2)}$$

Where C = the required circumference of the synthetic rope in inches, Cs = the circumference to the nearest one-quarter inch of a synthetic rope having a breaking strength not less than that of the size manila rope that would be required by subsection (4) of this section, and Cm = the circumference of manila rope in inches which would be required by subsection (4) of this section**.**

(c) In making such substitution, it must be ascertained that the inherent characteristics of the synthetic fiber are suitable for hoisting.

(6) You must remove natural or synthetic rope having any of the following defects from service:

(a) Abnormal wear;

(b) Powdered fiber between strands;

(c) Sufficient cut or broken fibers to affect the capacity of the rope;

(d) Variations in the size or roundness of strands;

(e) Discolorations other than stains not associated with rope damage;

(f) Rotting; or

(g) Distortion or other damage to attached hardware.

(7) You must use properly fitting thimbles where any rope is secured permanently to a ring, shackle or attachment, where practical.

(8) You must meet the following requirements for synthetic web slings:

(a) Slings and nets or other combinations of more than one piece of synthetic webbing assembled and used as a single unit (synthetic web slings) must not be used to hoist loads in excess of the sling's rated capacity.

(b) Synthetic web slings must be removed from service if they exhibit any of the following defects:

(i) Acid or caustic burns;

(ii) Melting or charring of any part of the sling surface;

(iii) Snags, punctures, tears or cuts;

(iv) Broken or worn stitches;

(v) Distortion or damage to fittings; or

(vi) Display of visible warning threads or markers designed to indicate excessive wear or damage.

(c) Defective synthetic web slings removed from service must not be returned to service unless repaired by a sling manufacturer or similar entity. Each repaired sling must be proof tested by the repairer to twice the slings' rated capacity prior to its return to service. You must retain a certificate of the proof test and make it available for examination.

(d) Synthetic web slings provided by you must only be used in accordance with the manufacturer's recommendations, which must be made available upon request.

(e) Fittings must have a breaking strength at least equal to that of the sling to which they are attached and must be free of sharp edges.

(9) You must meet the following requirements for chains and chain slings used for hoisting.

(a) You must adhere to the manufacturer's recommended ratings for safe working loads for the sizes of the wrought iron and alloy steel chains and chain slings used and must have such ratings available. When the manufacturer is unable to provide such ratings, you must use the tables for chains and chain slings found in American National Safety Standard for Slings, ANSI B30.9-1971.

(b) Proof coil steel chain, also known as common or hardware chain, and other chain not recommended by the manufacturer for slinging or hoisting must not be used for slinging or hoisting.

(c) Sling chains, including end fastenings, must be inspected for visible defects before each day's use and as often as necessary during use to ensure integrity of the sling.

(i) Thorough inspections of chains in use must be made quarterly to detect wear, defective welds, deformation, increase in length or stretch. The month of inspection must be indicated on each chain by color of paint on a link or by other effective means.

(ii) Chains must be removed from service when maximum allowable wear, as indicated in Table C-2, is reached at any point of link.

(iii) Chain slings must be removed from service when stretch has increased the length of a measured section by more than five percent; when a link is bent, twisted or otherwise damaged; or when a link has a raised scarf or defective weld.

(iv) Only designated persons shall inspect chains used for slinging and hoisting.

Table C-2 Maximum Allowable Wear at Any Point of Link

Chain Size		Maximum Allowable Wear	
Inches	**(cm)**	**Inches**	**(cm)**
1/4 (9/32)	(0.6)	3/64	(0.1)
3/8	(1.0)	5/64	(0.2)
1/2	(1.3)	7/64	(0.3)
5/8	(1.6)	9/64	(0.4)
3/4	(1.9)	5/32	(0.4)
7/8	(2.2)	11/64	(0.4)
1	(2.5)	3/16	(0.5)
1 1/8	(2.9)	7/32	(0.6)
1 1/4	(3.2)	1/4	(0.6)
1 3/8	(3.5)	9/32	(0.7)
1 1/2	(3.8)	5/16	(0.8)
1 3/4	(4.4)	11/32	(0.9)

(d) Chains must only be repaired under qualified supervision. Links or portions of chain defective under any of the criteria under (c) of this subsection must be replaced with properly dimensioned links or connections of material similar to that of the original chain. Before repaired chains are returned to service, they must be tested to the proof test load recommended by the manufacturer for the original chain. Tests must be performed by the manufacturer or must be certified by an agency accredited for the purpose under WAC 296-56-60093. Test certificates must be available at the terminal.

(e) Wrought iron chains in constant use must be annealed or normalized at intervals not exceeding six months. Heat treatment certificates must be available at the terminal. Alloy chains must not be annealed.

(f) Kinked or knotted chains must not be used for lifting. Chains must not be shortened by bolting, wiring or knotting. Makeshift links or fasteners such as wire, bolts or rods must not be used.

(g) Hooks, rings, links and attachments affixed to sling chains must have rated capacities at least equal to that of the chains to which they are attached.

(h) Chain slings must bear identification of size, grade and rated capacity.

(10) You must meet the following requirements for shackles.

(a) If available, the manufacturer's recommended safe working loads for shackles must not be exceeded. In the absence of manufacturer's recommendations, Table C-3 must apply.

(b) Screw pin shackles used aloft in house fall or other gear, except in cargo hook assemblies, must have their pins moused or otherwise effectively secured.

TABLE C-3 Safe Working Loads for Shackles

Material Size		Pin Diameter		Safe Working Load in 2,000 lb. Tons
Inches	(cm)	Inches	(cm)	
1/2	(1.3)	5/8	(1.6)	1.4
5/8	(1.6)	3/4	(1.9)	2.2
3/4	(1.9)	7/8	(2.2)	3.2
7/8	(2.2)	1	(2.5)	4.3
1	(2.5)	1 1/8	(2.9)	5.6
1 1/8	(2.9)	1 1/4	(3.2)	6.7
1 1/4	(3.2)	1 3/8	(3.5)	8.2
1 3/8	(3.5)	1 1/2	(3.8)	10.0
1 1/2	(3.8)	1 5/8	(4.1)	11.9
1 3/4	(4.4)	2	(5.1)	16.2
2	(5.1)	2 1/4	(5.7)	21.2

(c) Tables G-2 through G-5 must be used to determine the safe working loads of various sizes and classifications of improved plow steel wire rope slings with various types of terminals. For sizes, classifications and grades not included in these tables the safe working load recommended by the manufacturer for specific, identifiable products must be followed, however, a safety factor of not less than five must be maintained.

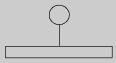
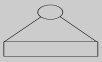
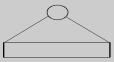
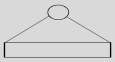
Table G-1 Manila Rope In Pounds or Tons of 2,000 Pounds					
Circum-ference	**Diameter In Inches**	**Single Leg** 	**60 Degree**	**45 Degree** 	**30 Degree** 
		Lbs.	**Lbs.**	**Lbs.**	**Lbs.**
3/4	1/4	120	204	170	120
1	5/16	200	346	282	200
1 1/8	3/8	270	467	380	270
1 1/4	7/16	350	605	493	350
1 3/8	15/32	450	775	635	450
1 1/2	1/2	530	915	798	530
1 3/4	9/16	690	1190	973	690
2	5/8	880	1520	1240	880
2 1/4	3/4	1080	1870	1520	1080
2 1/2	13/16	1300	2250	1830	1300
2 3/4	7/8	1540	2660	2170	1540
3	1	1800	3120	2540	1800
		Tons	**Tons**	**Tons**	**Tons**
3 1/4	1 1/16	1.0	1.7	1.4	1.0
3 1/2	1 1/8	1.2	2.1	1.7	1.2
3 3/4	1 1/4	1.35	2.3	1.9	1.35
4	1 5/16	1.5	2.6	2.1	1.5
4 1/2	1 1/2	1.8	3.1	2.5	1.8
5	1 5/8	2.25	3.9	3.2	2.25
5 1/2	1 3/4	2.6	4.5	3.7	2.6
6	2	3.1	5.4	4.4	3.1
6 1/2	2 1/8	3.6	6.2	5.1	3.6

Table G-2 Rated Capacities for Improved Plow Steel, Independent Wire Rope Core, Wire Rope, and Wire Slings (in Tons of 2,000 Pounds)						
Rope Diameter Inches	**Single Leg**					
	Vertical			**Choker**		
	A	**B**	**C**	**A**	**B**	**C**
6 x 19 Classification						
1/4"	.59	.56	.53	.44	.42	.40
3/8"	1.3	1.2	1.1	.98	.93	.86
1/2"	2.3	2.2	2.0	1.7	1.6	1.5
5/8"	3.6	3.4	3.0	2.7	2.5	2.2
3/4"	5.1	4.9	4.2	3.8	3.6	3.1
7/8"	6.9	6.6	5.5	5.2	4.9	4.1
1"	9.0	8.5	7.2	6.7	6.4	5.4
1 1/8"	11	10	9.0	8.5	7.8	6.8
6 x 37 Classification						
1 1/4"	13	12	10	9.9	9.2	7.9
1 3/8"	16	15	13	12	11	9.6
1 1/2"	19	17	15	14	13	11
1 3/4"	26	24	20	19	18	15
2"	33	30	26	25	23	20
2 1/4"	41	38	33	31	29	25

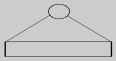
(A) Socket or Swaged Terminal Attachment.
(B) Mechanical Sleeve Attachment.
(C) Hand Tucked Splice Attachment

Table G-3 Rated Capacities for Improved Plow Steel, Independent Wire Rope Core, Wire Rope Slings (in Tons of 2,000 Pounds)												
	Two leg bridle or basket hitch											
Rope dia. Inches	**Vertical**			**0 Degree**			**45 Degree**			**30 Degree** 		
	A	**B**	**C**	**A**	**B**	**C**	**A**	**B**	**C**	**A**	**B**	**C**
6 x 19 Classification												
1/4"	1.2	1.1	1.0	1.0	.97	.92	.83	.79	.75	.59	.56	.53
3/8"	2.6	2.5	2.3	2.3	2.1	2.0	1.8	1.81	1.6	1.3	1.2	1.1
1/2"	4.6	4.4	3.9	4.0	3.8	3.4	3.2	3.1	2.8	2.3	2.2	2.0
5/8"	7.2	6.8	6.0	6.2	5.9	5.2	5.1	4.8	4.2	3.6	3.4	3.0
3/4"	10	9.7	8.4	8.9	8.4	7.3	7.2	6.9	5.9	5.1	4.9	4.2
7/8"	14	13	11	12	11	9.6	9.8	9.3	7.8	6.9	6.6	5.5
1"	18	17	14	15	15	12	13	12	10	9.0	8.5	7.2
1 1/8"	23	21	18	19	18	16	16	15	13	11	10	9.0
6 x 37 Classification												
1 1/4"	26	24	21	23	21	18	19	17	15	13	12	10
1 3/8"	32	29	25	28	25	22	22	212	18	16	15	13
1 1/2"	38	35	30	33	30	26	27	25	21	19	17	15
1 3/4"	51	47	41	44	41	35	36	33	29	26	24	20
2"	66	61	53	57	53	46	47	43	37	33	30	26
21/4"	83	76	66	72	66	57	58	54	47	41	38	33

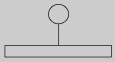
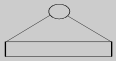
(A) Socket or Swaged Terminal Attachment.
(B) Mechanical Sleeve Attachment.
(C) Hand Tucked Splice Attachment.

Table G-4 Rated Capacities for Improved Plow Steel, Firer Core, Wire Rope, and Wire Rope Slings (in Tons of 2,000 Pounds)						
Rope Diameter Inches	**Single Leg**					
	Vertical			**Choker**		
	A	**B**	**C**	**A**	**B**	**C**
6 x 19 Classification						
1/4"	.55	.51	.49	.41	.38	.37
3/8"	1.2	1.1	1.1	.91	.85	.80
1/2"	2.1	2.0	1.8	1.6	1.5	1.4
5/8"	3.3	3.1	2.8	2.5	2.3	2.1
3/4"	4.8	4.4	3.9	3.6	3.3	2.9
7/8"	6.4	5.9	5.1	4.8	4.5	3.9
1"	8.4	7.7	6.7	6.3	5.8	5.0
1 1/8"	10	9.5	8.4	7.9	7.1	6.3
6 x 37 Classification						
1 1/4"	12	11	9.8	9.2	8.3	7.4
1 3/8"	15	13	12	11	10	8.9
	Vertical			**Choker**		
	A	**B**	**C**	**A**	**B**	**C**
1 1/2"	17	16	14	13	12	10
1 3/4"	24	21	19	18	16	14
2"	31	28	25	23	21	18

(A) Socket or Swaged Terminal Attachment.
(B) Mechanical Sleeve Attachment.
(C) Hand Tucked Splice Attachment

Table G-5 Rated Capacities for Improved Plow Steel, Fiber Core, Wire Rope Slings (in Tons of 2,000 Pounds)												
	Two-leg bridle or basket hitch											
Rope dia. inches	**Vertical**				**60 Degree**		**45 Degree**		**30 Degree** 			
	A	**B**	**C**	**A**	**B**	**C**	**A**	**B**	**C**	**A**	**B**	**C**
6 x 19 Classification												
1/4"	1.1	1.0	.99	.95	.88	.85	.77	.72	.70	.55	.51	.49
3/8"	2.4	2.2	2.1	2.1	1.9	1.8	1.7	1.6	1.5	1.2	1.1	1.1
1/2"	4.3	3.9	3.7	3.7	3.4	3.2	3.0	2.8	2.6	2.1	2.0	1.8
5/8"	6.7	6.2	5.6	5.8	5.3	4.8	4.7	4.4	4.0	3.3	3.1	2.8
3/4"	9.5	8.8	7.8	8.2	7.6	6.8	6.7	6.2	5.5	4.8	4.4	3.9
7/8"	13	12	10	11	10	8.9	9.1	8.4	7.3	6.4	5.9	5.1
1"	17	15	13	14	13	11	12	11	9.4	8.4	7.7	6.7
1 1/2"	21	19	17	18	16	14	15	13	12	10	9.5	8.4
6 x 37 Classification												
1 1/4"	25	22	20	21	19	17	17	16	14	12	11	9.8
1 3/8"	30	27	24	26	23	20	21	19	17	15	13	12
1 1/2"	35	32	28	30	27	24	25	22	20	17	16	14
1 3/4"	48	43	38	41	37	33	34	30	27	24	21	19
2"	62	55	49	53	48	43	43	39	35	31	28	25

(A) Socket or Swaged Terminal Attachment.
(B) Mechanical Sleeve Attachment.
(C) Hand Tucked Splice Attachment.

Table G-6 Alloy Steel Chain (In Tons of 2,000 Pounds)				
Nominal Size Chain Stock Inch	**Single Leg** 	**60 Degree**	**45 Degree**	**30 Degree** 
1/4	1.62	2.82	2.27	1.62
3/8	3.30	5.70	4.65	3.30
1/2	5.62	9.75	7.90	5.62
5/8	8.25	14.25	11.65	8.25
3/4	11.5	19.9	16.2	11.5
7/8	14.3	24.9	20.3	14.3
1	19.3	33.5	27.3	19.8
1 1/8	22.2	38.5	31.5	22.2
1 1/4	28.7	49.7	40.5	28.7
1 3/8	33.5	58.0	47.0	33.5
1 1/2	39.7	68.5	56.0	39.7
1 5/8	42.5	73.5	59.5	42.5
1 3/4	47.0	81.5	62.0	47.0

(11) You must meet the following requirements for hooks other than hand hooks:

(a) The manufacturer's recommendations must be followed in determining the safe working loads of the various sizes and types of specific and identifiable hooks. All hooks for which no applicable manufacturer's recommendations are available must be tested to twice the intended safe working load before they are initially put into use. You must maintain a record of the dates and results of such tests.

(b) Loads must be applied to the throat of the hook since loading the point may overstress, bend, or spring the hook.

(c) Hooks must be inspected once a month to see that they have not been bent by overloading. Bent or sprung hooks must not be used.

(d) For crane hooks, magnetic particle or other suitable crack detecting inspection must be performed at least once each year. When testing by X ray, the pertinent provisions of the Nuclear Regulatory Commission's standards for protection against radiation, relating to protection against occupational radiation exposure, must apply.

(e) Any activity which involves the use of radioactive materials or X rays, whether or not under license from the Nuclear Regulatory Commission, must be performed by competent persons specially trained in the proper and safe operation of such equipment. In the case of materials used under commission license, only persons actually licensed, or competent persons under direction and supervision of the licensee, must perform such work.

(f) Teeth of case hooks must not be split, cracked, or deformed.

(g) Jaws of patent clamp type plate hooks must be kept in safe condition so that they will grip plates securely.

(12) You must meet the following requirements for pallets:

(a) Pallets must be made and maintained to safely support and carry loads being handled. Fastenings of reusable pallets used for hoisting must be bolts and nuts, drive screws (helically threaded nails), annular threaded nails or fastenings of equivalent holding strength.

(b) Damaged pallets must be stored in designated areas and identified.

(c) Reusable wing or lip-type pallets must be hoisted by bar bridles or other suitable gear and must have an overhanging wing or lip of at least three inches (7.62 cm). They must not be hoisted by wire slings alone.

(d) Loaded pallets that do not meet the requirements of this subsection (12) (d) must be hoisted only after being placed on pallets meeting such requirements or must be handled by other means providing equivalent protection.

(e) Bridles for handling flush end or box-type pallets must be designed to prevent disengagement from the pallet under load.

(f) Pallets must be stacked or placed to prevent falling, collapsing or otherwise causing a hazard under standard operating conditions.

(g) Disposable pallets intended only for one use must not be re-used for hoisting.

WAC 296-56-60075 Cargo boards and other type pallet boards.

(1) You must make sure all pallets and cargo boards are of such material and construction as to safely support and carry loads being handled.

(2) You must make sure all cargo boards are sheathed (decked) top and bottom with the top sheathing being of two-inch lumber and extending at least six inches beyond the end stringers.

(3) You must fasten the outer sheathing boards or boards adjacent thereto on cargo boards to the stringers by bolts and nuts. Other sheathing must be fastened by bolts and nuts, drive screws (helically threaded nails), annular threaded nails, or fastenings of equivalent strength.

(4) You may hoist pallet boards, other than cargo boards, if safe means are provided for the type of board used.

(5) You must make sure loaded cargo or pallet boards which do not meet the requirements of this section are boarded or placed on cargo boards meeting the requirements of this section before being hoisted, only if the weight of the load can be safely distributed on the cargo board.

(6) You must prohibit cargo boards from being hoisted which are not loaded and secured so that the load will not tip or fall.

(7) You must make sure bridles used to handle flush-end or box-type pallets are designed to prevent them from becoming disengaged from the pallet under load.

> **Note**: In areas where a two lip cargo board is being used, that practice shall continue. The department of labor and industries recommends the use of the two lip cargo board.

WAC 296-56-60077 Powered industrial trucks.

(1) This section applies to every type of powered industrial truck used for material or equipment handling within a marine terminal. You must comply with the provisions of chapter 296-863WAC and this section. It does not apply to over-the-road vehicles.

(2) You must meet the following general requirements for powered industrial trucks:

(a) Modifications, such as adding counterweights, that might affect the vehicle's capacity or safety must not be performed without either the manufacturer's prior written approval or the written approval of a professional engineer experienced with the equipment who has consulted with the manufacturer, if available. Capacity, operation and maintenance instruction plates, tags or decals must be changed to conform to the equipment as modified.

(b) Unauthorized personnel must not ride on powered industrial trucks. A safe place to ride must be provided when riding is authorized.

(c) When a powered industrial truck is left unattended, load-engaging means must be fully lowered, controls neutralized and brakes set. Unless the truck is in view and within twenty-five feet (7.62 m) of the operator, power must be shut off. Wheels must be blocked or curbed if the truck is on an incline.

(d) Powered industrial trucks must not be operated inside highway vehicles or railcars having damage which could affect operational safety.

(e) Powered industrial trucks must be marked with their rated capacities, which must be visible to the operator.

(f) Only stable and safely arranged loads within the rated capacity of the truck must be handled.

(g) Drivers must ascend and descend grades slowly.

(h) Drivers must slow down and sound the horn at crossaisles and other locations where visibility is obstructed.

(i) If the load obstructs the forward view drivers must travel with the load trailing.

(j) Steering knobs must not be used unless the truck is equipped with power steering.

(k) When powered industrial trucks use cargo lifting devices that have a means of engagement hidden from the operator, a means must be provided to enable the operator to determine that the cargo has been engaged.

(l) When cargo is being towed on pipe trucks or similar equipment, a safe means must be provided to protect the driver from sliding loads.

(3) You must meet the following requirements for maintenance:

(a) Only designated persons must perform maintenance and repair.

(b) Batteries on all powered trucks must be disconnected during repairs to the primary electrical system unless power is necessary for testing and repair. On trucks equipped with systems capable of storing residual energy, that energy must be safely discharged before work on the primary electrical system begins.

(c) Replacement parts whose function might affect operational safety must be equivalent in strength and performance capability to the original parts which they replace.

(d) Braking systems or other mechanisms used for braking must be operable and in safe condition.

(e) Powered industrial trucks must be maintained in safe working order. Safety devices must not be removed or made inoperative except as otherwise provided in this section. Trucks with a fuel system leak or any other safety defect must not be operated.

(f) Those repairs to the fuel and ignition systems of industrial trucks which involve fire hazards must be conducted only in locations designated as safe for such repairs.

(4) You must meet the following requirements for approved trucks:

(a) Approved trucks acquired and used after February 15, 1972, must bear a label or other identification indicating testing laboratory approval.

(b) When the atmosphere in an area is hazardous and the provisions of United States Coast Guard regulations at 33 CFR 126.15(e) do not apply, only power-operated industrial trucks approved for such locations must be used.

(5) You must meet these requirements for operator duties:

(a) A power-driven vehicle operator's special duties are:

(i) To operate the vehicle in a safe manner.

(ii) To test brakes, steering gear, lights, horns, or other warning devices, clutches, etc., before starting work.

(iii) To have the vehicle at all times under control so that it can be brought to an emergency stop in the clear space in front of the vehicle.

(iv) To back down any incline of two percent or more when traveling with a load on the fork lift jitney.

(b) When traveling, power-propelled vehicles must at all times be operated in a manner giving the operator a reasonably unobstructed view in the direction of travel. Where this is impractical, the operator must be directed in travel, by a person designated to do so.

(c) Operators and authorized passengers are not to be permitted to ride with legs or arms extending outside any vehicle nor are they permitted to ride while standing unless the vehicle is designed to be operated from a standing position.

(d) Vehicles must be controlled manually while being pushed or towed except when a tow bar is used. Special precautions must be taken when pushing vehicles where the view is obstructed. Vehicles must not be pushed with blades of a forklift.

(e) In all cargo operations involving the use of highway trailers, trailers must be moved in such a manner that the moving trailer is completely under control at all times. Special caution must be exercised when such trailers are moving on inclines. Trailers must be loaded in a manner, which will prevent the cargo from shifting, and the load in the trailer must be evenly distributed to prevent the trailer from tipping to one side.

(f) Riding on tongue or handles of trailers or forks of power-propelled vehicles is prohibited.

(g) No one except the operator shall ride on power-driven vehicles unless regular seats are provided to accommodate passengers.

(h) Employees must not jump on or off moving vehicles.

(i) If a power-driven vehicle is at any time found to be in any way unsafe, the operator must report the defect immediately to the person in charge and such vehicle must not be used for production work until it has been made safe.

(6) You must meet the following requirements for vehicle equipment and maintenance:

(a) All power-propelled vehicles must be provided with horns or other warning devices.

(b) Power-propelled vehicles used for night work, when required to travel away from an illuminated work area must be equipped with a light or lights directed in the direction of travel in order to safely travel about the area.

(c) Every power truck operated from an end platform or standing position must be equipped with a substantial guard securely attached to the platform or frame of the vehicle in such a manner as to protect the operator from falling objects and so designed that the operator can easily mount or dismount from the operating station.

(d) All vehicles having a driver's seat must be provided with resilient seat cushions fixed in place.

(e) Counterbalances of all power-driven vehicles must be positively secured to prevent accidental dislodging, but may be a removable type, which may be removed, if desired, prior to hoisting the vehicle.

(f) Exhaust pipes and mufflers of internal combustion engines, where workers are exposed to contact must be isolated or insulated. Exhaust pipe must be constructed to discharge not less than seventy-two inches above the floor on jitneys and eighty-four inches on forklifts or less than twenty inches from the floor.

(g) Internal combustion engines may be used only in areas where adequate ventilation is provided.

(h) Concentration levels of carbon monoxide gas created by powered industrial truck operations must not exceed the levels specified in WAC 296-56-60055.

(i) When disputes arise concerning degree of concentration, methods of sampling to ascertain the conditions should be referred to a qualified industrial hygienist.

(j) Couplings installed on cargo trucks (four-wheelers) must be of a type, which will prevent accidental disengaging.

(k) Operating levers on power-driven vehicles must be so placed as not to project toward the operator's body.

(l) The front axle assembly on all trailers must be securely fastened to the truck bed.

(m) Tractors hauling heavy duty highway trailers must have an airline brake hook-up.

(n) On power-driven vehicles where the operator stands on a platform, resilient foot mats must be securely attached.

(o) Cleaning vehicles. All power-propelled vehicles must be cleaned at frequent intervals to remove any accumulation of dust and grease that may present a hazard.

(7) You must meet the following requirements for forklift trucks:

(a) Overhead guards.

(i) When operators are exposed to overhead falling hazards, forklift trucks must be equipped with securely attached overhead guards. Guards must be constructed to protect the operator from falling boxes, cartons, packages, or similar objects.

(ii) Overhead guards must not obstruct the operator's view, and openings in the top of the guard must not exceed six inches (15.24 cm) in one of the two directions, width or length. Larger openings are permitted if no opening allows the smallest unit of cargo being handled to fall through the guard.

(iii) Overhead guards must be built so that failure of the vehicle's mast tilting mechanism will not displace the guard.

(iv) An overhead guard, otherwise required by this paragraph, may be removed only when it would prevent a truck from entering a work space and if the operator is not exposed to low overhead obstructions in the work space.

(v) Overhead guards must be large enough to extend over the operator during all truck operations, including forward tilt.

(b) Cargo or supplies must not be hoisted to or from ship's rail with a forklift. This does not apply to ramp or side port loading.

(c) When standing, lift forklift forks must be lowered to floor. When moving, lift forklift forks must be kept as low as possible.

(d) Not less than two forklifts must be used to place or remove gangplanks unless fork width prevents tipping and manufacturer's rated lifting capacity of the forklift is not exceeded.

(e) Seats on forklifts must be provided with a removable waterproof cover when they are exposed to the weather.

(f) Workers must not work below the raised bed of a dump truck, raised buckets of front end loaders, raised blades of tractors or in similar positions without blocking the equipment in a manner that will prevent it from falling. When working under equipment suspended by use of jacks, safety stands or blocking must be used in conjunction with the jack.

(g) The maximum speed for forklifts on all docks must not exceed eight miles per hour. The speed limit must be prominently posted on such docks.

(h) Where necessary to protect the operator, forklift trucks must be fitted with a vertical load backrest extension to prevent the load from hitting the mast when the mast is positioned at maximum backward tilt. For this purpose, a “load backrest extension” means a device extending vertically from the fork carriage frame to prevent raised loads from falling backward.

(i) Forks, fork extensions and other attachments must be secured so that they cannot be accidentally dislodged, and must be used only in accordance with the manufacturer's recommendations.

(j) Counterweights must be so affixed that they cannot be accidentally dislodged.

(k) Capacities and weights:

(i) Forklift truck rated capacities, with and without removable counterweights, must not be exceeded. Rated capacities must be marked on the vehicle and be visible to the operator. The vehicle weight, with and without counterweight, must be similarly marked.

(ii) If loads are lifted by two or more trucks working in unison, the total weight of the load must not exceed the combined rated lifting capacity of all trucks involved.

(l) Employees may be elevated by forklift trucks only when a platform is secured to the lifting carriage or forks. The platform must meet the following requirements:

(i) The platform must have a railing complying with WAC 296-56-60123(3).

(ii) The platform must have toeboards complying with WAC 296-56-60123(4), if tools or other objects could fall on employees below.

(iii) When the truck has controls, which are elevated with the lifting carriage, means must be provided for employees on the platform to shut off power to the vehicle.

(iv) Employees on the platform must be protected from exposure to moving truck parts.

(v) The platform floor must be skid resistant.

(vi) A truck operator must be at the truck's controls when employees are elevated unless the truck's controls are elevated with the lifting carriage.

(vii) While employees are elevated, the truck may be moved only to make minor placement adjustments.

(8) You must meet the following requirements for bulk cargo-moving vehicles:

(a) Where a seated operator may come into contact with projecting overhead members, crawler-type bulk-cargo-moving vehicles that are rider operated must be equipped with operator guards.

(b) Guards and their attachment points must be so designed as to be able to withstand, without excessive deflection, a load applied horizontally at the operator's shoulder level equal to the drawbar pull of the machine.

(c) After July 26, 1999, bulk cargo-moving vehicles must be equipped with rollover protection of such design and construction as to prevent the possibility of the operator being crushed because of a rollover or upset.

(9) You must meet the following requirements for straddle trucks:

(a) Straddle trucks must have a permanent means of access to the operator's station, including any handholds necessary for safe ascent and descent.

(b) Guarding:

(i) Main sprockets and chains to the wheels musts be guarded as follows:

(A) The upper sprocket must be fully enclosed;

(B) The upper half of the lower sprocket must be enclosed; and

(C) The drive chain must be enclosed to a height of eight feet (2.44 m) except for that portion at the lower half of the lower sprocket.

(ii) Gears must be fully enclosed and revolving parts which may be contacted by the operator must be guarded.

(iii) When straddle trucks are used in the vicinity of employees, personnel-deflecting guards must be provided around leading edges of front and rear wheels.

(c) Operator visibility must be provided in all directions of movement.

(10) You must meet the following requirements for trailer-spotting tractors:

(a) Trailer-spotting tractors (fifth wheels) must be fitted with any hand grabs and footing necessary for safe access to the fifth wheel.

(b) Rear cab windows must be of safety glass or equivalent material.

WAC 296-56-60079 General rules applicable to vehicles.

(1) The requirements of this section apply to general vehicle use within marine terminals except in cases where the provisions of subsections (3) and (13) of this section are preempted by regulations of the department of transportation.

(2) You must allow private vehicle parking in marine terminals only in designated areas.

(3) You must not disconnect trailers from tractors at loading docks until the road wheels have been immobilized. The road wheels must be immobilized from the time the brake system is disconnected until braking is again provided. Supplementary front end support must be employed as necessary to prevent tipping when a trailer is entered by a material handling vehicle. Rear end support must be employed if rear wheels are so far forward as to allow tipping when the trailer is entered.

(4) You must direct motor vehicle operators to comply with any posted speed limits, other traffic control signs or signals, and written traffic instructions.

(5) You must post stop signs at main entrances and exits of structures where visibility is impaired, and at blind intersections, unless direct traffic control, warning mirror systems or other systems of equivalent safety are provided.

(6) You must establish, identify, and use vehicular routes, traffic rules and parking areas.

(7) You must make sure vehicle drivers warn anyone in traffic lanes of the vehicle's approach.

(8) You must clearly post signs indicating pedestrian traffic at vehicular check-in and checkout lines and similar locations where employees may be working.

(9) You must maintain a distance of not less than twenty feet (6.1 m) between the first two vehicles in a check-in, check-out, road ability, or vessel loading/discharging line. This distance must be maintained between any subsequent vehicles behind which employees are required to work.

(10) You must make sure no unattended vehicle shall be left with its engine running unless secured against movement (see WAC 296-56-60077 for powered industrial trucks).

(11) You must provide and secure a ramp when the rear of a vehicle is elevated to facilitate loading or discharging The vehicle must be secured against accidental movement during loading or discharging.

(12) You must make sure only vehicle floors in safe condition are be used.

(13) You must make sure when flatbed trucks, platform containers or similar conveyances are loaded or discharged and the cargo consists of pipe or other products, which could spread or roll to endanger employees, the cargo is contained to prevent movement.

(14) You must maintain vehicles used to transport employees within a terminal in safe working order and safety devices not be removed or made inoperable.

WAC 296-56-60081 Multipiece and single-piece rim wheels.

You must make sure servicing of multipiece and single-piece rim wheels in marine terminal and other maritime work locations on large vehicles is regulated by requirements of chapter 296-864 WAC, Split (multipiece) and single-piece rim wheels.

WAC 296-56-60083 Cranes and derricks.

(1) Scope.

(a) This section through WAC 296-56-60103 applies to every kind of crane and derrick and to any other type of equipment performing the functions of a crane or derrick except as noted in (b) of this subsection.

(b) This section does not apply to small industrial truck-type cranes, container handling toploaders and sideloaders, chain hoists, and mobile straddle-type cranes incapable of straddling two or more intermodal containers (sixteen feet (4.88 m) in width).

(2) You must met the following requirements for ratings:

(a) Except for bridge cranes covered by subsection (7) of this section, cranes and derricks having ratings that vary with boom length, radius (outreach) or other variables must have a durable rating chart visible to the operator, covering the complete range of the manufacturer's (or design) capacity ratings. The rating chart must include all operating radii (outreach) for all permissible boom lengths and jib lengths as applicable, with and without outriggers, and alternate ratings for optional equipment affecting such ratings. Precautions or warnings specified by the owner or manufacturer must be included.

(b) The manufacturer's (or design) rated loads for the conditions of use must not be exceeded.

(c) Designated working loads must not be increased beyond the manufacturer's ratings or original design limitations unless such increase receives the manufacturer's approval. When the manufacturer's services are not available or where the equipment is of foreign manufacture, engineering design analysis must be performed or approved by a person accredited for certifying the equipment under WAC 296-56-60093. Cranes must conform with the manufacturer's specifications or any current ANSI standards that apply. Engineering design analysis must be performed by a registered professional engineer competent in the field of cranes and derricks. Any structural changes necessitated by the change in rating must be carried out.

(3) You must make sure when the rated load varies with the boom radius, the crane or derrick is fitted with a boom angle or radius indicator visible to the operator.

(4) You must prohibit the following usage:

(a) Equipment must not be used in a manner that exerts sideloading stresses upon the crane or derrick boom.

(b) No crane or derrick having a visible or known defect that affects safe operation must be used.

(5) You must meet the following requirements for protective devices:

(a) When exposed moving parts such as gears, chains and chain sprockets present a hazard to employees during crane and derrick operations, those parts must be securely guarded.

(b) Crane hooks must be latched or otherwise secured to prevent accidental load disengagement.

(c) When hoisting personnel in an approved man basket, the hook must have a positive safety latch to prevent rollouts.

(6) You must meet the following general requirements:

(a) Operating controls:

(i) Crane and derrick operating controls must be clearly marked, or a chart indicating their function must be posted at the operator's position.

(ii) All crane controls must operate in a uniform manner within a given port.

(iii) Overhead bridge and container gantry crane operating control levers must be self-centering so that they will automatically move to the “off” position when the operator releases the control.

(b) Cranes with elevatable booms and without operable automatic limiting devices must be provided with boom stops if boom elevation can exceed maximum design angles from the horizontal.

(c) Foot pedals must have a nonskid surface.

(d) Ladders, stairways, stanchions, grab irons, footsteps or equivalent means must be provided as necessary to ensure safe access to footwalks, cab platforms, the cab and any portion of the superstructure which employees must reach.

(i) Footwalks must be of rigid construction and capable of supporting a load of one hundred pounds (4.79 kPa) per square foot.

(ii) If more than twenty feet (6.1 m) in height, vertical ladders must comply with WAC 296-56-60209 (4), (5)(a), (5)(b)(iii) and (5)(b)(iv).

(iii) Stairways on cranes must be equipped with rigid handrails meeting the requirements of WAC 296-56-60123 (5)(a).

(iv) If the top of a ladder or stairway or any position thereof is located where a moving part of a crane, such as a revolving house, could strike an employee ascending or descending the ladder or stairway, a prominent warning sign must be posted at the foot of the ladder or stairway. A system of communication (such as a buzzer or bell) must be established and maintained between the foot of the ladder or stairway and the operator's cab.

(e) The cab, controls, and mechanism of the equipment must be so arranged that the operator has a clear view of the load or signal person, when one is used. Cab glass, when used, must be safety plate glass or equivalent and good visibility must be maintained through the glass. Clothing, tools and equipment must be stored so as not to interfere with access, operation, or the operator's view.

(f) A seat (lap) belt, meeting the requirements of 49 C.F.R. 571.208-210 for a Type 1 seat belt assembly, must be installed on the operator’s seat of high speed container gantry cranes where the seat trolleys.

(g) Cranes must be operated only with the specified type and amount of ballast or counterweights. Ballast or counterweight must be located and secured only as provided in the manufacturer's or design specifications, which must be available.

(h) Outriggers must be used according to the manufacturer's specifications or design data, which must be available. Floats, when used, must be securely attached to the outriggers. Wood blocks or other support must be of sufficient size to support the outrigger, free of defects that may affect safety and of sufficient width and length to prevent the crane from shifting or toppling under load.

(i) Engine exhaust gases must be discharged away from the normal position of crane operating personnel.

(j) Electrical equipment must be so located or enclosed that live parts will not be exposed to accidental contact. Designated persons may work on energized equipment only if necessary during inspection, maintenance, or repair.

(k) Fire extinguisher:

(i) At least one portable fire extinguisher of at least 5-BC rating or equivalent must be accessible in the cab of the crane or derrick.

(ii) No portable fire extinguisher using carbon tetrachloride or chlorobromomethane extinguishing agents must be used.

Note: For additional requirements relating to portable fire extinguishers see WAC 296-800-300.

(l) At least three full turns of rope must remain on ungrooved drums, and two turns on grooved drums, under all operating conditions. Wire rope must be secured to drums by clamps, U-bolts, shackles, or equivalent means. Fiber rope fastenings are prohibited.

(m) Mobile crane booms being assembled or disassembled on the ground with or without the support of the boom harness must be blocked to prevent dropping of the boom or boom sections.

(n) Brakes:

(i) Each independent hoisting unit of a crane must be equipped with at least one holding brake, applied directly to the motor shaft or gear train.

(ii) Each independent hoisting unit of a crane, except worm geared hoists, the angle of whose worm is such as to prevent the load from accelerating in the lowering direction, must, in addition to a holding brake, be equipped with a controlled braking means to control lowering speeds.

(iii) Holding brakes for hoist units must have not less than the following percentage of the rated load hoisting torque at the point where the brake is applied:

(A) One hundred twenty-five percent when used with a controlled braking means.

(B) One hundred percent when used with a mechanically-controlled braking means.

(C) One hundred percent when two holding brakes are provided.

(iv) All power control braking means must be capable of maintaining safe lowering speeds of rated loads.

(o) Each crane or derrick must be equipped with sufficient lights to maintain five foot candles in the working area around the load hook. All crane ladders and machinery houses must be illuminated at a minimum of two candle power.

(p) Light fixtures connected to the boom, gantry legs, or machinery house must be provided with safety devices which will prevent the light fixture from falling in case of bracket failure.

(q) Electronic devices may be installed to prevent collision subject to approval of the accredited certification agency.

(r) On all rail gantry cranes, truck guards must extend on the ends of the trucks, close to the top of the rail to prevent worker's feet from being caught between the rail and wheel. This subsection does not apply if rail sweeps are present.

(s) All hydraulic cylinders used to control crane booms or to provide crane stability (outriggers) must be equipped with a pilot operated check valve or a device which will prevent the boom or outrigger from retracting in case of failure of a component of the hydraulic system.

(t) Gantry cranes must be provided with automatic rail clamps or other devices to prevent the crane from moving when not being used or when power is off.

(7) You must meet the requirements for rail-mounted cranes (excluding locomotive types):

(a) For the purposes of this section, rail-mounted cranes include bridge cranes and portal cranes.

(b) The rated loads of bridge must be plainly marked on each side of the crane and in the cab. If there is more than one hoisting unit, each hoist must have its rated load marked on it or on its load block. Marking must be legible from the ground level.

(c) Wind-indicating devices:

(i) Each rail-mounted bridge and portal crane located outside of an enclosed structure must be fitted with an operable wind-indicating device.

(ii) The wind indicating device must provide a visible or audible warning to alert the operator of high wind conditions. That warning must be transmitted whenever the following circumstances are present:

(A) When wind velocity reaches the warning speed, not exceeding the crane manufacturer's recommendations; and

(B) When wind velocity reaches the shutdown speed, not exceeding the crane manufacturer's recommendations, at which work is to be stopped and the crane secured.

(iii) You must post operating instructions for high wind conditions in the operator's cab of each crane. Operators must be directed to comply with these instructions. The instructions must include procedures for responding to high wind alerts and for any coordination necessary with other cranes.

(d) Securing of cranes in high winds.

(i) When the wind reaches the crane's warning speed:

(A) Gantry travel must be stopped; and

(B) The crane must be readied for shutdown.

(ii) When the wind reaches the crane's shutdown speed:

(A) Any portion of the crane spanning or partially spanning a vessel must be moved clear of the vessel if safe to do so; and

(B) The crane must be secured against travel, using all available means of securing.

(e) You must monitor local weather conditions by subscribing to a weather service or using equally effective means.

(f) The following applies for stops and bumpers:

(i) The ends of all tracks must be equipped with stops or bumpers. If a stop engages the tread of the wheel, it must be of a height not less than the radius of the wheel.

(ii) When more than one crane operates on the same runway or more than one trolley on the same bridge, each crane or trolley must be equipped with bumpers or equivalent devices at adjacent ends subject to impact.

(g) Employee exposure to crane movement. When employees may be in the vicinity of the tracks, crane trucks must be equipped with personnel-deflecting guards.

(h) If the track area is used for employee passage or for work, a minimum clearance of three feet (0.91 m) must be provided between trucks or the structures of rail-mounted cranes and any other structure or obstruction. When the required clearance is not available on at least one side of the crane's trucks, the area must not be used and must be marked and identified.

(i) Rail-mounted cranes must be equipped with an effective audible and visible travel warning device which must be used to warn employees who may be in the path of the moving crane.

(j) The following are requirements for communications:

(i) Means of communication must be provided between the operator's cab and the base of the gantry of all rail-mounted cranes. This requirement may be met by telephone, radio, sound-signaling system or other effective methods, but not solely by hand-signaling.

(ii) All rail-mounted cranes thirty ton and above capacity must be equipped with a voice hailing device (PA system) from the operator to the ground, audible within one hundred feet.

(k) Limit switch bypass systems must be secured during all cargo operations. Such bypass systems must not be used except in an emergency or during noncargo handling operations such as stowing cranes or derricks or performing repairs. When a situation requiring the use of a bypass system or the readjustment of a limit switch arises, it must be done only under the direction of a crane mechanic.

(l) Cranes and crane operations--Scope and application. The sections of this chapter, WAC 296-56-60083 through 296-56-60099, apply to cranes, derricks, and crane operations.

(m) A signal person must be required when a crane operator's visibility is obstructed. When a signal person is required to transmit hand signals, they must be in such a position that the operator can plainly see the signals.

(n) All operators and signal persons must use standard signals as illustrated for longshore crane operations. (See Appendices C and D, at the end of this chapter.)

(o) Where power units, such as cranes and winches are utilized and signaling is required, the operator must be instructed as to whom is authorized to give signals. The operator must take signals only from such authorized person. In case of emergency, any worker must be authorized to give a stop signal.

(i) No draft must be hoisted unless the winch or crane operator can clearly see the draft itself or see the signals of any signal person associated with the operation.

(ii) Loads requiring continuous manual guidance while in motion must be provided with tag lines.

(p) Persons assisting in landing a load must face the load and use caution to prevent themselves from getting in a position where they may be caught between the load and a fixed object.

(8) You may hoist loads locomotive cranes only if outriggers are in place, unless means are taken to prevent the load being carried by the truck springs of the crane.

(9) You must meet the following requirements for operations:

(a) When two or more cranes hoist a load in unison, a designated person must direct the operation and instruct personnel in positioning, rigging of the load and movements to be made.

(b) Accessible areas within the swing radius of the body of a revolving crane must be physically guarded during operations to prevent an employee from being caught between the body of the crane and any fixed structure or between parts of the crane.

(c) The crane's superstructure and boom must be secured against rotation and carried in line with the direction of travel except when negotiating turns with an operator in the cab or when the boom is supported on a dolly. The empty hook or other attachment must be secured.

(d) The following steps must be taken before leaving a crane unattended between work periods:

(i) Suspended loads, such as those hoisted by lifting magnets or clamshell buckets, must be landed unless the storage position or maximum hoisting of the suspended device will provide equivalent safety;

(ii) Clutches must be disengaged;

(iii) The power supply must be shut off;

(iv) The crane must be secured against accidental travel; and

(v) The boom must be lowered or secured against movement.

(e) Operating near electric power lines:

(i) Unless electrical distribution and transmission lines are deenergized and visibly grounded at point of work, or unless insulating barriers not a part of or an attachment to the crane have been erected to prevent physical contact with lines, cranes may be operated near power lines only in accordance with the following:

(A) For lines rated 50 kV or below, minimum clearance between the lines and any part of the crane or load must be ten feet (3.05 m);

(B) For lines rated over 50 kV, minimum clearance between the lines and any part of the crane or load must be either 10 feet (3.05 m) plus 0.4 inch (10.16 mm) for each 1 kV over 50 kV, or twice the length of the line insulator, but never less than ten feet; and

(C) In transit with no load and boom lowered, the clearance must be a minimum of four feet (1.22 m).

(ii) Cage-type boom guards, insulating links or proximity warning devices may be used on cranes, but they must not be used in place of the clearances required by subsection (9)(e)(i) of this section.

(iii) Any overhead line must be presumed to be energized until the owner of the line indicates that it is not energized.

(10) You must meet the following requirements for protection for employees being hoisted:

(a) You must make sure no employee is hoisted by the load hoisting apparatus of a crane or derrick except:

(i) On intermodal container spreaders, equipped in accordance with this subsection; or

(ii) In a boatswain's chair or other device rigged to prevent it from accidental disengagement from the hook or supporting member; or

(iii) On a platform meeting the following requirements:

(A) Enclosed by a railing or other means providing protection equivalent to that described in WAC 296-56-60123(3). If equipped with open railings, the platform must be fitted with toe boards;

(B) Having a safety factor of four based on ultimate strength;

(C) Bearing a plate or permanent marking indicating maximum load rating, which must not be exceeded, and the weight of the platform itself;

(D) Equipped with a device to prevent access doors, when used, from opening accidentally;

(E) Equipped with overhead protection for employees on the platform if they are exposed to falling objects or overhead hazards;

(F) Secured to the load line by means other than wedge and socket attachments, unless the free (bitter) end of the line is secured back to itself by a clamp placed as close above the wedge as possible.

(b) Except in an emergency, the hoisting mechanism of all overhead and container gantry cranes used to hoist personnel must operate in power up and power down, with automatic brake application when not hoisting or lowering.

(c) Variable radius booms of a crane or derrick used to hoist personnel must be so constructed or secured as to prevent accidental boom movement.

(d) Platforms or devices used to hoist employees must be inspected for defects before each day's use and must be removed from service if defective.

(e) Employees being hoisted must remain in continuous sight of and communication with the operator or signal person.

(f) Operators must remain at the controls when employees are hoisted.

(g) Cranes must not travel while employees are hoisted, except in emergency or in normal tier to tier transfer of employees during container operations.

(h) When intermodal container spreaders are used to transfer employees to or from the tops of containers, the spreaders must be equipped with a personnel platform equipped with fixed railings, provided that the railings have one or more openings for access. The openings must be fitted with a means of closure, such as chains with hooks. Existing railings must be at least thirty-six inches (0.91 m) in height. New railings installed after October 3, 1983 must be forty-two inches (1.07 m), plus or minus three inches (7.62 cm), in height. The provisions of (a)(iii)(C), (D), and (F) of this subsection also apply to personnel platforms when container spreaders are used.

(i) Positive safety latch-type hooks or moused hooks must be used.

(j) Employees must not be hoisted on intermodal container spreaders while a load is engaged.

(11) You must meet the following requirements for routine inspections:

(a) Designated persons must visually inspect each crane and derrick on each day of use for defects in functional operating components and must report any defect found to the employer. You must inform the operator of the findings.

(b) A designated person must thoroughly inspect all functional components and accessible structural features of each crane or device at monthly intervals.

(c) Any defects found during such inspections which may create a safety hazard must be corrected before further use. Repairs must be performed only by designated persons.

(d) A record of monthly inspections must be maintained for six months in or on the crane or derrick or at the terminal.

WAC 296-56-60085 Crane load and limit devices.

(1) You must fit every crane with a load indicating device or alternative device in proper working condition, except as provided in subsection (8) of this section. The type or model or any load indicating or alternate device which is used must provide:

(a) A direct indication in the cab of actual weight hoisted or a means of determining this by referencing a weight indication to crane ratings posted and visible to the operator. The use of a dynamometer or simple scale alone must not meet this requirement; or

(b) Indications in the cab according to the radius and load at the moment; or

(c) A direct means to prevent an overload from occurring.

(2) You must make sure the accuracy of the devices required by this section must be such that any indicated load (or limit), including the sum of actual weight hoisted and additional equipment or “add ons” such as slings, sensors, blocks, etc., is within the range from no less than ninety-five percent of the actual true total load (five percent overload) to one hundred ten percent of the actual true total load (ten percent underload). Such accuracy must be required over the range of the daily operating variables to be expected under the conditions of use.

(3) You must make sure the device permits the operator to determine, before making any lift, that the indicating or substitute system is operative. In the alternative, if a device is so mounted or attached to preclude such a determination, it may not be used unless it has been certified by the manufacturer to remain operable within the limits stated in subsection (2) of this section for a specific period of use. Checks for accuracy, using known values of load, must be performed at the time of every certification survey (see WAC 296-56-60093) and at such additional times as may be recommended by the manufacturer.

(4) You must make sure when a load indicating device or alternative system is so arranged in the supporting system (crane structure) that its failure could cause the load to be dropped, its strength must not be the limiting factor of the supporting system (crane structure).

(5) You must make sure marking is conspicuously placed giving: Units of measure in pounds or both pounds and kilograms, capacity of the indicating system, accuracy of the indicating system, and operating instructions and precautions. In the case of systems utilizing indications other than actual weights, the marking must include data on: The means of measurement, capacity of the system, accuracy of the system, operating instructions and precautions. If the system used provides no read-out, but it is such as to automatically cease crane operation when the rated load limit under any specific condition of use is reached, marking must be provided giving the make and model of the device installed, a description of what it does, how it is operated, and any necessary precautions regarding the system. All weight indications, other types of loading indications, and other data required must be readily visible to the operator.

(6) You must make sure all load-indicating devices are operative over the full operating radius. Overall accuracy must be based on actual applied load and not on full-scale (full capacity) load.

> **Explanatory Note**: For example, if accuracy of the load indicating device is based on full scale load and the device is arbitrarily set at plus or minus ten percent, it would accept a reading between ninety thousand and one hundred ten thousand pounds, at full capacity of a machine with one hundred thousand pounds, maximum rating, but would also allow a reading between zero and twenty thousand pounds, at that outreach (radius) at which the rating would be ten thousand pounds capacity--an unacceptable figure. If, however, accuracy is based on actual applied load under the same conditions, the acceptable range would remain the same with the one hundred thousand pound load but becomes a figure between nine thousand and eleven thousand pounds, a much different and acceptable condition, at the ten thousand pound load.

(7) You must make sure when the device uses the radius as a factor in its use or in its operating indications, the indicated radius (which may be in feet and/or meters, or degrees of boom angle, depending on the system used) is a figure which is within the range of a figure no greater than one hundred ten percent of the actual radius to a figure which is no less than ninety-seven percent of the actual (true) radius. A conversion chart must be provided whenever it is necessary to convert between degrees of radius and feet or meters.

(8) The load indicating device requirements of this section do not apply to a crane:

(a) Of trolley equipped bridge type while handling container known to be and identified as empty, or loaded, and in either case in compliance with the provisions of WAC 296-56-60103, or while hoisting other lifts by means of a lifting beam supplied by the crane manufacturer for the purpose, and in all cases within the crane rating;

(b) While handling bulk commodities or cargoes by means of clamshell bucket or magnet;

(c) While used to handle or hold hoses in connection with transfer of bulk liquids or other hose handled products; or

(d) While the crane is used exclusively to handle cargo or equipment the total actual gross weight of which is known by means of marking of the unit or units hoisted, when such total actual gross weight never exceeds eleven thousand two hundred pounds, and when eleven thousand two hundred pounds, is less than the rated capacity of the crane at the maximum outreach that is possible under the conditions of use at the time.

(9) You must install limit switches on the main line and whip line assemblies, of all cranes and derricks, which will deactivate the hoisting power when a load reaches the upper limits of travel and at such other places as required by this chapter. Line limit switches must be tested prior to or at the beginning of each shift to determine if they are functioning properly. Any malfunction must be reported to the person in charge immediately and must be repaired prior to use.

WAC 296-56-60087 Winches.

(1) You must guard moving winch parts which present hazards to employees.

(2) You must make sure winches have clearly identifiable and readily accessible stop controls.

(3) You must secure portable winches against accidental shifting while in use.

(4) You must fit portable winches with limit switches if employees have access to areas from which it is possible to be drawn into the winch.

(5) The provisions of WAC 296-56-60083 (6)(1) apply to winches.

WAC 296-56-60089 Conveyors.

(1) You must meet the following requirements for guards:

(a) Danger zones at or adjacent to conveyors must be guarded to protect employees.

(b) An elevated walkway with guardrail or equivalent means of protection must be provided where employees cross over moving conveyors. Suitable guarding must be provided when employees pass under moving conveyors.

(2) You must secure conveyor rollers and wheels in position.

(3) You must firmly place and secure gravity conveyor sections to prevent them from falling.

(4) You must meet the following requirements for braking:

(a) When necessary for safe operation, provisions must be made for braking objects at the delivery end of the conveyor.

(b) Conveyors using electrically released brakes must be constructed so that the brakes cannot be released until power is applied, and the brakes are automatically engaged if the power fails or the operating control is returned to the “stop” position.

(5) You must make sure portable conveyors are stable within their operating ranges. When used at variable fixed levels, the unit must be secured at the operating level.

(6) You must provide readily accessible stop controls for use in an emergency whenever employees are required to walk or work in the vicinity of the conveyor. The emergency stop device must be available within easy reach from any position on or adjacent to the conveyor.

(7) You must not start powered conveyors until all employees are clear of the conveyor or have been warned that the conveyor is about to start.

(8) You must keep the area around conveyor loading and unloading points clear of obstructions during conveyor operations.

(9) You must meet the following requirements for lockout/tagout:

(a) Conveyors must be stopped and their power sources locked out and tagged out during maintenance, repair, and servicing, unless power is necessary for testing.

(b) The starting device must be locked out and tagged out in the stop position before an attempt is made to remove the cause of a jam or overload of the conveying medium, unless it is necessary to have the power on to remove the jam.

(10) You must meet the requirements for chutes, gravity conveyors and rollers:

(a) Chutes used in the manual handling of cargo must be adequate for the use to which they are put and must be kept free of splinters and sharp edges.

(b) Chutes must be equipped with sideboards of sufficient height to prevent cargo from falling off.

(c) Chutes and gravity roller sections must be firmly placed or secured to prevent displacement.

(d) Gravity rollers must be of sufficient strength for the weight of material, which is placed upon them. Rollers must be locked in position to prevent them from falling or jumping out of the frame.

(e) Frames must be kept free of burrs and sharp edges.

(f) When necessary, provision must be made for braking objects at the delivery end of the roller or chute.

(11) You must meet the following requirements for safe practices:

(a) Only designated persons must operate, repair or service powered conveyors.

(b) You must direct employees to stay off operating conveyors.

(c) Conveyors must be operated only with all overload devices, guards and safety devices in place and functional.

WAC 296-56-60091 Spouts, chutes, hoppers, bins, and associated equipment.

(1) You must inspect standing and running rigging and associated gear used as a permanent part of spouts, chutes or similar devices before each use and must not be used if it has any functional defects. (See WAC 296-56-60093 for certification requirements.)

(2) You must provide direct communication between the discharge or shipboard control end of loading spouts or chutes, and the point in the terminal from which the flow of cargo is controlled.

(3) You must guard chute and hopper openings which present a hazard to prevent employees from falling through.

(4) You must equip the hopper with a safe walkway and safe means of access when employees are working on hoppers.

(5) You must equip chutes with sideboards to afford protection from falling objects when necessary for the safety of employees.

(6) You must firmly place and secure chutes to prevent them from falling.

(7) You must make provisions for braking objects other than bulk commodities at the delivery end of the chute when necessary for the safety of employees.

(8) You must make sure that before an employee enters an empty bin:

(a) Personnel controlling the flow of cargo into the bin must be notified of the entry; and

(b) The power supply to the equipment carrying the cargo to the bin must be turned off, locked out and tagged.

(9) You must ensure that before an employee enters a bin containing a bulk commodity such as coal or sugar that:

(a) Personnel controlling the flow of cargo into the bin must be notified of the entry;

(b) The power supply to the equipment carrying the cargo to the bin must be turned off, locked out and tagged;

(c) The employee entering the bin must wear a life-line and safety harness; and

(d) A standby attendant equipped to perform a rescue must be continuously stationed outside the bin until the employee has left the bin.

(10) You must cover bin top openings that present a hazard to employees to prevent employees from falling into bins.

(11) You must make sure chutes and hoppers are only repaired by designated persons.

(12) You must have a designated person inspect the equipment that is to be used before power shoveling operations begin. The inspection must include at least the eye bolts, wires, and sheaves.

(a) Power shovels and associated equipment with defects affecting safe operation must not be used.

(b) Before adjustments are made to a power shovel, wire, or associated equipment, the power supply to the shovel must be turned off, locked out, and tagged, the belt stopped, and the hopper closed.

WAC 296-56-60093 Certification of marine terminal material handling devices.

(1) You must not use any material handling device listed in WAC 296-56-60098(8) until you have ascertained that the device has been certified, as evidenced by current and valid documents attesting compliance with the requirements of WAC 296-56-60097 and 296-56-60098.

(2) You must make sure certification surveys are completed for the conditions of use found at the time such surveys are performed. Equipment owners or users may change the configurations of the equipment according to the manufacturer's specifications without affecting the established certification status for the equipment.

(3) These rules apply to employment within a marine terminal including the loading, unloading, movement, or other handling of cargo, ship's stores, or gear within the terminal or into or out of any land carrier, holding or consolidation area, or any other activity within and associated with the overall operation and functions of the terminal, such as the use and routine maintenance of facilities and equipment.

(4) You must make sure inspection and test certificates are issued only for that equipment which meets or exceeds the requirements specified in these rules. All inspection and test certificates must be issued through the office of the assistant director of the division of consultation and compliance, department of labor and industries, and must be valid for a period not to exceed one year from the date of issuance.

(5) You must make sure equipment requiring certification is inspected by individuals who have received a “certificate of competency” from the assistant director of DOSH indicating that they are qualified and capable of performing such work.

(6) You must make sure that when deficiencies are found they are noted on forms provided for such purpose by the division of consultation and compliance. Copies must be delivered to the owner of the equipment and the division of consultation and compliance at the headquarters office by the person conducting such tests or inspections.

(7) You must make sure a certificate of unit test or examination of equipment is not issued for any equipment found not to be in compliance with the provisions of this chapter.

(8) You must make sure persons desiring a “certificate of competency demonstrate and document their capabilities and qualifications to the assistant director of the division of consultation and compliance, who will issue certificates to those persons who have demonstrated competency. The assistant director reserves the right to revoke such certificates at any time for cause. A “certificate of competency” must be issued for a period of not more than three years. Applications for renewal may be made not more than sixty days prior to the expiration date shown on the certificate.

(9) The assistant director of the division of consultation and compliance or their representative, reserves the right to inspect such equipment or to witness or attend any test or inspection in order to ascertain the adequacy of any certification activity performed.

(10) You must make sure, unless otherwise exempted, all cranes or derricks required to be certified by these regulations must have a current test certificate posted in the operator's cab or station. No person may operate such crane or derrick unless a current valid certificate is posted.

WAC 296-56-60095 Advisory crane certification panel.

(1) Any person desiring a certificate of competency for crane inspection or certification must make application to the assistant director of the division of consultation and compliance for the certificate of competency. The application must include documentation of all qualifications, including all past experience, education, training and any other factors deemed to be relevant to the application.

(2) The advisory crane certification panel must assist the assistant director of the division of consultation and compliance in their duties under this chapter. The panel must consist of six members. Two members must represent labor, two members must represent management, and one member must be a crane expert. The sixth member must be chair of the panel. The chair must be the assistant director of consultation and compliance or the chair's designee. The panel must be responsible for advising the assistant director as to the issuance of any certificate of competency. The panel must review all applications for certificates of competency. Minutes of meetings must be kept.

(3) In addition, the panel must, upon request by the assistant director, render advice concerning any matter which is relevant to crane safety. The panel must meet twice yearly or more often as deemed necessary by the chairman of the panel. Any panel member who is not an employee of the state of Washington must serve voluntarily.

WAC 296-56-60097 Unit proof load test and inspection.

(1) You must make sure cranes and derricks are proof load tested, rated and certified in tons (2,000 lbs. = 1 ton). Cranes and derricks must be inspected and unit proof load tested prior to being put into use, after any significant modification or repairs of structural parts, or when deemed necessary by the assistant director of consultation and compliance or their designee. However, each crane or derrick must be unit proof load tested at least once during each twelve-month period. Unit proof load tests must be carried out by the use of weights as a dead load. When use of weights for unit proof load tests is not possible or reasonable a dynamometer or other recording test equipment may be used. Such equipment must be tested for accuracy with certified calibrating equipment within twelve months prior to being used and a copy of the certified calibration test must be made available to authorized representatives of the division of consultation and compliance upon request.

(2) The weight of the objects used for a dead load weight test must be certified and a record of the weight must be made available upon request. Any replacements or repairs deemed necessary by the person conducting a test must be carried out before application of the required proof load unit test.

(3) The proof load tests for derricks must be conducted as follows:

Safe Working Load	Proof Load
To 20 tons	25% in excess
20-50 tons	5 tons in excess
Over 50 tons	10% in excess of manufacturer's recommended lifting capacity.

Proof load must be applied at the designed maximum and minimum boom angles or radii, or if this is impractical, as close to these as practical. The angles or radii of test must be stated in the certificate of test. Proof loads must be swung as far as possible in all directions. The weight of auxiliary handling devices such as spreader bars, robots, clams, magnets, or other gear must be considered a part of the load. Brakes must be tested by holding the proof load suspended without other mechanical assistance. After satisfactory completion of a unit proof load test the derrick and all component parts thereof must be carefully examined and nondestructive tests may be conducted to assure that the equipment is safe for use and has not been damaged in the unit proof load testing process.

(4) Unit proof load tests for cranes must be carried out with the boom in the least stable direction relative to the mounting, based on the manufacturer's specifications.

(5) Unit proof load tests for cranes must be based on the manufacturer's load ratings for the conditions of use and must, except in the case of bridge type cranes utilizing a trolley, consist of application of a proof load of ten percent in excess of the load ratings at maximum and minimum radius, and at such intermediate radii as the certifying authority may deem necessary in the circumstances. (The manufacturer's load ratings are usually based upon percentage of tipping loads under some conditions and upon limitations of structural competence at others, as well as on other criteria such as type of crane mounting, whether or not outriggers are used, etc. Some cranes utilizing a trolley may have only one load rating assigned and applicable at any outreach. It is important that the manufacturer's ratings be used.) Trolley equipped cranes must be subject to a proof load of twenty-five percent in excess of the manufacturer's load rating. In cases of foreign manufacture, the manufacturer's specifications must be subject to approval by the certifying authority. The weight of all auxiliary handling devices such as magnets, hooks, slings, and clamshell buckets must be considered part of the load.

(6) If the operation in which equipment is engaged never utilizes more than a fraction of the safe working load rating, the owner of the equipment may, at their option, have the crane or derrick certified for and operated at a lesser maximum safe working load in keeping with the use and based on radius and other pertinent factors, however, the equipment concerned must be physically capable of operation at the original load rating and the load reduction must not be for the purpose of avoiding correction of any deficiency.

(7) Safe working load ratings must not be increased beyond the manufacturer's ratings or original design limitations without prior approval by the accredited certification agency. Such prior approval must be based on the manufacturer's approval of such increase or documented engineering design analysis or both. All necessary structural changes must be completed prior to approval by the accredited certification agency.

WAC 296-56-60098 Examination and inspection of cranes and derricks.

(1) You must carry out an examination in conjunction with each annual unit proof load test. The accredited person, or their authorized representative, must make a determination as to correction of deficiencies found. The examination must include the following: (Refer to WAC 296-56-60093(8) for definition of accredited person.)

(a) All functional operating mechanisms must be examined for improper function, maladjustment, and excessive component wear, with particular attention to sheaves, pins, and drums. The examinations must include operation with partial load, in which all functions and movements, including maximum possible rotation in both directions, are checked.

(b) All safety devices must be examined for malfunction.

(c) Lines, tanks, valves, drains, pumps, and other parts of air or hydraulic systems must be examined for deterioration or leakage.

(d) Rope reeving must comply with the manufacturer's recommendations.

(e) Deformed, cracked, or excessively corroded members in crane structure and boom must be repaired or replaced as necessary.

(f) Loose bolts, rivets, or other connections must be corrected.

(g) Worn, cracked, or distorted parts affecting safe operation must be corrected.

(h) All brakes, used to control the load, boom or travel of the crane, must be tested. Air, hydraulic, or electrically operated brakes must be of such design as to set and stop the load if the source of power fails.

(i) Brake and clutch system parts, linings, pawls, and ratchets must be examined for excessive wear and free operation.

(j) Load, boom angle, or other indicators must be checked over their full range. Defects in such indicators must be immediately corrected.

(k) Where used, clamshell buckets or other similar equipment, such as magnets, must be carefully examined in all respects, with particular attention to closing line wires and sheaves. The accredited person may supplement such examination by requesting any operational tests deemed appropriate.

(l) Careful examination of the junction areas of removable boom sections, particularly for proper seating, cracks, deformities, or other defects in securing bolts and in the vicinity of such bolts, must be made.

(m) All platforms, steps and footwalks located on cranes where workers are exposed to the hazard of slipping must be of a nonslip material. Wire rope used for railings on cranes must be kept taut at all times.

Note: In critical areas such as footwalks along booms, a grating material should be used.

(n) No counterweights in excess weight of the manufacturer's specifications must be fitted or used.

(o) Such other examination or supplemental functional tests must be made as may be deemed necessary by the accredited person under the circumstances.

(2) You must meet the following requirements for wire rope:

(a) All wire rope must be inspected at least once a month, dependent upon conditions to which the wire ropes are subjected, and at intervals not exceeding a twelve-month period. Records of inspection of wire rope must be kept and must be available to the department of labor and industries representative. Records must be kept for one year. Refer to the general safety and health standards, WAC 296-24-24013.

(b) Wire rope must not be used if in any length of eight diameters, the total number of visible broken wires exceeds ten percent of the total number of wires, or if the rope shows other signs of excessive wear, corrosion, or defect. Particular attention must be given to the condition of those sections of wire rope adjacent to any terminal connections, those sections exposed to abnormal wear, and those sections not normally exposed for examination.

(c) Documentation available for inspection must include wire rope test certificates relating to any replacements made since the last unit test or annual examination as required.

(c) Wire rope and replacement wire rope must be of the same size, same or better grade, and same construction as originally furnished by the equipment manufacturer or contemplated in the design, unless otherwise recommended by the equipment or wire rope manufacturer due to actual working conditions. In the absence of specific requirements, wire rope must be of a size and construction suitable for the purpose, and must have the capacity to handle five times the heaviest expected load, verified by wire rope test certificate.

(d) Wire rope in use on equipment previously constructed and prior to initial certification of said equipment must not be required to be tested but must be subject to thorough examination at the time of initial certification of the equipment.

(3) You must meet the following requirements for accessory components:

(a) Container spreader bar twist locks must be carefully examined periodically and at the time of annual examination and inspection. Cracked or deformed hooks must be discarded immediately and not reused.

(b) Crane hooks and container spreader bar twist lock. Magnetic particle or other suitable crack detecting inspection must be performed at least once each year. When testing by x-ray, the pertinent provisions of the Nuclear Regulatory Commission's standards for protection against radiation, relating to protection against occupational radiation exposure, must apply.

(4) You must make sure, in the event that heat treatment of any loose gear is recommended by the manufacturer, the latest heat treatment certificate attesting to compliance with the manufacturer's specifications must be part of the available documentation. Heat treatment must be carried out in accordance with the specifications of the manufacturer by persons competent to perform such work.

(5) You must make sure replacement parts are of equal or better quality than the original equipment and suitable for the purpose. Repairs or modifications must be such as to render the equipment equal to or better than the original construction or design.

(6) You must make sure, in cases of foreign manufactured cranes, there is an owner's warranty that the design is adequate for the intended use. The warranty must be based on a thorough examination of the design specifications by a registered professional engineer familiar with the equipment.

(7) You must make sure the certifications required by this section are performed in accordance with WAC 296-56-60093 by persons accredited by the assistant director of DOSH.

(8) You must make sure the marine terminal material handling devices listed below are certified in the following manner:

(a) Each crane and derrick must be tested and examined as a unit annually. A copy of the certificate of tests and examinations must be posted in the crane operator's cab.

(b) Bulk cargo spouts and suckers, together with any portable extensions and rigging or outriggers supporting them vertically, must be examined annually. Certificates attesting to the required examination must be made readily available for inspection.

(c) Vertical pocket or bucket conveyors such as banana, sugar, and grain marine legs (other than those within a grain elevator structure) used within a marine terminal facility must be examined annually. The annual examination must include all supporting structures, rigging, mechanical components and observation of all steps of operations. Certificates attesting to the required examinations must be readily available for inspection.

(d) House fall cargo-handling gear must be proof load tested as a unit upon initial certification and every fourth year thereafter.

(i) An examination must be carried out in conjunction with each unit proof load test and annually thereafter. The unit test must consist of a proof load of twenty-five in excess of the rated working load. Examinations must include all supporting structures and components. Certificates attesting to the required tests and examinations must be readily available for inspection.

(ii) House fall span beams or other house fall block supports must be marked with the safe working load, which must not be exceeded.

(e) You must meet the following requirements for special gear:

(i) Special stevedoring gear provided by the employer, the strength of which depends upon components other than commonly used stock items such as shackles, ropes or chains, must be tested as a unit in accordance with the following table before initially being put into use (see Table A). In addition, any special stevedoring gear that suffers damage necessitating structural repair must be inspected and retested after repair and before being returned to service.

Table A	
Safe Working Load	**Proof Load**
Up to 20 short tons	25 percent in excess
Over 20 to 50 short tons	5 short tons in excess
Over 50 short tons	10 percent in excess

(ii) Special stevedoring gear provided by the employer that has a SWL of five short tons (10,000 or 4.54 metric tons) or less must be inspected and tested as a unit before initial use according to (d) and (e) of this subsection or by a designated person (see Table A).

(iii) Every spreader not a part of ship's gear and used for hoisting intermodal containers must be tested to a proof load equal to twenty-five percent in excess of its rated capacity. Additionally, any spreader which suffers damage necessitating structural repair must be retested after repair and before being returned to service.

(vi) Certificates attesting to the required tests must be available for inspection.

(v) All cargo handling gear covered by this section with a SWL greater than five short tons (10,000 lbs. or 4.54 metric tons) must be proof load tested according to Table A every four years in accordance with subsection (7) of this section or by a designated person.

(f) Wire rope and loose gear used for material handling must be tested and certified before being placed into use in accordance with the provisions of WAC 296-56-60097. Certificates attesting to the required tests, inspections and examinations must be available.

(9) You do not need to recertify equipment that has been disassembled and reassembled, provided that the equipment is reassembled and used in a manner consistent with its certification.

(10) Equipment certified in Washington and transferred to a site in another state does not require recertification in this state upon its return, until the next inspection or examination becomes due as if it had not been moved.

(11) You must make sure certification procedures are not construed as a substitute for, or cause for elimination of, normal operational inspection and maintenance routine throughout the year.

(12) You must make sure every unit of equipment requiring annual certification has had such annual certification within the previous twelve months.

(a) Equipment requiring annual certification must have had such annual certification within the previous twelve months, except that no annual certification is required within twelve months after any required certification. Annual examinations for certification may be accomplished up to one month early without effect on subsequent due dates.

(b) When certified equipment is out of service for six months or more beyond the due date of a certification inspection, an examination equivalent to an initial certification, including proof load tests, must be performed before the equipment reenters service.

(13) You must make sure loose gear bears a legible mark indicating that it has been tested (see WAC 296-56-60097). Single sheave blocks must be marked with safe working loads and proof test loads. Marks relating to testing must be identifiable on the related certificates, which must be available.

(14) The certification requirements of this section do not apply to the following equipment:

(a) Industrial trucks and small industrial crane trucks; and

(b) Any straddle truck not capable of straddling two or more intermodal containers sixteen feet (4.88 m) in width.

(15) You must meet the following requirements for safe working load:

(a) The safe working load of gear as specified in this section must not be exceeded.

(b) All cargo handling gear provided by the employer with a safe working load greater than five short tons (10,000 lbs. or 4.54 metric tons) must have its safe working load plainly marked on it.

WAC 296-56-60099 Hand tools.

(1) You must maintain hand tools used by employees in safe operating condition.

(2) You must make sure hand-held portable electric tools are equipped with switches that must be manually held in a closed position to operate the tool.

(a) Portable power-driven circular saws must be equipped with guards above and below the base plate or shoe.

(b) The upper guard must cover the saw to the depth of the teeth, except for the minimum arc needed to permit the base to be tilted for bevel cuts.

(c) The lower guard must cover the saw to the depth of the teeth, except for the minimum arc needed to allow proper retraction and contact with the work. When the tool is withdrawn from the work, the lower guard must automatically and instantly return to the covering position.

(3) You must make sure only cutting tools are used to cut metal strapping or banding used to secure cargo.

WAC 296-56-60100 Specialized Terminals.

Summary

This section applies to all specialized terminals in our workplace.

Your responsibility: To protect employees from hazards in specialized terminals in your workplace.

You must meet the requirements…	*in this section*
General	WAC 296-56-60101
Terminals handling intermodal containers or roll-on roll-off operations	WAC 296-56-60103
Grain elevator terminals	WAC 296-56-60105
Terminal facilities handling menhaden and similar species of fish	WAC 296-56-60107

WAC 296-56-60101 General.

The provisions of this part apply to specialized terminals.

WAC 296-56-60103 Terminals handling intermodal containers or roll-on roll-off operations.

(1) You must make sure every intermodal container is legibly and permanently marked with:

(a) The weight of the container when empty, in pounds;

(b) The maximum cargo weight the container is designed to carry, in pounds; and

(c) The sum of the maximum weight of the container with cargo, in pounds (gross container capacity).

(2) You must make sure no container is hoisted by any crane or derrick unless the following conditions have been met:

(a) You must ascertain from the carrier whether a container to be hoisted is loaded or empty. Empty containers must be identified before loading or discharge in such a manner as will inform every supervisor and foreman on the site and in charge of loading or discharging, and every crane or other hoisting equipment operator and signalman, if any, that the container is empty. Methods of identification may include cargo plans, manifests or markings on the container.

(b) In the case of a loaded container:

(i) The actual gross weight must be plainly marked so as to be visible to the crane operator, other hoisting equipment operator, signalman, and to every supervisor and foreman on the site and in charge of the operation; or

(ii) The cargo stowage plan or equivalent permanently recorded display serving the same purpose, containing the actual gross weight and the serial number or other positive identification of that specific container, must be provided to the crane or other hoisting equipment operator and signalman, if any, and to every supervisor and foreman on the site and in charge of the operation.

(c) Every outbound loaded container which is received at a marine terminal ready to load aboard a vessel without further consolidation or loading must be weighed to obtain the actual gross weight before being hoisted.

(d) When container weighing scales are located at a marine terminal, any outbound container with a load consolidated at that terminal must be weighed to obtain an actual weight before being hoisted.

(i) If the terminal has no scales, the actual gross weight may be calculated on the basis of the container's contents and the container's empty weight. The weights used in the calculation must be posted conspicuously on the container, with the name of the person making the calculation and the date.

(ii) Container weights must be subject to random sample weight checks at the nearest weighing facility. In cases where such weight checks or experience otherwise indicate consistently inaccurate weights, the weight of containers so calculated at the source from which the inaccurate weights originated must no longer be recognized as true gross weights. Such containers must not be hoisted unless actual gross weights have been obtained by weighing.

(e) The following containers are exempted from the requirements of (c) and (d) of this subsection:

(i) Open type vehicle containers.

(ii) The container is marked on the outside in such a manner that an employee can readily discern that the container is carrying vehicles.

(iii) Containers built specifically for the carriage of compressed gases.

(iv) The container carries only completely assembled vehicles and no other cargo.

(v) The vehicles are loaded into the container at the marine terminal.

(f) The weight of loaded inbound containers from foreign ports must be determined by weighing or by the method of calculation described in (d)(ii) of this subsection or by shipping documents.

(g) Any scale used within Washington state to weigh containers for the purpose of the requirements of this section must meet the accuracy standards of the state or local public authority in which the scale is located.

(3) You must make sure no container is hoisted if its actual gross weight exceeds the weight marked as required in subsection (1)(c) of this section, or if it exceeds the capacity of the crane or other hoisting device intended to be used.

(4) You must make sure there are marked or designated areas set aside within a container or roll-on roll-off terminal for passage of employees to and from active cargo transfer points, except where you provide transportation to and from those points.

(5) You must direct employees to stay clear of the area beneath a suspended container. Employees must stay clear of the area beneath a suspended container.

(6) You must make sure each employee working in the immediate area of container handling equipment or in the terminal's traffic lanes wears a high visibility vest (or equivalent protection).

Note to subsection (6) of this section: High visibility vests or equivalent protection means high visibility/retro-reflective materials which are intended to provide conspicuity of the user by day through the use of high visibility (fluorescent) material and in the dark by vehicle headlights through the use of retro-reflective material. The minimum area of material for a vest or equivalent protection is .5m(2) (760 in. (2)) for fluorescent (background) material and .13m(2) (197 in. (2)) for retro-reflective material. Vests or equivalent protection, such as high visibility/retro-reflective coveralls, that are available for industrial use, may also be acceptable.

(7) You must make sure containers are handled using lifting fittings or other arrangements suitable and intended for the purposes as set forth in (a) and (c) of this subsection, unless when damage to an intermodal container makes special means of handling necessary.

(a) Loaded intermodal containers of twenty feet (6.1 m) or more in length must be hoisted as follows:

(i) When hoisting by the top fittings, the lifting forces must be applied vertically from at least four top fittings or by means which will safely lift the container without damage. The lifting fittings provided must be used.

(A) The container being lifted is an ISO closed box container;

(B) The condition of the box is sound;

(C) The speed of hoisting and lowering is moderated when heavily ladened containers are encountered;

(D) The lift angle is at eighty to ninety degrees;

(E) The distance between the lifting beam and the load is at least eight feet and 2.4 inches (2.5m); and

(F) The length of the spreader beam is at least 16.3 feet (5m) for a twenty-foot container, and at least 36.4 feet (11.1 m) for a forty-foot container.

(ii) If hoisted from bottom fittings, the hoisting connections must bear on the fittings only, making no other contact with the container. The angles of the four bridle legs must not be less than thirty degrees to the horizontal in the case of forty foot (12.2 m) containers, thirty-seven degrees in the case of thirty foot (9.1 m) containers, or forty-five degrees in the case of twenty foot (6.1 m) containers.

(iii) Lifting containers by fork lift trucks or by grappling arms from above or from one side may be done only if the container is designed for this type of handling.

(b) Other means of hoisting may be used only if the containers and hoisting means are designed for such use.

(c) When using intermodal container spreaders that employ lanyards for activation of load-disengagement, all possible precautions must be taken to prevent accidental release of the load. Intermodal container spreader twistlock systems must be designed and used so that a suspended load cannot accidentally be released.

(d) Flatbed trucks or container chassis used to move intermodal containers must be equipped with pins, flanges, or other means to prevent the container from shifting.

(e) Flat bed, low boy trailers, (mafis) and other similar equipment used to transport containers must be marked with their cargo capacities and must not be overloaded.

(f) Each tractor must have all brake air lines connected when pulling trailers equipped with air brakes and must have the brakes tested before commencing operations.

(8) You must inspect intermodal containers for defects in structural members or fittings before handling. Any intermodal container found to be unsafe must be identified as such, promptly removed from service and repaired before being returned to service.

(9) You must make sure containers are not hoisted unless all engaged chassis twist locks are released.

(10) You must meet the following requirements for operations involving the lifting of two or more intermodal containers by the top container, also known as vertical tandem lifts (VTLs).

(a) Each employee involved in VTL operations must be trained and competent in the safety-related work practices, safety procedures, and other requirements in this section that pertain to their respective job assignments.

(b) No more than two intermodal containers may be lifted in a VTL.

(c) Before the lift begins, you must ensure that the two containers lifted as part of a VTL are empty.

Note: The lift begins immediately following the end of the prelift required by subsection (9)(c) of this section. Thus, the weight may be determined during the prelift using a load indicating device meeting WAC 296-56-60085 (1)(a) on the crane being used to the lift the VTL.

(d) The lift must be performed using either a shore-based container gantry crane or another type of crane that:

(i) Has the precision control necessary to restrain unintended rotation of the containers about any axis;

(ii) Is capable of handling the load volume and wind sail potential of VTLs; and

(iii) Is specifically designed to handle containers.

(e) You must ensure that the crane operator pauses the lift when the vertically coupled containers have just been lifted above the supporting surface to assure that each interbox connector is properly engaged.

(f) Containers below deck may not be handled as a VTL.

(g) VTL operations may not be conducted when the wind speed exceeds the lesser of:

(i) Fifty-five km/h (thirty-four mph or thirty knots); or

(ii) The crane manufacturer's recommendation for maximum wind speed.

(h) You must ensure that each interbox connector used in a VTL operation:

(i) Automatically locks into corner castings on containers but only unlocks manually (manual twistlocks or latchlocks are not permitted);

(ii) Is designed to indicate whether it is locked or unlocked when fitted into a corner casting;

(iii) Locks and releases in an identical direction and manner as all other interbox connectors in the VTL;

(iv) Has been tested and certificated by a competent authority of this chapter (for interbox connectors that are a part of a vessel's gear) or WAC 296-56-60093 (for other interbox connectors):

(A) As having a load-bearing surface area of eight hundred mm\two\ when connected to a corner casting with an opening that is sixty-five mm wide; and

(B) As having a safe working load of ninety-eight kN (ten thousand kg) with a safety factor of five when the load is applied by means of two corner castings with openings that are sixty-five mm wide or equivalent devices;

(v) Has a certificate that is available for inspection and that attests that the interbox connector meets the strength criteria given in (h)(iv) of this subsection; and

(vi) Is clearly and durably marked with its safe working load for lifting and an identifying number or mark that will enable it to be associated with its test certificate.

(i) Reserved.

(j) You must ensure that each container and interbox connector used in a VTL and each comer casting to which a connector will be coupled is inspected immediately before use in the VTL.

(i) Each employee performing the inspection must be capable of detecting defects or weaknesses and be able to assess their importance in relation to the safety of VTL operations.

(ii) The inspection of each interbox connector must include: A visual examination for obvious structural defects, such as cracks, a check of its physical operation to determine that the lock is fully functional with adequate spring tension on each head; and a check for excessive corrosion and deterioration.

(iii) The inspection of each container and each of its corner castings must include: A visual examination for obvious structural defects, such as cracks, a check for excessive corrosion and deterioration; and a visual examination to ensure that the opening to which an interbox connector will be connected has not been enlarged, that the welds are in good condition, and that it is free from ice, mud, or other debris.

(iv) You must establish a system to ensure that each defective or damaged interbox connector is removed from service.

(v) An interbox connector that has been found to be defective or damaged must be removed from service and may not be used in VTL operations until repaired.

(vi) A container with a corner casting that exhibits any of the problems listed in (j)(iii) of this subsection may not be lifted in a VTL.

(k) No platform container may be lifted as part of a VTL unit.

(11) You must meet the following requirements for transporting vertically coupled containers:

(a) Equipment other than cranes used to transport vertically connected containers must be either specifically designed for this application or evaluated by a qualified engineer and determined to be capable of operating safely in this mode of operation.

(b) You must develop, implement, and maintain a written plan for transporting vertically connected containers. The written plan must establish procedures to ensure safe operating and turning speeds and must address all conditions in the terminal that could affect the safety of VTL-related operations, including communication and coordination among all employees involved in these operations.

(12) You must establish a safe work zone within which employees may not be present when vertically connected containers are in motion.

(a) The safe work zone must be sufficient to protect employees in the event that a container drops or overturns.

(b) The written transport plan required by subsection (11)(b) of this section must include the safe work zone and procedures to ensure that employees are not in this zone when a VTL is in motion.

WAC 296-56-60105 Grain elevator terminals. Reserved.

WAC 296-56-60107 Terminal facilities handling menhaden and similar species of fish.

(1) You must make sure tanks in terminal areas used for receiving or storing bailwater for recirculating into vessel holds in discharging operations are opened or ventilated to minimize contamination of water circulated to the vessel.

(a) Bailwater tanks must be thoroughly drained upon completion of each day's operations and must be left open to the air. Drainage is unnecessary when bailwater has been treated to remove hydrogen sulfide-producing contaminants and the efficiency of such treatment has been established.

(b) Before employees enter a dock tank, it must first be drained, rinsed and tested for hydrogen sulfide and oxygen deficiency. Employees must not enter the tank when the hydrogen sulfide level exceeds twenty ppm or oxygen content is less than nineteen and one-half percent, except in emergencies such as to affect a rescue in accordance with the terminal's action plan complying with WAC 296-56-60010 (2)(d).

(c) Tests must be conducted by designated personnel with suitable test equipment and respiratory protective equipment complying with the provisions of this chapter and chapter 296-842 WAC.

(2) You must make sure pipelines and hoses on the dock or terminal used for receiving and circulating used bailwater are completely drained upon completion of each day's operation and left open to the air.

(3) You must make sure at least four units of respiratory protective equipment consisting of supplied-air respirators or self-contained breathing apparatus complying with the requirements of chapter 296-842 WAC are available in a suitably labeled cabinet for immediate use in case of an emergency caused by oxygen deficiency or hydrogen sulfide. Any employee entering a tank in an emergency must, in addition to respiratory protective equipment, wear a lifeline and safety harness to facilitate rescue. At least two other employees, similarly equipped, must be continuously stationed outside the tank to observe and to provide rescue services.

(4) You must make sure the plant superintendent and foremen are trained and knowledgeable about the hazards of hydrogen sulfide and oxygen deficiency. They must be trained in the use of appropriate respiratory and other protective equipment, and in rescue procedures. Other supervisory plant personnel must be informed of these hazards and instructed in the necessary safety measures, including use of respiratory and rescue equipment.

(5) You must make sure supervisory personnel are on hand at dockside to supervise discharging of bailwater from vessels.

WAC 296-56-60108 Personal Protection

Summary

This section applies to all personal protective equipment in your workplace.

Your responsibility: To protect employees from hazards in your workplace.

You must meet the requirements…	*in this section*
Eye protection	WAC 296-56-60109
Respiratory protection	WAC 296-56-60110
Head protection	WAC 296-56-60111
Foot protection	WAC 296-56-60113
Other protective measures	WAC 296-56-60115
Payment for protective equipment	WAC 296-56-60116
Maintenance and load limits	WAC 296-56-60117
Protection from falling	WAC 296-56-60119
Minimum safety requirements for docks and dock facilities	WAC 296-56-60121
Access to vessels	WAC 296-56-60122
Guarding of edges	WAC 296-56-60123
Clearance heights	WAC 296-56-60125
Cargo doors	WAC 296-56-60127
Platforms and skids	WAC 296-56-60129
Elevators and escalators	WAC 296-56-60131
Manlifts	WAC 296-56-60133

WAC 296-56-60109 Eye protection.

(1) You must provide eye protection equipment that complies with ANSI Z87.1, American National Standard Practice for Occupational and Educational Eye and Face Protection, edition 1989, revision 1998, or edition 2003 when employees perform work hazardous to the eyes.

(a) You may provide alternate eye and face protection if they can demonstrate such devices are at least as effective as those constructed in accordance with one of the above consensus standards.

(b) For employees wearing corrective spectacles, eye protection equipment required by (a) of this subsection must be of a type which can be worn over spectacles. Prescription ground safety lenses may be substituted if they provide equivalent protection.

(c) For additional requirements covering eye protection against radiant energy, see WAC 296-56-60235(8).

(2) You must maintain eye protection equipment in good condition.

(3) You must clean and disinfect used eye protection equipment before reissuance to another employee.

WAC 296-56-60110 Respiratory protection.

The respiratory protection requirements of chapter 296-842 WAC, apply.

WAC 296-56-60111 Head protection.

(1) You must make sure employees exposed to impact, falling or flying objects, or electric shocks or burns wear protective hats.

(2) You must ensure that all protective helmets comply with one of the following consensus standards:

(a) ANSI Z89.1-2009, American National Standard for Industrial Head Protection.

(b) ANSI Z89.1-2003, American National Standard for Industrial Head Protection.

(c) ANSI Z89.1- 1997, American National Standard for Industrial Head Protection.

(d) ANSI Z89.1-1986, American National Standard for Personnel Protection--Protective Headwear for Industrial Workers--Requirements.

(e) You may use alternate head protection if you can demonstrate such devices are at least as effective as those constructed in accordance with one of the above consensus standards.

(3) You must clean and disinfect protective hats previously worn before issuance by the employer to another employee.

WAC 296-56-60113 Foot protection.

(1) You must ensure that each affected employee wears protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects or objects piercing the sole.

(2) You must ensure that all protective footwear complies with one of the following consensus standards:

(a) ASTM F-2412-2005, Standard Test Methods for Foot Protection, and ASTM F-2413-2005, Standard Specification for Performance Requirements for Protective Footwear.

(b) ANSI Z41-1999, American National Standard for Personal Protection--Protective Footwear.

(c) ANSI Z41-1991, American National Standard for Personal Protection--Protective Footwear.

(d) You may use alternate footwear if you can demonstrate it is at least as effective as those constructed in accordance with one of the above consensus standards.

(3) You must make safety shoes readily available to all employees through means such as vendors or local stores.

WAC 296-56-60115 Other protective measures.

(1) You must meet the following requirements for protective clothing:

(a) Employees performing work that requires special protective clothing must be directed by the employer to wear the necessary special protective clothing.

(b) When necessary, protective clothing previously worn must be cleaned and disinfected before reissuance.

(2) You must meet the following requirements for personal flotation devices:

(a) You must provide and direct the wearing of personal flotation devices for those employees, such as line handlers, who are engaged in work in which they may be pulled into the water:

(i) When such employees are working in isolation: or

(ii) Where physical limitations of available working space creates a hazard of falling into the water; or

(iii) Where the work area is obstructed by cargo or other obstacles so as to prevent employees from obtaining safe footing for their work.

(b) Employees working on, over or along water, where the danger of drowning exists, must be provided with and must wear approved personal flotation devices.

(i) Employees are not considered exposed to the danger of drowning when:

(A) Working behind standard height and strength guardrails;

(B) Working inside operating cabs or stations which eliminate the possibility of accidental falling into the water;

(C) Wearing approved safety belts with lifeline attached so as to preclude the possibility of falling into the water.

(ii) Prior to and after each use, personal flotation devices must be inspected for defects which would reduce their designed effectiveness. Defective personal flotation devices must not be used.

(iii) To meet the requirement of (b) of this subsection, a personal flotation device must be approved by the United States Coast Guard as a Type I PFD, Type II PFD, Type III PFD, or Type V PFD, or equivalent, pursuant to 46 CFR 160 (Coast Guard Lifesaving Equipment Specifications) and 33 CFR 175.23 (Coast Guard Table of Devices Equivalent to Personal Flotation Devices).

(c) You must meet the following requirements for life rings:

(i) Along docks, walkways or other fixed installations on or adjacent to open water more than five feet deep, approved life rings with line attached must be provided. The life rings must be spaced at intervals not to exceed two hundred feet and must be kept in easily visible and readily accessible locations.

(ii) When employees are assigned work at other casual locations where exposure to drowning exists, at least one approved life ring with line attached must be provided in the immediate vicinity of the work.

(iii) Work assigned over water where the vertical drop from an accidental fall exceeds fifty feet, is subject to specific procedures approved by the department.

(iv) Lines attached to life rings must be at least ninety feet (27.43 m) in length, at least one-quarter inch in diameter and have a minimum breaking strength of five hundred pounds.

(v) Life rings must be United States Coast Guard approved thirty inch size (76.2 cm).

(vi) Life rings and attached lines must be maintained to retain at least seventy-five percent of their designed buoyancy and strength.

(3) You must provide emergency facilities and maintain them in good working order when employees are exposed to hazardous substances which may require emergency bathing, eye washing or other facilities.

(4) You must instruct employers to report every injury, regardless of severity, to you

(5) You must meet the following requirements for stretchers:

(a) There must be available for each vessel being worked, one Stokes basket stretcher, or its equivalent, permanently equipped with bridles for attaching to the hoisting gear.

(b) Stretchers must be kept close to vessels and must be positioned to avoid damage to the stretcher.

(c) A blanket or other suitable covering must be available.

(d) Stretchers must have at least four sets of effective patient restraints in operable condition.

(e) Lifting bridles must be of adequate strength, capable of lifting 1,000 pounds (454 kg) with a safety factor of five, and must be maintained in operable condition. Lifting bridles must be provided for making vertical patient lifts at container berths. Stretchers for vertical lifts must have foot plates.

(f) Stretchers must be maintained in operable condition. Struts and braces must be inspected for damage. Wire mesh must be secured and have no burrs. Damaged stretchers must not be used until repaired.

(g) Stretchers in permanent locations must be mounted to prevent damage and must be protected from the elements if located out-of-doors. If concealed from view, closures must be marked to indicate the location of the lifesaving equipment.

(6) You must make sure telephone or equivalent means of communication are readily available.

(7) You must make sure employees working on any bridge or structure leading to a detached vessel berthing installation must wear United States Coast Guard approved personal flotation devices except where protected by railings, nets, or safety belts and lifelines.

(8) You must make sure on all docks there are substantial built-in place ladders, spaced at intervals not to exceed four hundred feet, to reach the lowest water use. When portable ladders are to be used, ladders may be bolted to the bullrail or dock structure, or ladders can be secured to an embedded eye bolt in a concrete dock surface. The immediate area where such ladders or fastenings are located must be painted with a bright color or of a color which contrasts with the surrounding area. There must be a ladder at each end of the dock.

WAC 296-56-60116 Payment for protective equipment.

(1) You must provide the protective equipment, including personal protective equipment (PPE), used to comply with this part, at no cost to your employees, except as provided by subsections (2) through (6) of this section.

(2) You are not required to pay for nonspecialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots) and nonspecialty prescription safety eyewear, provided that you permit such items to be worn off the job site.

(3) You are not required to reimburse the employee for shoes or boots when you provide metatarsal guards and allow the employee, at their request, to use shoes or boots with built-in metatarsal protection.

(4) You are not required to pay for:

(a) Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots; or

(b) Ordinary clothing, skin creams, or other items, used solely for protection from the weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen.

(5) You must pay for replacement PPE, except when the employee has lost or intentionally damaged the PPE.

(6) You may allow the employee to use protective equipment that they own if it is adequate, and you are not required to reimburse the employee for that equipment. You must not require an employee to provide or pay for their own PPE, unless the PPE is excepted by subsections (2) through (6) of this section.

WAC 296-56-60117 Maintenance and load limits.

(1) You must maintain structural integrity of docks, piers, wharves, terminals and working surfaces.

(2) You must conspicuously post maximum safe load limits, in pounds per square foot (kilograms per square meter), of floors elevated above ground level, and pier structures over the water in all cargo areas.

Exception:
Pier structures used primarily for vehicle traffic may be posted in maximum pounds per axle weight.

(3) You must make sure maximum safe load limits are not exceeded.

(4) You must maintain all walking and working surfaces in the terminal area in good repair.

(5) You must secure all steel plates, boards, etc., used to temporarily cover small holes or weakened surfaces in such a manner as to prevent movement.

(6) You must barricade all large openings or weakened surfaces on all exposed sides with barricades equipped with blinkers, flashing lights, or reflectors.

(7) You must light areas around bitts or cleats where workers perform their duties as required in this section and have a nonslip surface around each bitt or cleat.

WAC 296-56-60119 Protection from falling.

The employer must ensure all employees are protected in accordance with the requirements in chapter 296-880 WAC, Unified safety standards for fall protection.

WAC 296-56-60121 Minimum safety requirements for docks and dock facilities.

Important:
No provision of this section shall be construed to imply that an employer or employees are responsible for repair, construction or otherwise bringing into compliance facilities over which they have no control.

(1) You must not allow employees to perform work on docks or dock facilities which you should know do not meet the minimum safety requirements of this section.

(2) Employees must not work on docks or dock facilities which they should know do not meet the minimum safety requirements of this section.

(3) You must install a safety bulletin board at each dock, pier, warehouse or designated area at the job site.

(4) You must post at prominent places in or adjacent to the work area, legible notices stating:

(a) The location of stretchers, blankets, first-aid equipment and telephones. (Where possible, directional arrows should point to locations.)

(b) The phone numbers of doctors, ambulance services and hospitals within the area and the phone numbers of the police department or other law enforcement agency. (Where possible these numbers must also be posted on or inside the cover of first-aid cabinets and kits.)

(5) You must ventilate all areas where employees are required to work as required by the "general occupational health standards, chapter 296-62 WAC.

(6) You must locate power outlets installed to supply power to vessels in such a manner that the workers will not come into contact with supply lines. Unprotected power lines must not be driven over by equipment. If located on the underside or waterside of the bull rail, a well-lighted walkway with hand rails must be provided to the power outlets.

WAC 296-56-60122 Access to vessels.

(1) You must not permit employees to board or leave any vessel, except a barge or river towboat, until the following requirements have been met:

(a) Whenever practical a gangway of not less than twenty inches wide walking surface of adequate strength, maintained and secured must be used. If a gangway is not practical a substantial straight ladder, extending at least thirty-six inches above the upper landing surface and adequately secured against shifting or slipping must be provided. When conditions are such that neither a gangway nor a straight ladder can be used, a Jacob's ladder meeting the requirements of subsection (4) of this section may be used.

(b) Each side of such gangway, and the turn table if used, must have a railing with a minimum height of thirty-three inches measured perpendicularly from rail to walking surface at the stanchion and a mid-rail. Rails must be of wood, pipe, chain, wire or rope and must be kept taut at all times.

(c) Gangways on vessels inspected and certified by the United States Coast Guard are deemed to meet the foregoing requirements, except in cases where the vessel's regular gangway is not being used.

(d) The gangway must be kept properly trimmed at all times.

(e) When a fixed tread accommodation ladder is used, and the angle is low enough to require employees to walk on the edge of the treads, cleated duckboards must be laid over and secured to the ladder.

(f) When the lower end of a gangway overhangs the water between the ship and the dock in such a manner that there is danger of employees falling between the ship and the dock, a net or other suitable protection must be rigged at the foot of the gangway in such a manner as to prevent employees from falling from the end of the gangway into the water or into the surface.

(g) If the foot of the gangway is more than one foot away from the edge of the apron, the space between them must be bridged by a firm walkway equipped with railings, with a minimum height of thirty-three inches with midrails on both sides.

(h) Supporting bridles must be kept clear so as to permit unobstructed passage for employees using the gangway.

(i) When the upper end of the means of access rests on or flush with the top of the bulwark, substantial steps properly secured and equipped with at least one substantial handrail approximately thirty-three inches in height must be provided between the top of the bulwark and the deck.

(j) Obstructions must not be laid on or across the gangway.

(k) The means of access must be illuminated for its full length.

(l) Unless construction of the vessel makes it impossible, the means of access must be so located that drafts of cargo do not pass over it. Loads must not be passed over the means of access while employees are on it.

(2) You must make sure gangways meeting the requirements of subsection (1)(a), (b), (i), (j) and (k) of this section are provided for access from wingwall to vessel or, when two or more vessels other than barges or river towboats are lying abreast, from one vessel to another.

(3) You must meet the following requirements for access to barges and river towboats:

(a) Ramps for access of vehicles to or between barges must be of adequate strength, provided with side boards, well maintained and properly secured.

(b) Unless employees can step safely to or from the wharf, float, barge, or river towboat, a ramp meeting the requirements of subsection (1)(a) of this section must be provided. When a walkway is impractical, a substantial straight ladder, extending at least thirty-six inches above the upper landing surface and adequately secured against shifting or slipping, must be provided. When conditions are such that neither a walkway nor a straight ladder can be used, a Jacob's ladder meeting the requirements of subsection (4) of this section may be used.

(c) The means of access must meet the requirements of subsection (1)(i), (j), and (k) of this section.

(4) Jacob's ladders.

(a) Jacob's ladders must be of the double rung or flat tread type. They must be well maintained and properly secured.

(b) A Jacob's ladder must either hang without slack from its lashings or be pulled up entirely.

WAC 296-56-60123 Guarding of edges.

(1) You must meet the following requirements for vehicle protection:

(a) Vehicle curbs, bull rails, or other effective barriers at least six inches (15.24 cm) in height and six inches in width, must be provided at the waterside edges of aprons and bulkheads, except where vehicles are prohibited. Curbs or bull rails installed after January 1, 1985, must be at least ten inches (22.9 cm) in height.

(b) The provisions of (a) of this subsection also apply at the edge of any fixed level above the common floor area from which vehicles may fall, except at loading docks, platforms and skids where cargo is moved by vehicles.

(2) The employer must ensure all employees are protected in accordance with the requirements in chapter 296-880 WAC, Unified safety standards for fall protection.

WAC 296-56-60127 Cargo doors.

(1) You must meet the following requirements for mechanically operated cargo doors:

(a) You must guard cargo door counterweights.

(b) Lift trucks and cranes must not be used to move mechanically operated doors except when necessary during repair to the doors. Ropes or other guarding must be provided to prevent entry into any area if the door may fall or slide.

(c) Vertically operated doors partially opened for work or ventilation must be secured to prevent accidental closing.

(2) You must meet the following requirements for tackle operated cargo doors:

(a) You must connect doors to their lifting tackle with shackles or other secure means.

(b) Lifting bridles and tackles must have a safety factor of five, based upon maximum anticipated static loading conditions.

(c) Devices must be provided to hold overhead doors in the open position and to secure them when closed.

(d) Lifting gear and hardware must be maintained in safe condition.

(e) Lifting ropes must be placed out of the work area and off the floor.

(3) You must meet the following requirement for horizontal sliding:

(a) Horizontal sliding door rollers must be constructed to prevent the door from disengaging from overhead tracks.

(b) Sliding doors must be secured to prevent them from swinging.

WAC 296-56-60129 Platforms and skids.

(1) You must provide guardrails meeting the requirements of WAC 296-56-60123(3) on all open sides of platforms and skids extending from piers, transit sheds or lofts and used for landing or hooking drafts. Alternate means, such as nets or safety belts and lifelines, may be used if guardrails are impractical.

(2) You must protect any employee working below a second-story platform or skid from falling objects.

(3) You must make sure platforms and skids are strong enough to bear the loads handled and are maintained in safe condition. Safe working loads, which must be posted or marked on or adjacent to platforms and skids, must have a minimum safety factor of five for all parts, based upon maximum anticipated static loading conditions and the ultimate strength of the construction material.

(4) You must provide and maintain platform and skid attachments that will prevent accidental movement of the skid or platform.

WAC 296-56-60131 Elevators and escalators.

(1) You must prohibit an elevator or escalator with a defect which affects safety from being used.

(2) You must make sure elevator safety devices shall not be overridden or made inoperable.

(3) You must thoroughly inspect elevators and escalators at intervals not exceeding one year. Additional monthly inspections for satisfactory operation must be conducted by designated persons. Records of the results of the latest annual elevator inspections must be posted in elevators. Records of annual escalator inspections must be posted in the vicinity of the escalator or be available at the terminal.

(4) You must make sure elevator landing openings are provided with doors, gates, or equivalent protection, which must be in place when the elevator is not at that landing, to prevent employees from falling into the shaft.

(5) You must post and make sure the elevator or escalator maximum load limits are not exceeded. Elevator load limits must be posted conspicuously both inside and outside of the car.

(6) You must make sure elevators are operated only by designated persons except for automatic or door interlocking elevators which provide full shaft door closing and automatic car leveling.

WAC 296-56-60133 Manlifts.

(1) You must inspect manlifts monthly by a designated person. Safety switches must be checked weekly. Manlifts found to be unsafe must not be operated until repaired. Inspections must include at least the following:

(a) Step fastenings;

(b) Rails;

(c) Rail supports and fastenings;

(d) Roller and slides;

(e) Belt and belt tension;

(f) Handholds and fastenings;

(g) Floor landings;

(h) Guardrails;

(i) Lubrication;

(j) Safety switches;

(k) Warning signs and lights;

(l) Illumination;

(m) Drive pulley;

(n) Bottom (boot) pulley and clearance;

(o) Pulley supports;

(p) Motor;

(q) Drive mechanism;

(r) Brake;

(s) Electrical switches;

(t) Vibration and misalignment;

(u) “Skip” on up or down run when mounting the step (indicating worn gears); and

(v) Emergency exit ladders.

(2) You must keep inspection records for at least one year. The record of the most recent inspection must be posted in the vicinity of the manlift or in the terminal.

(3) You must make sure an emergency stop device is available within easy reach from any position on the belt.

(4) You must conspicuously post manlift use instructions.

(5) You must provide an illuminated sign and red light that are visible to the user under the top floor opening of the manlift to warn the user to get off at that floor.

(6) You must provide a sign visible to descending passengers to warn them to get off at the bottom floor.

(7) You must provide an automatic stop device to stop the manlift when a loaded step passes the top landing, except that manlifts installed after October 3, 1983, must have two such devices.

(8) You must provide each step with a corresponding handhold.

(9) You must provide a fixed emergency ladder accessible from any position on the lift and meeting the requirements of WAC 296-56-60209 for the entire run of the manlift.

(10) You must meet the following requirements for landings:

(a) Clear and unobstructed landing spaces must be provided at each level. Manlifts constructed after October 3, 1983, that have a distance of fifty feet (15.24 m) or more between floor landings must have an emergency landing every twenty-five feet (7.62 m) or less of manlift travel.

(b) Open sides of emergency landings must be protected by guardrails.

(c) Floor landing entrances and exits must be guarded by mazes, self-closing gates, or equivalent protection.

(d) Landings must be of sufficient size and strength to support two hundred fifty pounds (1112 N).

(11) You must provide the ascending sides of manlift floor openings with cones or bevel guards to direct the user through the openings.

(12) You must equip, maintain, and use manlifts in accordance with the manufacturer's specifications, which must be available at the terminal.

(13) You must meet these requirements for bottom pulleys:

(a) The lower pulley must be supported by the lowest landing.

(b) Sides of the bottom pulley support must be guarded to prevent contact with the pulley or the steps.

(14) You must provide a clearance of at least eleven feet (3.35 m) between the top landing and the ceiling.

(15) You must equip manlifts that are:

(a) Self-engaging;

(b) Electrically released; and

(c) Capable of stopping and holding the manlift when the descending side is loaded with the maximum rated load.

WAC 296-56-60135 Manlifts-Electric.

Summary

This section applies to all electric manlifts in your workplace.

You must meet the requirements…	*in this section*
Manlifts-Electric	WAC 296-56-60135
Hoistway enclosures and landings	WAC 296-56-60139
Scope and application	WAC 296-56-60141
Hoistway gates	WAC 296-56-60143
Elevator car	WAC 296-56-60145
Elevator doors	WAC 296-56-60147
Counterweight, enclosures, and fastenings	WAC 296-56-60149
Guard rails	WAC 296-56-60151
Hoisting ropes	WAC 296-56-60153
Space under hoistways	WAC 296-56-60155
Car safeties	WAC 296-56-60157
Brakes	WAC 296-56-60159

You must meet the requirements…	*in this section*
Car control and safety devices	WAC 296-56-60161
Hoisting machine mechanisms	WAC 296-56-60167
Elevator car and counterweight buffers	WAC 296-56-60169
General requirements	WAC 296-56-60171

WAC 296-56-60139 Hoistway enclosures and landings.

You must fully enclose hoistways or make sure they are enclosed on all landings to a height of six feet above the landing floor or six feet above highest working level or stair level adjacent to the hoistway. Perforated hoistway enclosures can be used where fire resistance is not required, provided:

(1) Steel wire grill or expanded metal grill must be at least thirteen U.S. gauge steel wire.

(2) Openings in the enclosure must reject a one inch steel ball.

(3) All hoistway landings must be properly and adequately lighted.

WAC 296-56-60141 Scope and application.

WAC 296-56-60141 through 296-56-60171 apply to the installation, design, and use of all one man capacity, electric elevators subject to inspection under RCW 49.17.120.

WAC 296-56-60143 Hoistway gates.

(1) You must construct hoistway gates of wood slat, steel wire grill, expanded metal or solid material, providing all openings reject a two inch ball and resist a two hundred fifty pound horizontal thrust.

   (a) Steel wire and expanded metal gates must be of at least thirteen gauge steel.

   (b) Wood slats must be not less than two inches wide and one-half inch thick, nominal size.

   (c) Solid material must be not less than one-eighth inch reinforced sheet steel or one-half inch plywood.

(2) You must have hoistway gates be horizontal swinging, vertical or horizontal sliding or biparting gates.

   (a) Hoistway gates must extend the full width of the elevator car and from one inch above the landing floor to six feet or more above the floor.

   (b) Horizontal swinging gates must be prevented from swinging into hoistway.

(3) You must equip gates with interlocks or mechanical locks and electric contacts designed so that hoistway gates cannot be opened when the car is away from the landing.

WAC 296-56-60145 Elevator car.

(1) You must fully enclose elevator cars to car height or to a height of not less than six feet six inches whichever is greater. Elevator cars may be of perforated or solid material provided the material will withstand a horizontal thrust of seventy-five pounds without deflecting one-quarter inch and all openings will reject a one inch ball.

(a) Car frames must be of substantial metal or wood construction with a safety factor of four for metal frames and six for wood frames.

(b) Wood frames must be gusseted and bolted or otherwise secured with large washers and lock washers.

(c) The car platform must not exceed thirty inches inside dimension on each side (6.25 square foot area).

(2) Every car must have a substantial protective top. The front half may be hinged. The protective top may be made from number nine U.S. wire gauge screen, eleven gauge expanded metal, fourteen gauge sheet steel, or three-quarter inch or heavier plywood. If made of wire screen or metal, the openings shall reject a one-half inch diameter ball.

WAC 296-56-60147 Elevator doors.

You must provide elevator car doors on all elevators, except on fully enclosed hoistways equipped with hoistway gates and enclosed from the top of the hoistway opening to the ceiling on the landing side.

(1) Car doors may be of solid or perforated construction and must be capable of resisting a seventy-five pound thrust without deflecting one-quarter inch.

(2) Car doors may be biparting or otherwise horizontally swung provided the door swings within the elevator car.

(3) A positive locking latch device which resists a two hundred fifty pound thrust must be provided.

(4) Interlocks or mechanical locks and electric contacts must be provided on cars operating in open hoistways.

WAC 296-56-60149 Counterweight, enclosures, and fastenings.

You must fully enclose all counterweights for their full length of travel except in closed hoistways where counterweight guide rails have been provided.

(1) Counterweight enclosures must provide an inspection opening in the bottom of the enclosure large enough to provide for the inspection of cable fastenings, counterweight and buffer. Counterweights of rectangular shape must be secured by not less than two one-half inch mild steel bolts with locknuts. Round counterweights must be fastened with a center bolt not less than three-quarter inch diameter and secured with a locknut.

(2) Bolt eyes must be welded closed.

(3) Cable fastenings must be not less than three U-shaped clamps with U's on the dead side of the rope or babbitted tapered elevator sockets.

WAC 296-56-60151 Guide rails.

You must provide a minimum of two car guide rails. They must:

(1) Extend at least six inches beyond the maximum travel of the car with buffers compressed.

(2) Be securely fastened to a vertical supporting member for the full length of elevator travel.

(3) Be not less than one and one-half inch by one and one-half inch vertical grain fir or equivalent, one-quarter inch by two inch by two inch angle iron or equivalent.

(4) Not vary more than three-sixteenths inch thickness on brake surfaces for wood guide rails.

(5) Be secured to resist more than one-half inch total deflection on car safety application and resist a two hundred fifty pound horizontal thrust.

WAC 296-56-60153 Hoisting ropes.

You must make sure hoisting ropes are be of good grade elevator traction wire rope and must:

(1) Be at least two ropes of not less than three-eighths inch diameter providing a safety factor of five.

(2) Be fastened by at least three U-type cable clamps with the U on the dead return end of the rope or by approved elevator sockets of the babbitted type.

(3) Be of such length that the car platform will not be more than six inches above the top landing when the counterweight buffer is fully compressed. The counterweight must be six inches or more away from the counterbalance sheave when the car buffer is fully compressed.

WAC 296-56-60155 Space under hoistway.

You must make sure there is no habitable space below the elevator hoistway and counterweight shaft unless the floor is designed to withstand an impact one hundred twenty-five percent greater than the impact generated by a free fall of either the car or counterweight from the full height of the hoistway.

WAC 296-56-60157 Car safeties.

You must equip all cars suspended or operated from overhead machinery with an approved car safety capable of stopping and holding the car with rated load.

(1) Car safeties must operate mechanically and be independent of interruption of any electrical circuit.

(2) Car safeties and governor controlled safeties must automatically operate and the control circuit must be broken in the event of cable breakage.

WAC 296-56-60159 Brakes.

You must equip all elevators with brakes designed to engage mechanically and release electrically.

(1) Brakes must be located on the final drive of all elevator machines.

(2) The brake actuating circuit must be so designed that interruption of power by slack cable switch, control switch, and limit switches actuate the brake.

(3) The brakes must actuate under short circuit, phase failure, or reverse phase conditions.

WAC 296-56-60161 Car controls and safety devices.

(1) You must make sure car controls are of automatic pushbutton, constant pressure pushbutton or momentary pushbutton types. Hand rope and car switch controls must not be used.

(2) You must install manually operated emergency stop switches in all cars not equipped with constant pressure pushbutton controls. The switch must be clearly marked "emergency stop."

(3) You must make sure terminal limiting devices operate independently of the car controls and automatically stop the car at the top and bottom terminal landings.

(4) You must equip all winding drum machine type elevators with top and bottom final limit switches.

(5) You must require a slack rope device of manual reset design on all winding drum type machines. The device must be designed to de-energize the circuit to the drive motor and brake.

(6) You must equip all installations with an overspeed governor. This governor must be set not to exceed one hundred seventy-five feet per minute and must be designed to deenergize the brake control and motor drive circuits simultaneously with the activation of the car safety mechanism. Car speeds for these types of installations must not exceed a speed of one hundred twenty-five feet per minute.

WAC 296-56-60167 Hoisting machine mechanisms.

(1) You must make sure elevator machines are driven by approved type units.

   (a) On direct drive or approved worm gear driven type, a mechanically actuated, electrically released brake must be installed on the driving unit.

   (b) On V belt driven types, a minimum of four belts, one-half inch minimum size, must be used to transmit power from the motor to the drive shaft and a mechanically actuated, electrically released brake must be installed on the final drive shaft.

(2) You must install elevator machines on the top side of their supporting structure, wherever practical.

(3) You must make sure all components of the driving mechanism and parts subject to stress involved in suspending the load or related equipment are designed to withstand eight times the total weight to be suspended, including load, counterweight, car and cables.

(4) You must make sure gears are made of steel or equivalent material. Cast iron gears are prohibited.

WAC 296-56-60169 Elevator car and counterweight buffers.

(1) You must provide elevator cars with adequate car buffers.

(2) You must provide all elevators using a counterweight with adequate counterweight buffers.

WAC 296-56-60171 General requirements.

(1) You must provide adequate lighting at each landing and in the shaftway.

(2) You must conspicuously post a sign within the care bearing the following information:

(a) Maximum capacity one person;

(b) Total load limit in pounds;

(c) For authorized personnel use only.

(3) You must make a fire extinguisher in proper working condition available in the car.

> **Note**: For additional requirements relating to portable fire extinguishers see WAC 296-800-300.

WAC 296-56-60179 Manlifts-Hand power.

Summary

This section applies to the installation, design, and use of all one-man capacity, hand powered counterweight elevators subject to inspection under RCW 49.17.120.

Your responsibility: To protect workers from hazards associated with hand power manlifts in your workplace.

You must meet the requirements…	*in this section*
Scope and application	WAC 296-56-60180
Hoistway landings	WAC 296-56-60183
Hoistway clearances	WAC 296-56-60185
Habitable space under hoistways	WAC 296-56-60187
Hoistway guide rails	WAC 296-56-60189
Buffer springs and overtravel of car	WAC 296-56-60191
Car specifications	WAC 296-56-60193
Counterweights	WAC 296-56-60195
Sheaves	WAC 296-56-60197
Hoisting ropes	WAC 296-56-60199

You must meet the requirements…	*in this section*
Operating rope	WAC 296-56-60201
Lighting	WAC 296-56-60203
Overhead supports	WAC 296-56-60205
General requirements	WAC 296-56-60207

WAC 296-56-60180 Scope and application.

WAC 296-56-60180 through 296-56-60207 apply to the installation, design, and use of all one man capacity, hand power counterweighted elevators subject to inspection under RCW 49.17.120.

WAC 296-56-60183 Hoistway landings.

(1) You must protect every hoistway landing on all sides other than the landing opening side with a standard guard rail and intermediate guard rail. All landings except the bottom landing must have a toe board installed on all sides except the landing opening side.

(2) You must make sure all hoistway entrances are not less than six feet six inches in height and in no case shall the width exceed the corresponding car dimensions.

(3) You must provide all hoistway entrances must be provided with an approved maze or with a hoistway gate which must:

(a) Be at least thirty-six inches in height.

(b) Extend downward to within one inch of the landing sill.

(c) Be of the self-closing type, designed to swing horizontally out from the hoistway and closing against a full jam stop.

(d) Be located within four inches of the hoistway edge of the landing sill.

(e) Have a “DANGER” sign conspicuously posted on the landing side of the hoistway gate.

(f) Withstand a two hundred fifty pound horizontal thrust.

(4) You must make sure all projections extending inwardly from the hoistway enclosure at the entrance side of the car platform are bevelled and substantially guarded on the underside by smooth solid material set at an angle of not less than sixty degrees, nor more than seventy-five degrees from the horizontal when cars are not equipped with gates.

WAC 296-56-60185 Hoistway clearances.

(1) You must make sure the minimum clearance between the side of the car and a hoistway enclosure is one inch.

(2) You must make sure the clearance between the car platform and the landing sill is not less than one-half inch and not more than one and one-half inches.

WAC 296-56-60187 Habitable space under hoistways.

You must make sure there is no habitable space below the elevator hoistway or counterweight shaft unless the floor is supported to withstand any impact caused by the car or counterweight dropping freely onto the floor.

WAC 296-56-60189 Hoistway guide rails.

(1) You must make sure there are a minimum of two opposing guide rails extending to a point six inches beyond the full height of travel of the car when the counterweight buffer is fully compressed.

(2) You must make sure all rails are attached by bolts, lag screws or other approved methods to a vertical supporting member which does not exceed one-half inch deflection with the application of a two hundred fifty pound horizontal thrust at any point.

(3) You must make sure wood guide rails are at least one and one-half inch by one and one-half inch vertical grain fir or equivalent and must not vary more than three-sixteenth inch in thickness on the sides which the brakes contact. All joints must be kept smooth and even.

WAC 296-56-60191 Buffer springs and over travel of car.

You must install substantial spring buffers below the car and also below the counterweight. The hoisting rope must be of such length that the car platform will not be more than eight inches above the top landing when the counterweight buffer spring is fully compressed.

WAC 296-56-60193 Car specifications.

(1) You must make sure the car shall be built to the following specifications:

(a) The car platform is not greater than thirty inches on either side (6.25 square feet area).

(b) The car frame and platform must be of steel or sound seasoned wood construction and be designed with a safety factor of not less than four for metal and six for wood, based on a maximum capacity of two hundred fifty pounds.

(c) All frame members must be securely bolted, riveted or welded and braced. If bolted, lock washers or lock nuts must be used.

(d) Where wooden frame members are bolted, large washers or metal plates must be used to minimize the possibility of splitting or cracking the wood.

(2) You must enclose the sides of the car by a minimum of two safety guard rails with the top rail not less than thirty-six inches nor more than forty-two inches from the car floor. Rails must sustain a horizontal thrust of two hundred fifty pounds. If solid material is used it must be smooth surfaced and not less than one-half inch thickness, if wood; not less than sixteen gauge thickness, if steel; and must be constructed from the car floor to a height of not less than three feet.

(a) Where the hoistway is not enclosed on the entrance side of the car, a self-locking or drop bar gate must be provided. The car gate may be of the folding type, horizontally swung, provided it swings into the car enclosure. Drop bar gates must be of two bar construction, parallelogram type, and conform to requirements specified for car guard rails.

(b) The car gate must drop into locking slots or be provided with a positive locking type latch capable of withstanding two hundred fifty pounds horizontal thrust.

(3) You must make sure every car has a substantial protective top. The front half may be hinged. The protective top may be made from number nine U.S. wire gauge screen, eleven gauge expanded metal, fourteen gauge sheet steel, three-quarter inch or heavier plywood. If made of wire screen or metal, the openings must reject a one-half inch diameter ball.

(4) You must make sure every car has a proper rack to hold the balance weights.

(5) You must conspicuously post a sign within the car bearing the following information:

(a) Maximum capacity one person;

(b) Total load limit in pounds;

(c) For authorized personnel use only.

(6) You must equip every car with a spring loaded foot brake which:

(a) Operates independently of the car safeties;

(b) Operates in both directions and will stop and hold the car and its load;

(c) Locks the car in its position automatically whenever the operator releases the pressure on the foot pedal.

(7) You must equip every car with a car safety device which:

(a) Applies to the sides of the main guide rails;

(b) Stops and holds the car and its load immediately when the hoisting rope breaks.

(8) You must make sure every car has a minimum clearance of six feet six inches from the top of the car platform to the bottom edge of the crosshead or any other obstruction.

(9) You must provide and firmly attach a tool box with minimum dimensions of four inches wide by sixteen inches long by three inches in depth to the car structure.

WAC 296-56-60195 Counterweights.

(1) You must make sure the assembly of sectional counterweights conforms to the following requirements:

(a) Rectangular counterweights must be held together by at least two tie rods one-half inch in diameter fastened with lock washers and double nuts or other approved means.

(b) One three-quarter inch rod may be used to hold the sections of a round counterweight together. Any additional sections or weights must be secured by an approved means.

(2) You must make sure the eye bolt for the rope hitch is be attached to the counterweight in a manner that will prevent the eye bolt from coming loose. The eye of eye bolts must be welded to prevent it from opening.

(3) You must enclose every counterweight runway with substantial unperforated material for its full distance of travel. Inspection openings must be provided at either the top or bottom of the counterweight runway. These openings must be substantially covered at all times except when actually being used for inspection of counterweight fastenings.

(4) You must make sure workmen load the counterweight for the proper balance of the heaviest person using the elevator and others must use compensating weights, which must be available, to maintain a balance.

(5) You must install a compensating chain or cable on elevators with travel of seventy-five feet or more to maintain the proper balance of the counterweight to the car and load in all positions.

WAC 296-56-60197 Sheaves.

You must make sure the minimum sheave diameter is forty times the diameter of the ropes used, i.e., fifteen inch for three-eighths inch rope.

WAC 296-56-60199 Hoisting ropes.

(1) You must make sure hoisting rope is of good grade traction elevator wire rope, and must:

(a) Be not less than three-eighths inches in diameter.

(b) Provide a safety factor of five based on the maximum weight supported.

(c) Be of sufficient length to prevent the counterweight from striking the overhead structure when car is at bottom, and prevent the car from striking the overhead before the counterweight is at its lower limit of travel.

(d) Be fastened at each end by at least three or more clamps, with the “U” of the clamp bearing on the dead end of the rope.

(e) Where passed around a metal or other object less than three times the diameter of the cable, have a thimble of the correct size inserted in the eye.

(2) You must use approved sockets or fittings with the wire properly turned back and babbitted in place of clamps noted in subsection (1)(d) of this section.

WAC 296-56-60201 Operating rope.

You must make sure the operating rope is of soft hemp or cotton at least three-quarter inch in diameter. It must be securely fastened at each end and must be in proper vertical alignment to prevent bending or cutting where it passes through the openings in the platform or the protective top of the car.

WAC 296-56-60203 Lighting.

You must provide adequate lighting each landing and in the shaftway.

WAC 296-56-60205 Overhead supports.

You must make sure the overhead supporting members are designed, based upon impact loads, with a safety factor of:

(1) Nine if wood;

(2) Five if steel.

WAC 296-56-60207 General requirements.

(1) You must prohibit any person other than an employee or duly authorized person from riding in the car.

(2) You must install escape ladders extending the full length of the hoistway and must be located in a position so that, in an emergency, a person can safely transfer from the car platform to the ladder. An "IMPAIRED CLEARANCE" sign must be posted at the bottom of a ladder when the face of the ladder is less than thirty inches from any structure.

(3) You must install an automatic safety dog or device which will prevent the car from leaving the landing until manually released by the operator.

(4) You must make available a fire extinguisher in proper working condition in the car.

> Note: For additional requirements relating to portable fire extinguishers see WAC 296-800-300.

WAC 296-56-60208 Ladders, stairway openings, sanitation, signs, etc.

Summary

This section applies to all ladders, stairway openings, sanitation, signs, etc.

Your responsibility: To protect employees from hazards in your workplace.

You must meet the requirements…	*in this section*
Fixed ladders	WAC 296-56-60209
Portable ladders	WAC 296-56-60211
Jacob's ladders	WAC 296-56-60213
Fixed stairways	WAC 296-56-60215
Spiral stairways	WAC 296-56-60217
Employee exits	WAC 296-56-60219

You must meet the requirements…	*in this section*
Illumination	WAC 296-56-60221
Passage between levels and across openings	WAC 296-56-60223
Guarding temporary hazards	WAC 296-56-60225
River banks	WAC 296-56-60227
Sanitation	WAC 296-56-60229
Sign and marking	WAC 296-56-60231

WAC 296-56-60209 Fixed ladders.

(1) This section applies to all fixed ladders except:

(a) Ladders forming an integral part of railway cars, highway carriers, cargo containers, or other transportation carrier equipment;

(b) Climbing devices such as step bolts or structural members of tanks and towers;

(c) Ladders built into or vertically attached to tubular scaffold framing; and

(d) Ladders used only for firefighting or emergency purposes are exempt from the provisions of subsection (5) of this section. All other requirements of this section apply.

(2) You must meet the following requirements for ladders with defects

(a) Ladders with broken, split, or missing rungs, steps or rails, broken welds or connections, corrosion or wastage, or other defect which may affect safe use must be removed from service.

(b) Ladder repairs must provide strength at least equivalent to that of the original ladder.

(3) You must meet the following requirements for ladder specifications:

(a) Ladders installed before October 3, 1983, must be capable of withstanding without damage a minimum concentrated load, applied uniformly over a three and one-half inch (8.9 cm) width at the rung center, of two hundred pounds (890 N).

(b) Ladders installed after October 3, 1983, must be capable of withstanding two hundred fifty pounds (1112 N) applied as described in (a) of this subsection. If used by more than one employee simultaneously, the ladder as a unit must be capable of simultaneous additional loading in two hundred fifty pound (1112 N) increments for each additional employee, applied to a corresponding number of rungs. The unit must have a safety factor of four based on ultimate strength, in the designed service.

(c) Ladders installed before October 3, 1983, must have rungs evenly spaced from nine to sixteen and one-half inches (22.9 to 41.9 cm) apart, center to center.

(d) Ladders installed after October 3, 1983, must have rungs evenly spaced twelve inches apart, plus or minus two inches (30.5 cm, plus or minus 5.08 cm), center to center.

(e) Ladders installed before October 3, 1983, must have a width between side rails of at least ten inches (25.4 cm).

(f) Ladders installed after October 3, 1983, must have a width between side rails of at least twelve inches (30.48 cm).

(g) The minimum distance between the rung center line and the nearest permanent object behind the rung must be four inches (10.16 cm), except that in ladders installed after October 3, 1983, the minimum distance must be seven inches (17.78 cm) unless physical limitations make a lesser distance, not less than four and one-half inches (11.43 cm), necessary.

(h) When a ladder passes through an opening or past overhead obstructions, a minimum twenty-four inch (.61 m) clearance must exist between the climbing side and any obstruction. Where this distance is less than thirty inches (0.76 m), a deflection device must be installed for guidance through the opening.

(i) The side rails of ladders must extend at least thirty-six inches (0.91 m) above the top landing surface, unless grab bars or equivalent holds are provided.

(j) Ladders whose pitch exceeds ninety degrees to the horizontal (slanting backward on the climbing side) must not be used.

(4) You must meet the following requirements to protect against falls:

(a) Fixed ladders more than twenty feet (6.1 m) in height must be provided with a cage, well, or ladder safety device.

(b) When a well or cage is used, ladders with length of climb exceeding thirty feet (9.14 m) must comply with the following provisions:

(i) The ladder must consist of multiple sections not exceeding thirty feet (9.14 m) each;

(ii) Each section must be horizontally offset from adjacent sections, except as specified in (b)(iv) of this subsection; and

(iii) A landing platform capable of supporting a load of one hundred pounds per square foot (4.79 kPa) and fitted with guardrails complying with WAC 296-56-60123(3) must be provided at least every thirty feet (9.14 m), except as specified in (b)(iv) of this subsection; and

(iv) For ladders installed after October 3, 1983, offset sections and landing platforms are not required if hinged platforms capable of supporting one hundred pounds per square foot (4.79 kPa), and which are kept closed except when opened for passage, are within the cage or well at intervals not exceeding thirty feet (9.14 m).

(c) Ladders equipped with ladder safety devices must have rest platforms:

(i) Capable of supporting a load of one hundred pounds per square foot (4.79 kPa);

(ii) Located at intervals of one hundred fifty feet (45.7 m) or less; and

(iii) Protected by guardrails complying with WAC 296-56-60123(3) on three sides.

(d) Where used, ladder safety devices must:

(i) Be installed and maintained in accordance with the manufacturer's instructions, which must be available for inspection upon request;

(ii) Be repaired only with replacement parts having performance capability at least equal to that of the original parts;

(iii) Have a connection length between carrier centerlines and safety belts of 10 ± 2 inches (25.4 ± 5.08 cm); and

(iv) Be installed in a manner that does not reduce the ladder's structural capacity.

(e) Ladder cages or wells must:

(i) Be of rigid construction that allows unobstructed use but prevents an employee from falling through or dislodging the cage or well by falling against it;

(ii) Have smooth inner surfaces;

(iii) Extend at least thirty-six inches (0.91 m) above landings; and

(iv) Extend to within eight feet (2.44 m) above the ground or base, except that a maximum of twenty feet (6.1 m) is permitted where the cage or well would extend into traffic lanes.

(f) Ladders installed after January 1, 1985, on radio, microwave communications, electrical power and similar towers, poles and structures, including stacks and chimneys, must meet the requirements of this subsection.

(5) You must make sure ladders consisting of individual rungs that are attached to walls, conical manhole sections or river cells are:

(a) Capable of supporting a load of three hundred fifty pounds (1557 N) without deformation;

(b) Form a continuous ladder, uniformly spaced vertically from twelve inches to sixteen inches (30.5 to 40.6 cm) apart, with a minimum width of ten inches (25.4 cm), and projecting at least four and one-half inches (11.43 cm) from the wall;

(c) Constructed that an employee's foot cannot slide off the ends; and

(d) Be firmly attached and without sharp edges.

WAC 296-56-60211 Portable ladders.

(1) You must meet the following requirements of this section as it applies to all portable ladders, including job-made ladders for temporary use, unless otherwise specified.

(2) You must meet the standards for existing manufactured portable ladders as follows:.

(a) Rungs of manufactured portable ladders obtained before October 3, 1983, must be capable of supporting a two hundred pound (890 N) load without deformation.

(b) Rungs must be evenly spaced from nine to sixteen and one-half inches (22.9 to 41.9 cm), center to center.

(c) Rungs must be continuous members between rails. Each rung of a double-rung ladder (two side rails and a center rail) must extend the full width of the ladder.

(d) Width between side rails at the base of the ladder must be at least twelve inches (30.48 cm) for ladders ten feet (3.05 m) or less in overall length, and must increase at least one-fourth inch (0.64 cm) for each additional two feet (0.61 m) of ladder length.

(3) You must make sure manufactured portable ladders obtained after October 3, 1983, bear identification indicating that they meet the appropriate ladder construction requirements of the following standards:

(a) ANSI A14.1-1990 Safety Requirements for Portable Wood Ladders

(b) ANSI A14.2-1990 Safety Requirements for Portable Metal Ladders

(c) ANSI A14.5-1992 Safety Requirements for Portable Reinforced Plastic Ladders

(4) You must meet these standards for job-made portable ladders.

(a) Have a minimum and uniform distance between rungs of twelve inches (30.48 cm), center to center;

(b) Be capable of supporting a two hundred fifty pound (1112 N) load without deformation; and

(c) Have a minimum width between side rails of twelve inches (30.48 cm) for ladders ten feet (3.05 m) in height. Width between rails must increase at least one-fourth inch (0.64 cm) for each additional two feet (0.61 m) of ladder length.

(5) You must meet the following requirements for maintenance and inspection:

(a) You must maintain portable ladders in safe condition. Ladders with the following defects must not be used and either must be tagged as unusable if kept on the premises or must be removed from the worksite:

(i) Broken, split or missing rungs, cleats, or steps;

(ii) Broken or split side rails;

(iii) Missing or loose bolts, rivets, or fastenings;

(iv) Defective ropes; or

(v) Any other structural defect.

(b) Ladders must be inspected for defects prior to each day's use, and after any occurrence, such as a fall, which could damage the ladder.

(6) You must meet the following requirements for ladder usage:

(a) Ladders made by fastening rungs or devices across a single rail are prohibited.

(b) Ladders must not be used:

(i) As guys, braces, or skids; or

(ii) As platforms, runways, or scaffolds.

(c) Metal and wire-reinforced ladders with wooden side rails must not be used when employees on the ladder might come into contact with energized electrical conductors.

(d) Individual sections from different multisectional ladders or two or more single straight ladders must not be tied or fastened together to achieve additional length.

(e) Except for combination ladders, self-supporting ladders must not be used as single straight ladders.

(f) Unless intended for cantilever operation, nonself-supporting ladders must not be used to climb above the top support point.

(g) Ladders must extend at least thirty-six inches (0.91 m) above the upper support level if employees are to leave or mount the ladder at that level, except that where such extension is impractical other equivalent means such as grab bars may be used to provide a hand grip.

(h) Ladders must be securely positioned on a level and firm base.

(i) Ladders must be fitted with slip-resistant bases and secured at top or bottom to prevent the ladder from slipping.

(j) Ladders must be placed so that employees climbing are not exposed to injury from projecting objects or doors that open toward the ladder.

WAC 296-56-60213 Jacob's ladders.

(1) You must make sure Jacob's ladders are of the double rung or flat tread type. They must be well maintained and properly secured to the dock.

(2) You must either hand a Jacob's ladder without slack from its lashings or be pulled up entirely.

WAC 296-56-60215 Fixed stairways.

You must meet these requirements for new installations:

(1) Fixed stairs installed after October 3, 1983, must be positioned within the range of thirty degrees to fifty degrees to the horizontal with uniform riser height and tread width throughout each run and be capable of a minimum loading of one hundred pounds per square foot (445 N) and a minimum concentrated load of three hundred pounds (1334 N) at the center of any treadspan. Riser height must be from six to seven and one-half inches (15.24 to 19.05 cm), stair width a minimum of twenty-two inches (55.88 cm) between vertical barriers, and tread depth a minimum of 12 ± 2 inches (30.48 ± 5.08 cm), and tread nosing must be straight leading edges.

(2) Stair landings must be at least twenty inches (50.8 cm) in depth. Where doors or gates open on a stairway, a landing platform must be provided. Door swing must not reduce the effective standing area on the landing to less than eighteen inches (45.72 cm) in depth.

(3) Fixed stairs having four or more risers must have stair railings or handrails complying with WAC 296-56-60123(3).

(4) The railing height from tread surface at the riser face must be 33 plus or minus 3 inches (83.82 cm plus or minus 7.62 cm).

(5) For restricted areas, when physical features require stairs steeper than those provided for by (1) of this subsection, stairs at angles of fifty degrees to seventy-five degrees from the horizontal may be used if they:

(a) Are capable of supporting a single concentrated load of two hundred pounds (890 N) at the tread centers;

(b) Have open treads at least four inches (10.16 cm) in depth and eighteen inches (45.72 cm) in width with a uniformly spaced vertical rise between treads of six to nine and one-half inches (15.24 to 24.13 cm); and

(c) Have handrails that meet the requirements of WAC 296-56-60123(3) on both sides that are not less than thirty inches (76.2 cm) in height from the tread surface at the riser face.

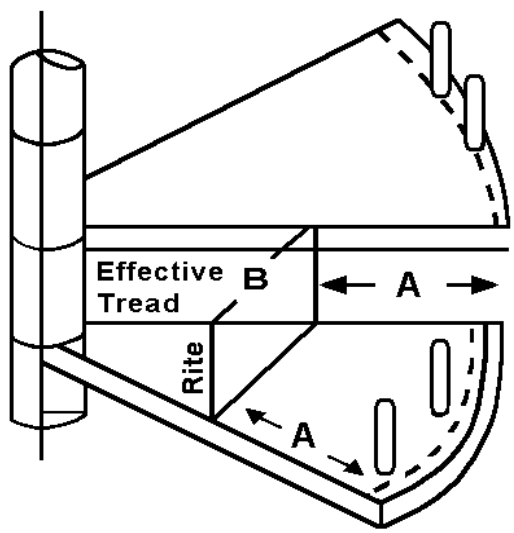
(6) You must maintain fixed stairways in safe condition and must not be obstructed.

WAC 296-56-60217 Spiral stairways.

(1) You must meet the following requirements for spiral stairways:

(a) Stairways must conform to the minimum dimensions of Figure F-1;

Figure F-1



Spiral Stairway-Minimum Dimensions		
	A (Half-Thread Width)	***B***
Normal use by employees	11 inches (27.9 cm)	6 inches (15.2 cm)
Limited Access	9 inches (22.9 cm)	5 inches (12.7 cm)

(b) Stairway risers must be uniform and shall range from six and one-half to ten and one-half inches (16.5 to 26.67 cm) in height;

(c) Minimum loading capability must be one hundred pounds per square foot (445 N), and minimum tread center concentrated loading shall be three hundred pounds (1334 N);

(d) Railing must conform to the requirements of WAC 296-56-60123(3). If balusters are used, there must be a minimum of one per tread. Handrails must be a minimum of one and one-fourth inches (3.18 cm) in outside diameter; and

(e) Vertical clearance must be at least six feet, six inches (1.98 m) above the top step.

(2) You must maintain spiral stairways in safe condition.

WAC 296-56-60219 Employee exits.

(1) You must clearly mark employee exits.

(2) You must post directional signs indicating routes to the exit if an employee exit is not visible from employees' work stations.

(3) You must make sure exits are readily accessible and sufficient in number to provide employees with a convenient means of escape in emergencies. A clear passage to the exit shall be maintained.

(4) You must make sure the minimum width of any employee exit is twenty-eight inches (71.12 cm).

(5) You must clearly mark and keep all fire exits and aisleways of all docks and warehouses. All main aisleways must be wide enough to permit passage of a fire truck.

(6) You must maintain a twenty-eight inch clearance maintained where employees use a passageway to an exit.

(7) You must provide every building, structure or crane, new or old, with an emergency means of egress to permit the prompt escape of occupants in case of fire or other emergency, at all locations with a vertical height of thirty feet or more. Cranes, buildings, or structures erected prior to January 1, 1985, must comply with the provisions of this standard by July 1, 1986.

WAC 296-56-60221 Illumination.

You must light all areas to meet the requirements of this code.

(1) You must light active work areas in such a manner that the general area being worked will be illuminated at a minimum intensity of approximately five foot candles measured thirty inches above the dock floor. Supplemental lighting must be utilized where more than the minimum intensity is necessary for safe operation.

(a) The lighting intensity must be measured at the task/working surface in the plane in which the task/working surface is present.

(b) Light must, so far as possible, be placed so that they will not shine in the eyes of employees.

(2) You must maintain a minimum of three foot candles illumination measured in the manner described above at all points along the bull rail.

(3) You must make sure the quality of light is such that it is reasonably free from glare, and has correct direction, diffusion, and distribution.

(4) You must make sure that lighting shall not be obstructed by any placement of cargo, structures or other objects which might create a shadow in the work area. Portable lighting must be provided in those areas that do not meet the minimum requirements of this subsection.

(5) You must meet the requirements for portable illumination:

(a) All walking and working areas must be illuminated.

(b) Portable lights must meet the following requirements:

(i) Portable lights must be equipped with reflectors and guards to prevent flammable and other material from coming in contact with the bulb, except that guards are not required where the construction of the reflector is such that the bulb is recessed.

(ii) Portable lights must be equipped with heavy duty electric cords. They may be suspended by such cords only when the means of attachment of the cord to the light is such as to prevent the light from being suspended by the electrical connections.

(iii) All connections and insulation must be maintained.

(iv) Lighting wires and fixtures for portable lights must be so arranged as to be free from contact with drafts, running gear, or other moving equipment.

WAC 296-56-60223 Passage between levels and across openings.

(1) You must provide safe means of passage between different surface levels and across openings.

(2) You must meet the following requirements for dockboards (car and bridge plates):

(a) Dockboards must be strong enough to support the loads imposed on them.

(b) Portable dockboards must be anchored in position or be equipped with devices to prevent their movement.

(c) Hand holds or other effective means must be provided on portable dockboards to permit safe handling.

(d) Positive means must be used to prevent railcars or highway vehicles from being moved while dockboards or bridge plates are in position.

(3) You must meet the following requirements for ramps:

(a) Ramps must be strong enough to support the loads imposed on them, provided with sideboards, properly secured and well maintained.

(b) Ramps must be equipped with guardrails meeting the requirements of WAC 296-56-60123(3) if the slope is more than twenty degrees to the horizontal or if employees could fall more than four feet (1.22 m).

(c) Ramps must have slip-resistant surfaces.

(d) When necessary to prevent displacement by vehicle wheels, steel plates or similar devices, used to temporarily bridge or cover uneven surfaces or tracks, must be anchored.

WAC 296-56-60225 Guarding temporary hazards.

You must guard ditches, pits, excavations, and surfaces in poor repair by readily visible barricades, rails or other equally effective means.

WAC 296-56-60227 River banks.

(1) This section applies to temporary installations or temporary operations near a river bank.

(2) You must ensure that the outer perimeter of the working surface is protected by posting or other portable protection such as roping off, and that the employees wear a personal flotation device meeting the requirements of WAC 296-56-60115(2), where working surfaces at river banks slope so steeply that an employee could slip or fall into the water.

WAC 296-56-60229 Sanitation.

(1) You must meet the following requirements for washing and toilet facilities:

(a) You must provide accessible washing and toilet facilities sufficient for the sanitary requirements of employees. The facilities must have:

(i) Running water, including hot and cold or tepid water (when cargo handling is conducted at locations without permanent facilities, containers of potable water may be provided in lieu of running water);

(ii) Soap;

(iii) Individual hand towels, clean individual sections of continuous toweling or air blowers; and

(iv) Fixed or portable toilets in separate compartments with latch-equipped doors.

(b) Separate toilet facilities must be provided for male and female employees except when toilet rooms are occupied by only one person at a time. A means of locking must be provided.

(c) Washing and toilet facilities must be regularly cleaned and maintained in good order.

(2) You must meet the following requirements for drinking water:

(a) Potable drinking water shall be accessible to employees at all times.

(b) Potable drinking water containers must be clean, containing only water and ice, and must be fitted with covers.

(c) Common drinking cups are prohibited.

(3) You must prohibit consumption of food or beverages in areas where hazardous materials are being stored or handled.

(4) You must prohibit work from being conducted in the immediate vicinity of uncovered garbage or in the area of overboard discharges from the vessel's sanitary lines unless employees are protected from the garbage or discharge by a baffle or splash boards.

WAC 296-56-60231 Signs and marking.

(1) You must make sure signs required by this chapter are clearly worded and legible. They must contain a key word or legend indicating the reason for the sign.

(a) Key words are such words as danger, warning, caution.

(b) Legends are more specific explanations such as high voltage, close clearance, pedestrian crossing.

(2) You must make sure every marine terminal has conspicuously posted signs as follows:

(a) Locations of first-aid facilities;

(b) Locations of telephones;

(c) Telephone numbers of the closest ambulance service, hospital or other source of medical attention, police, fire department, and emergency squad (if any); and

(d) Locations of firefighting and emergency equipment and fire exits.

WAC 296-56-60232 Related terminal operations and equipment.

Summary

This section applies to all related terminal operations and equipment in your workplace.

Your responsibility: To protect employees from terminal operations related to hazards in your workplace.

You must meet the requirements…	*in this section*
Related terminal operations and equipment – Machine guarding	WAC 296-56-60233
Welding, cutting and heating (hot work) (see also definition of "hazardous cargo, material substance or atmosphere")	WAC 296-56-60235
Spray painting	WAC 296-56-60237
Compressed air	WAC 296-56-60239
Air receivers	WAC 296-56-60241
Fuel handling and storage	WAC 296-56-60243
Battery charging and changing	WAC 296-56-60245
Prohibited operations	WAC 296-56-60247
Petroleum docks	WAC 296-56-60249
Boat marinas	WAC 296-56-60251
Canneries and cold storage docks	WAC 296-56-60253
Excerpts from Revised Code of Washington	WAC 296-56-60255
Form-Appendix A-Standard signals for longshore crane signals	WAC 296-56-99002
Form-Appendix B-Standard signals for longshore crane signals	WAC 296-56-99003

WAC 296-56-60233 Related terminal operations and equipment-Machine guarding.

(1) You must meet the following general requirements for machine guarding:

(a) Danger zones on machines and equipment used by employees must be guarded.

(b) Where chips and dust produced by machine operation may result in a hazard to the operator, the machinery must be equipped with an effective exhaust system at the point of origin, or other equally effective means must be provided to protect the operator.

(c) Fixed machinery must be secured to prevent shifting.

(d) A power cut-off device for machinery and equipment must be provided at the operator's working position.

(e) Machines driven by belts and shafting must be fitted with a belt-locking or equivalent protective device if the belt can be shifted.

(f) In operations where injury to the operator might result if motors were to restart after power failures, provisions must be made to prevent machines from automatically restarting upon restoration of power.

(g) The power supply to machines must be turned off, locked out, and tagged out during repair, adjustment, or servicing.

(h) Machines must be maintained in a safe working condition.

(i) Only designated employees must maintain or repair machinery and equipment.

(j) Machines with defects that affect the safety of operation must not be used.

(2) You must guard hand-fed circular ripsaws and hand-fed circular crosscut table saws as follows unless fixed or manually adjustable enclosures or guarding provides equivalent protection:

(a) Equipped with hoods completely enclosing those portions of the saw above the table and the material being cut;

(b) Have spreaders to prevent material from squeezing the saw. Spreaders must be in true alignment with the saw. Spreaders may be removed only during grooving, dadoing, or rabbeting operations, and must be replaced at the completion of such operations; and

(c) Have nonkickback fingers or dogs to oppose the tendency of the saw to pick up material or throw material toward the operator.

(3) You must guard swing cutoff saws as follows:

(a) Swing cutoff saws must have hoods completely enclosing the upper half of the saw, the arbor end and the point of operation at all saw positions to protect the operator from material thrown up by the saw. The hood must automatically cover the lower portion of the blade so that when the saw returns to the back of the table the hood rises on top of the fence, and when the saw is moved forward the hood drops on top, remaining in contact with the table or the material.

(b) Swing cutoff saws must have a device to return the saw automatically to the back of the table without rebound. The device must not be dependent upon rope, cord or springs.

(c) Devices must be provided to prevent saws from swinging beyond the front or back edges of the table.

(d) Inverted swing cutoff saws must have hoods covering the part of the saw protruding above the table top or the material being cut. Hoods must automatically adjust to the thickness of, and remain in contact with, material being cut.

(4) You must guard radial saws as follows, unless fixed or manually adjustable enclosures or guards provide equivalent protection:

(a) The upper hood of radial saws must enclose the upper portion of the blade up to and including the end of the saw arbor and must protect the operator from being struck by debris. The sides of the lower exposed portion of the blade must be guarded to the blade diameter by a device automatically adjusting to the thickness of the stock and remaining in contact with the stock. The lower guard may be removed only when the saw is used for bevel cuts;

(b) Radial saws used for ripping must have nonkickback fingers or dogs on both sides to oppose the thrust or tendency of the saw to pick up material or throw material toward the operator;

(c) An adjustable stop must be provided to prevent travel of radial saw blades beyond the table's edge;

(d) Radial saws must be installed so that the cutting head returns to the starting position without rebound when released; and

(e) You must direct that employees perform ripping and ploughing against the saw turning direction. Rotation direction and an indication of the end of the saw to be used must be conspicuously marked on the hood.

(5) You must guard band saws and band resaws as follows:

(a) Saw blades and band saw wheels must be enclosed or guarded, except for the working portion of the blade between the bottom of the guide rolls and the table, to protect employees from point-of-operation hazards and flying debris.

(b) Band saws must be equipped with brakes to stop the band saw wheel if the blade breaks.

(c) Band saws must be equipped with a tension control device to keep the blade taut.

(6) You must guard abrasive wheels and machinery as follows:

(a) Abrasive wheels must be used only on machines having enclosure guards to restrain pieces of grinding wheels and to protect employees if the wheel breaks, except as provided in (b) and (c) of this subsection. Where the operator stands in front of the safety guard opening, the safety guard must be adjustable or have an adjustable tongue or piece at the top of the opening. The safety guard or the tongue must be adjusted so that it is always within one-fourth inch of the periphery of the wheel. Guards must be aligned with the wheel and the strength of fastenings must be greater than the strength of the guard.

(b) When the work provides equivalent protection, or when the machine is designed as a portable saw, guards may be constructed with the spindle end, nut and outer flange exposed. When the work entirely covers the side of the wheel, the side covers of the guard may be removed.

(c) Guarding is not required:

(i) For wheels used for internal work while the wheel is contained within the work being ground; or

(ii) For mounted wheels two inches (5 cm) and smaller in diameter used in portable operations.

(d) Work rests must be used on fixed grinding machines. Work rests must be rigidly constructed and adjustable for wheel wear. They must be adjusted closely to the wheel with a maximum opening of one-eighth inch (3.18 mm) and must be securely clamped. Adjustment must not be made while the wheel is in motion.

(e) Grinding wheels must fit freely on the spindle. The spindle nut must be tightened only enough to hold the wheel in place.

(f) Grinding machine wheels must turn at a speed that is compatible with the rated speed of the wheel.

(g) Flanges and blotters must be used only with wheels designed for their use. Flanges must be of a type ensuring retention of pieces of the wheel in case of breakage.

(h) Abrasive wheels with operational defects must not be used.

(7) You must guard rotating parts, drives and connections as follows:

(a) Rotating parts, much as gears and pulleys, that are located seven feet (2.13 m) or less above working surfaces must be guarded to prevent employee contact with moving parts.

(b) Belt, rope and chain drives must be guarded to prevent employees from coming into contact with moving parts.

(c) Gears, sprockets and chains must be guarded to prevent employees coming into contact with moving parts. This requirement does not apply to manually operated sprockets.

WAC 296-56-60235 Welding, cutting and heating (hot work) see also definition of "hazardous cargo, material, substance or atmosphere".

(1) You must make sure hot work in not performed in confined spaces until all requirements of chapter 296-809 WAC, are met.

(2) You must provide fire protection for employees performing hot work as follows:

(a) To the extent possible, hot work must be performed in designated locations that are free of fire hazards.

(b) When hot work must be performed in a location that is not free of fire hazards, all necessary precautions must be taken to confine heat, sparks, and slag so that they cannot contact flammable or combustible material.

(c) Fire extinguishing equipment suitable for the location must be immediately available and must be maintained in readiness for use at all times.

(d) When the hot work operation is such that normal fire prevention precautions are not sufficient, additional personnel must be assigned to guard against fire during hot work and for a sufficient time after completion of the work to ensure that no fire hazard remains. The employer must instruct all employees involved in hot work operations as to potential fire hazards and the use of firefighting equipment.

(e) Drums and containers which contain or have contained flammable liquids must be kept closed. Empty containers must be removed from the hot work area.

(f) When openings or cracks in flooring cannot be closed, precautions must be taken to ensure that no employees or flammable or combustible materials are exposed to sparks dropping through the floor. Similar precautions must be taken regarding cracks or holes in walls, open doorways and open or broken windows.

(g) Hot work must not be performed:

(i) In flammable or potentially flammable atmospheres;

(ii) On or in equipment or tanks that have contained flammable gas or liquid or combustible liquid or dust-producing material, until a designated person has tested the atmosphere inside the equipment or tanks and determined that it is not hazardous; or

(iii) Near any area in which exposed readily ignitable materials such as bulk sulphur, baled paper or cotton are stored. Bulk sulphur is excluded from this prohibition if suitable precautions are followed, the person in charge is knowledgeable and the person performing the work has been instructed in preventing and extinguishing sulphur fires.

(h) Drums, containers or hollow structures that have contained flammable or combustible substances must either be filled with water or cleaned, and must then be ventilated.

(i) A designated person must test the atmosphere and determine that it is not hazardous before hot work is performed on or in such structures.

(ii) Before heat is applied to a drum, container or hollow structure, an opening to release built-up pressure during heat application must be provided.

(3) You must follow these requirements for gas welding and cutting:

(a) Compressed gas cylinders must be used only as follows:

(i) Must have valve protection caps in place except when in use, hooked up or secured for movement. Oil must not be used to lubricate caps;

(ii) Must be hoisted only while secured, as on a cradle or pallet, and must not be hoisted by magnet, choker sling or cylinder caps;

(iii) Must be moved only by tilting or rolling on their bottom edges;

(iv) Must be secured when moved by vehicle;

(v) Must be secured while in use;

(vi) Must have valves closed when cylinders are empty, being moved or stored;

(vii) Must be secured upright except when hoisted or carried;

(viii) Must not be freed when frozen by prying the valves or caps with bars or by hitting the valve with a tool;

(ix) Must not be thawed by boiling water;

(x) Must not be exposed to sparks, hot slag, or flame;

(xi) Must not be permitted to become part of electrical circuits or have electrodes struck against them to strike arcs;

(xii) Must not be used as rollers or supports;

(xiii) Must not have contents used for purposes not authorized by the supplier;

(xiv) Must not be used if damaged or defective;

(xv) Must not have gases mixed within, except by gas suppliers;

(xvi) Must be stored so that oxygen cylinders are separated from fuel gas cylinders and combustible materials by either a minimum distance of twenty feet (6 m) or a barrier having a fire-resistance rating of thirty minutes; and

(xvii) Must not have objects that might either damage the safety device or obstruct the valve placed on top of the cylinder when in use.

(b) Fuel gas must be used only as follows:

(i) Before regulators are connected to cylinder valves, the valves must be opened slightly (cracked) and closed immediately to clear away dust or dirt. Valves must not be cracked if gas could reach possible sources of ignition;

(ii) Cylinder valves must be opened slowly to prevent regulator damage and must not be opened more than one and one-half turns. Any special wrench required for emergency closing must be positioned on the valve stem during cylinder use. For manifolded or coupled cylinders, at least one wrench must be immediately available. Nothing must be placed on top of a cylinder or associated parts when the cylinder is in use;

(iii) Pressure-reducing regulators must be attached to cylinder valves when cylinders are supplying torches or devices equipped with shut-off valves;

(iv) Cylinder valves must be closed and gas released from the regulator or manifold before regulators are removed;

(v) Leaking fuel gas cylinder valves must be closed and the gland nut tightened. If the leak continues, the cylinder must be tagged, removed from service, and moved to a location where the leak will not be hazardous. If a regulator attached to a valve stops a leak, the cylinder need not be removed from the workplace but must be tagged and may not be used again before it is repaired; and

(vi) If a plug or safety device leaks, the cylinder must be tagged, removed from service, and moved to a location where the leak will not be hazardous.

(c) Hose must be used only as follows:

(i) Fuel gas and oxygen hoses must be easily distinguishable from each other by color or sense of touch. Oxygen and fuel hoses must not be interchangeable. Hoses having more than one gas passage must not be used.

(ii) When oxygen and fuel gas hoses are taped together, not more than four of each twelve inches (10.16 cm of each 30.48 cm) must be taped.

(iii) Hose must be inspected before use. Hose subjected to flashback or showing evidence of severe wear or damage must be tested to twice the normal working pressure but not less than two hundred p.s.i. (1378.96 kPa) before re-use. Defective hose must not be used.

(iv) Hose couplings must not unlock or disconnect without rotary motion.

(v) Hose connections must be clamped or securely fastened to withstand twice the normal working pressure but not less than three hundred p.s.i. (2068.44 kPa) without leaking.

(vi) Gas hose storage boxes must be ventilated.

(d) Torches must be used only as follows:

(i) Torch tip openings must only be cleaned with devices designed for that purpose.

(ii) Torches must be inspected before each use for leaking shut-off valves, hose couplings and tip connections. Torches must be inspected before each use for leaking shut-off valves, hose couplings and tip connections. Torches with such defects must not be used.

(iii) Torches must not be lighted from matches, cigarette lighters, other flames or hot work.

(e) Pressure regulators, including associated gauges, must be maintained in safe working order.

(f) Gas welding equipment must be maintained free of oil and grease.

(4) You must meet the following requirements for arc welding and cutting:

(a) Manual electrode holders must be used as follows:

(i) You must ensure that only manual electrode holders intended for arc welding and cutting and capable of handling the maximum current required for such welding or cutting must be used.

(ii) Current-carrying parts passing through those portions of the holder gripped by the user and through the outer surfaces of the jaws of the holder must be insulated against the maximum voltage to ground.

(b) Welding cables and connectors must be used as follow:.

(i) Arc welding and cutting cables must be insulated, flexible and capable of handling the maximum current required by the operation, taking into account the duty cycles.

(ii) Only cable free from repair or splice for ten feet (3 m) from the electrode holder must be used unless insulated connectors or splices with insulating quality equal to that of the cable are provided.

(iii) When a cable other than the lead mentioned in (b)(ii) of this subsection wears and exposes bare conductors, the portion exposed must not be used until it is protected by insulation equivalent in performance capacity to the original.

(iv) Insulated connectors of equivalent capacity must be used for connecting or splicing cable. Cable lugs, where used as connectors, must provide electrical contact. Exposed metal parts must be insulated.

(c) Ground returns and machine grounding must be used as follows:

(i) Ground return cables must have current-carrying capacity equal to or exceeding the total maximum output capacities of the welding or cutting units served.

(ii) Structures or pipelines, other than those containing gases or flammable liquids or conduits containing electrical circuits, may be used in the ground return circuit if their current-carrying capacity equals or exceeds the total maximum output capacities of the welding or cutting units served.

(iii) Structures or pipelines forming a temporary ground return circuit must have electrical contact at all joints. Arcs, sparks or heat at any point in the circuit must cause rejection as a ground circuit.

(iv) Structures or pipelines acting continuously as ground return circuits must have joints bonded and maintained to ensure that no electrolysis or fire hazard exists.

(v) Arc welding and cutting machine frames must be grounded, either through a third wire in the cable containing the circuit conductor or through a separate wire at the source of the current. Grounding circuits must have resistance low enough to permit sufficient current to flow to cause the fuse or circuit breaker to interrupt the current.

(vi) Ground connections must be mechanically and electrically adequate to carry the current.

(d) When electrode holders are left unattended, electrodes must be removed and holders placed to prevent employee injury.

(e) Hot electrode holders must not be dipped in water.

(f) You must ensure that when arc welders or cutters leave or stop work or when machines are moved, the power supply switch is kept in the off position.

(g) Arc welding or cutting equipment having a functional defect must not be used.

(h) Arc welding and cutting operations must be separated from other operations by shields, screens, or curtains to protect employees in the vicinity from the direct rays and sparks of the arc.

(i) Employees in areas not protected from the arc by screening must be protected by appropriate filter lenses in accordance with subsection (8) of this section.

(ii) When welders are exposed to their own arc or to each other's arc, they must wear filter lenses complying with the requirements of subsection (8) of this section.

(i) The control apparatus of arc welding machines must be enclosed, except for operating wheels, levers, and handles.

(j) Input power terminals, top change devices and live metal parts connected to input circuits must be enclosed and accessible only by means of insulated tools.

(k) When arc welding is performed in wet or high-humidity conditions, employees must use additional protection, such as rubber pads or boots, against electric shock.

(5) You must meet the following requirements in ventilation and employee protection in welding, cutting and heating:

(a) You must ensure that general mechanical ventilation or local exhaust systems must meet the following requirements:

(i) General mechanical ventilation must maintain vapors, fumes and smoke below a hazardous level;

(ii) Local exhaust ventilation must consist of movable hoods positioned close to the work and must be of such capacity and arrangement as to keep breathing zone concentrations below hazardous levels;

(iii) Exhausts from working spaces must be discharged into the open air, clear of intake air sources;

(iv) Replacement air must be clean and respirable; and

(v) Oxygen must not be used for ventilation, cooling or cleaning clothing or work areas.

(b) You must ensure that when hot work is performed in a confined space, in addition to the requirements of chapter 296-809 WAC and except as specified in (c)(ii) and (iii) of this subsection, the following requirements for ventilation are met:

(i) General mechanical or local exhaust ventilations must be provided; or

(ii) Employees in the space must wear respirators in accordance with chapter 296-842 WAC.

(c) Requirements for welding, cutting or heating of toxic metals are as follows:

(i) In confined or enclosed spaces, hot work involving the following metals must only be performed with general mechanical or local exhaust ventilation that ensures that employees are not exposed to hazardous levels of fumes:

(A) Lead base metals;

(B) Cadmium-bearing filler materials; and

(C) Chromium-bearing metals or metals coated with chromium-bearing materials.

(ii) In confined or enclosed spaces, hot work involving the following metals must only be performed with local exhaust ventilation meeting the requirements of this subsection or by employees wearing supplied air respirators in accordance with chapter 296-842 WAC;

(A) Zinc-bearing base or filler metals or metals coated with zinc-bearing materials;

(B) Metals containing lead other than as an impurity, or coated with lead-bearing materials;

(C) Cadmium-bearing or cadmium-coated base metals; and

(D) Metals coated with mercury-bearing materials.

(iii) Employees performing hot work in confined or enclosed spaces involving beryllium-containing base or filler metals must be protected by local exhaust ventilation and wear supplied air respirators or self-contained breathing apparatus, in accordance with the requirements of chapter 296-842 WAC.

(iv) You must ensure that employees performing hot work in the open air that involves any of the metals listed in (c)(i) and (ii) of this subsection must be protected by respirators in accordance with the requirements of chapter 296-842 WAC and those working on beryllium-containing base or filler metals must be protected by supplied air respirators, in accordance with the requirements of chapter 296-842 WAC.

(v) Any employee exposed to the same atmosphere as the welder or burner must be protected by the same type of respiratory and other protective equipment as that worn by the welder or burner.

(d) You must make sure employees will not engage in and not be exposed to the inert-gas metal-arc welding process unless the following precautions are taken:

(i) Chlorinated solvents must not be used within two hundred feet (61 m) of the exposed arc. Surfaces prepared with chlorinated solvents must be thoroughly dry before welding is performed on them.

(ii) Employees in areas not protected from the arc by screening must be protected by appropriate filter lenses in accordance with the requirements of subsection (7) of this section. When welders are exposed to their own arc or to each other's arc, filter lenses complying with the requirements of subsection (7) of this section must be worn to protect against flashes and radiant energy.

(iii) Employees exposed to radiation must have their skin covered completely to prevent ultraviolet burns and damage. Helmets and hand shields must not have leaks, openings or highly reflective surfaces.

(iv) Inert-gas metal-arc welding on stainless steel must not be performed unless exposed employees are protected either by local exhaust ventilation or by wearing supplied air respirators in accordance with the requirements of chapter 296-842 WAC.

(6) You must meet these requirements for welding, cutting and heating on preservative coatings:

(a) Before hot work is commenced on surfaces covered by a preservative coating of unknown flammability, a test must be made by a designated person to determine the coating's flammability. Preservative coatings must be considered highly flammable when scrapings burn with extreme rapidity.

(b) Appropriate precaution must be taken to prevent ignition of highly flammable hardened preservative coatings. Highly flammable coatings must be stripped from the area to be heated. An uncoiled fire hose with fog nozzle, under pressure, must be immediately available in the hot work area.

(c) Surfaces covered with preservative coatings must be stripped for at least four inches (10.16 cm) from the area of heat application or employees must be protected by supplied air respirators in accordance with the requirements of chapter 296-842 WAC.

(7) You must protect employees against radiant energy as follows:

(a) Employees must be protected from radiant energy eye hazards by spectacles, cup goggles, helmets, hand shields or face shields with filter lenses complying with the requirements of this subsection.

(b) Filter lenses must have an appropriate shade number, as indicated in Table G-1, for the work performed. Variations of one or two shade numbers are permissible to suit individual preferences.

(c) If filter lenses are used in goggles worn under the helmet, the shade numbers of both lenses equals the value shown in Table G-1 for the operation.

Table G-1-Filter Lenses for Protection Against Radiant Energy	
Operation	**Shade No.**
Soldering	2
Torch Brazing	3 or 4
Light Cutting, up to 1 inch	3 or 4
Medium Cutting, 1-6 inches	4 or 5
Heavy Cutting, Over 6 inches	5 or 6
Light Gas Welding, up to 1/8 inch	4 or 5
Medium Gas Welding, 1/8-1/2 inch	5 or 6
Heavy Gas Welding, Over 1/2 inch	6 or 8
Shielded Metal-Arc Welding 1/16 to 5/32-inch electrodes	10
Inert Gas Metal-Arc Welding (non-ferrous) 1/16 to 5/32-inch electrodes	11
Shielded Metal-Arc Welding 3/16 to 1/4-inch electrodes 5/16 to 3/8-inch electrodes	 12 14

WAC 296-56-60237 Spray painting.

(1) This section covers painting operations connected with maintenance of structures, equipment and gear at the marine terminal and of transient equipment serviced at the terminal. It does not apply to overall painting of terminal structures under construction, major repair or rebuilding of terminal structures, or portable spraying apparatus not used regularly in the same location.

(2) For the purpose of this section, approved means that the equipment has been approved for the specified use by a nationally recognized testing laboratory.

(3) You must meet the following spray painting requirements for indoor and outdoor spraying areas and booths:

(a) Shut-off valves, containers or piping with attached hoses or flexible connections must have shut-off valves closed at the connection when not in use.

(b) Pumps used to transfer paint supplies must have automatic pressure-relieving devices.

(c) Hoses and couplings must be inspected before use. Hoses showing deterioration, leakage or weakness in the carcass or at the couplings must be removed from service.

(d) No open flame or spark-producing equipment must be within twenty feet (6.1 m) of a spraying area unless it is separated from the spraying area by a fire-retardant partition.

(i) Hot surfaces must not be located in spraying areas.

(ii) Whenever combustible residues may accumulate on electrical installations, wiring must be in rigid conduit or in boxes containing no taps, splices or connections.

(iii) Portable electric lights must not be used during spraying operations. Lights used during cleaning or repairing operations must be approved for the location in which they are used.

(e) When flammable or combustible liquids are being transferred between containers, both containers must be bonded and grounded.

(f) Spraying must be performed only in designated spray booths or spraying areas.

(i) Spraying areas must be kept as free from combustible residue accumulations as practical.

(ii) Residue scrapings, debris, rags, and waste must be removed from the spraying area as they accumulate.

(g) Spraying with organic peroxides and other dual-component coatings must only be conducted in sprinkler-equipped spray booths.

(h) Only the quantity of flammable or combustible liquids required for the operation must be allowed in the spraying area, and in no case must the amount exceed a one-day supply.

(i) Smoking must be prohibited and “No Smoking” signs must be posted in spraying and paint storage areas.

(4) You must meet these additional requirements for spraying areas and spray booths:

(a) Distribution or baffle plates must be of noncombustible material and must be removable or accessible for cleaning. They must not be located in exhaust ducts.

(b) Any discarded filter must be removed from the work area or placed in water.

(c) Filters must not be used when the material being sprayed is highly susceptible to spontaneous heating and ignition.

(d) Filters must be noncombustible or of an approved type. The same filter must not be used when spraying with different coating materials if the combination of materials may spontaneously ignite.

(e) Spraying areas must be mechanically ventilated for removal of flammable and combustible vapor and mist.

(f) Mechanical ventilation must be in operation during spraying operations and long enough thereafter to exhaust hazardous vapor concentrations.

(g) Rotating fan elements must be nonsparking or the casing must consist of or be lined with nonsparking material.

(h) Piping systems conveying flammable or combustible liquids to the spraying booth or area must be made of metal and be both electrically bonded and grounded.

(i) Air exhausted from spray operations must not contaminate makeup air or other ventilation intakes. Exhausted air must not be recirculated unless it is first cleaned of any hazardous contaminants.

(j) Original closed containers, approved portable tanks, approved safety cans or a piping system must be used to bring flammable or combustible liquids into spraying areas.

(k) If flammable or combustible liquids are supplied to spray nozzles by positive displacement pumps, the pump discharge line must have a relief valve discharging either to a pump section or detached location, or the line must be equipped with a device to stop the prime mover when discharge pressure exceeds the system's safe operating pressure.

(l) Wiring, motors and equipment in a spray booth must be of approved explosion-proof type for Class I, Group D locations and conform with the requirements of chapter 296-24 WAC Part L for Class I, Division 1, Hazardous Locations. Wiring, motors and equipment within twenty feet (6.1 m) of any interior spraying area and not separated by vapor-tight partitions must not produce sparks during operation and must conform to the requirements of chapter 296-24 WAC Part L for Class I, Division 2, Hazardous Locations.

(m) Outside electrical lights within ten feet (3.05 m) of spraying areas and not separated from the areas by partitions must be enclosed and protected from damage.

(5) You must meet these additional requirements for spray booths:

(a) Spray booths must be substantially constructed of noncombustible material and have smooth interior surfaces. Spray booth floors must be covered with noncombustible material. As an aid to cleaning, paper may be used to cover the floor during painting operations if it is removed after the painting is completed.

(b) Spray booths must be separated from other operations by at least 3 feet (0.91 m) or by fire-retardant partitions or walls.

(c) A space of at least 3 feet (0.91 m) on all sides of the spray booth must be maintained free of storage or combustible materials.

(d) Metal parts of spray booths, exhaust ducts, pipings, airless high-pressure spray guns and conductive objects being sprayed must be grounded.

(e) Electric motors driving exhaust fans must not be located inside booths or ducts.

(f) Belts must not enter ducts or booths unless the belts are completely enclosed.

(g) Exhaust ducts must be made of steel, must have sufficient access doors to permit cleaning, and must have a minimum clearance of 18 inches (0.46 m) from combustible materials. Any installed dampers must be fully opened when the ventilating system is operating.

(h) Spray booths must not be alternately used to spray different types of coating materials if the combination of the materials may spontaneously ignite unless deposits of the first material are removed from the booth and from exhaust ducts before spraying of the second material begins.

WAC 296-56-60239 Compressed air.

You must make sure employees are protected by appropriate eye protection and personal protective equipment complying with the requirements of WAC 296-56-60109 through 296-56-60115 during cleaning with compressed air. Compressed air used for cleaning must not exceed a pressure of thirty p.s.i. Compressed air must not be used to clean employees.

WAC 296-56-60241 Air receivers.

(1) This section applies to compressed air receivers and equipment used for operations such as cleaning, drilling, hoisting and chipping. It does not apply to equipment used to convey materials or in transportation applications such as railways, vehicles or cranes.

(2) You must meet the following requirements for gauges and valves:

(a) Air receivers must be equipped with indicating pressure gauges and spring-loaded safety valves. Safety valves must prevent receiver pressure from exceeding one hundred ten percent of the maximum allowable working pressure.

(b) No other valves must be placed between air receivers and their safety valves.

WAC 296-56-60243 Fuel handling and storage.

(1) You must meet the following requirements for liquid fuel:

(a) Only designated persons must conduct fueling operations.

(b) In case of spillage, filler caps must be replaced and spillage disposed of before engines are started.

(c) Engines must be stopped and operators must not be on the equipment during refueling operations.

(d) Smoking and open flames must be prohibited in areas used for fueling, fuel storage or enclosed storage of equipment containing fuel.

(e) Equipment must be refueled only at designated locations.

(f) Liquid fuels not handled by pump must be handled and transported only in portable containers designed for that purpose. Portable containers must be metal, have tight closures with screw or spring covers and must be equipped with spouts or other means to allow pouring without spilling. Leaking containers must not be used.

(g) Flammable liquids must only be dispensed in the open from a tank or from other vehicles equipped for delivering fuel to another vehicle if:

(i) Dispensing hoses do not exceed fifty feet (15.24 m) in length; and

(ii) Any powered dispensing nozzles are of the automatic-closing type.

(h) Liquid fuel dispensing devices must be provided with an easily accessible and clearly identified shut-off device, such as a switch or circuit breaker, to shut off the power in an emergency.

(i) Liquid fuel dispensing devices, such as pumps, must be mounted either on a concrete island or be otherwise protected against collision damage.

(2) You must meet the following requirements for liquefied gas fuels: See WAC 296-24-475 through 296-24-47517.

(a) Fueling locations.

(i) Liquefied gas powered equipment must be fueled only at designated locations.

(ii) Equipment with permanently mounted fuel containers must be charged outdoors.

(iii) Equipment must not be fueled or stored near underground entrances, elevator shafts or other places where gas or fumes might accumulate.

(b) Fuel containers.

(i) When removable fuel containers are used, the escape of fuel when containers are exchanged must be minimized by:

(A) Automatic quick-closing couplings (closing in both directions when uncoupled) in fuel lines; or

(B) Closing fuel container valves and allowing engines to run until residual fuel is exhausted.

(ii) Pressure-relief valve openings must be in continuous contact with the vapor space (top) of the cylinder.

(iii) Fuel containers must be secured to prevent their being jarred loose, slipping or rotating.

(iv) Containers must be located to prevent damage to the container. If located within a compartment, that compartment must be vented. Containers near the engine or exhaust system must be shielded against direct heat radiation.

(v) Container installation must provide the container with at least the vehicle's road clearance under maximum spring deflection, measured from the bottom of the container or to the lowest fitting on the container or housing, whichever is lower.

(vi) Valves and connections must be protected from contact damage. Permanent protection must be provided for fittings on removable containers.

(vii) Defective containers must be removed from service.

(c) Fueling operations: See WAC 296-24-47517.

(i) Fueling operations for liquefied gas fuels must also comply with the requirements of subsection (1) of this section.

(ii) Using matches or flames to check for leaks is prohibited.

(iii) Containers must be examined before recharging and again before reuse for the following:

(A) Dents, scrapes and gouges of pressure vessels;

(B) Damage to valves and liquid level gauges;

(C) Debris in relief valves;

(D) Leakage at valves or connections; and

(E) Deterioration or loss of flexible seals in filling or servicing connections.

(d) Fuel storage: See WAC 296-24-47517(6).

(i) Stored fuel containers must be located to minimize exposure to excessive temperatures and physical damage.

(ii) Containers must not be stored near exits, stairways or areas normally used or intended for egress.

(iii) Outlet valves of containers in storage or transport must be closed. Relief valves must connect with vapor spaces.

(e) Vehicle storage and servicing.

(i) Liquefied gas fueled vehicles may be stored or serviced inside garages or shops only if there are no fuel system leaks.

(ii) Liquefied gas fueled vehicles under repair must have container shut-off valves closed unless engine operation is necessary for repairs.

(iii) Liquefied gas fueled vehicles must not be parked near open flames, sources of ignition or unventilated open pits.

WAC 296-56-60245 Battery charging and changing.

(1) You must make sure only designated persons change or charge batteries.

(2) You must make sure battery charging and changing is only performed only in areas you have designated for battery charging and changing..

(3) You must prohibit smoking and other ignition sources in charging areas.

(4) You must make sure filler caps are in place when batteries are being moved.

(5) You must apply parking brakes before batteries are charged or changed.

(6) You must make sure when a jumper battery is connected to a battery in a vehicle, the ground lead must connect to ground away from the vehicle's battery. Ignition, lights and accessories on the vehicle must be turned off before connections are made.

(7) You must make sure batteries are free of corrosion buildup and cap vent holes are open.

(8) You must provide adequate ventilation during charging.

(9) You must provide facilities for flushing the eyes, body and work area with water wherever electrolyte is handled, except when employees are only checking battery electrolyte levels or adding water.

(10) You must use carboy tilters or siphons to handle electrolyte in large containers.

(11) You must insulate or otherwise protect battery handling equipment which could contact battery terminals or cell connectors.

(12) You must make sure metallic objects are not placed on uncovered batteries.

(13) You must make sure vent caps are in place when batteries are being charged.

(14) You must turn off chargers when leads are being connected or disconnected.

(15) You must secure installed batteries to avoid physical or electrical contact with compartment walls or components.

WAC 296-56-60247 Prohibited operations.

(1) You must make sure spray painting and abrasive blasting operations are not conducted in the vicinity of cargo handling operations.

(2) You must make sure welding and burning operations are not conducted in the vicinity of cargo handling operations unless such hot work is part of the cargo operation.

WAC 296-56-60249 Petroleum docks.

(1) You must equip pipe lines which transport petroleum liquids from or to a wharf with valves on shore, so located as to be readily accessible and not endangered by fire on the wharf.

(2) You must provide drip pans, buckets, or other means that must be used to prevent oil spillage upon wharves during loading, disconnecting and draining hoses. After transfer is completed the contents of drip pans and buckets must be removed and taken to a place of disposal.

(3) You must make sure package goods, freight or ship stores are not swing-loaded or unloaded during the bulk handling of oils or other flammable liquids in such a manner that the swing-loads will endanger the hose.

(4) You must make sure water lights for use at petroleum wharves are a type which does not create a source of ignition.

WAC 296-56-60251 Boat marinas.

(1) You must inspect all hoisting equipment including derricks, cranes, or other devices used for boat launching, handling cargo, or supplies once a month. Records of this inspection must be made available upon request.

(2) Floating docks are not required to have bull rails unless lift trucks or other power driven equipment is used on the dock.

(3) You must post “No smoking” signs in areas where fueling or flammable material is present.

(4) You must store flammable material or petroleum products in a fireproof storage room or shed.

(5) You must clean slippery surfaces and nonslip material must be used if necessary.

WAC 296-56-60253 Canneries and cold storage docks.

(1) You must inspect hoisting equipment used to load or unload cargo or supplies of fishing vessels once a month certified in accordance with the requirements of WAC 296-56-60093. The record of inspection must be made available upon request.

(2) Slippery surfaces must be cleaned and nonslip material must be used if necessary.

WAC 296-56-60255 Excerpts from Revised Code of Washington.

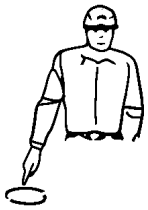
(1) RCW 49.28.100 Hours of operators of power equipment in waterfront operations. It shall be unlawful for any employer to permit any of his employees to operate on docks, in warehouses and/or in or on other waterfront properties any power driven mechanical equipment for the purpose of loading cargo on, or unloading cargo from, ships, barges, or other watercraft, or of assisting in such loading or unloading operations, for a period in excess of twelve and one-half hours at any one time without giving such person an interval of eight hours' rest: Provided, however, The provisions of this section and RCW 49.28.110 shall not be applicable in cases of emergency, including fire, violent storms, leaking or sinking ships or services required by the armed forces of the United States.

(2) RCW 51.28.010 Notice of accident-Notification of worker's rights. Whenever any accident occurs to any worker it must be the duty of such worker or someone in his or her behalf to forthwith report such accident to his or her employer, superintendent or foreman or forewoman in charge of the work, and of the employer to at once report such accident and the injury resulting there from to the department pursuant to RCW 51.28.025, as now or hereafter amended, where the worker has received treatment from a physician, has been hospitalized, disabled from work, or has died as the apparent result of such accident and injury.

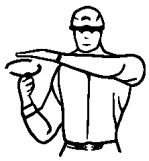
Upon receipt of such notice of accident, the department shall immediately forward to the worker or his or her beneficiaries or dependents notification, in nontechnical language, of their rights under this title.

WAC 296-56-99002 Form-Appendix A-Standard signals for longshore crane signals.

HOIST THE LOAD



LOWER THE LOAD

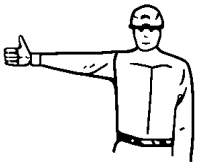


HOIST THE LOAD SLOWLY

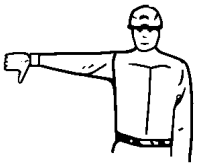
LOWER THE LOAD SLOWLY

USE MAIN HOOK

USE WHIP HOOK



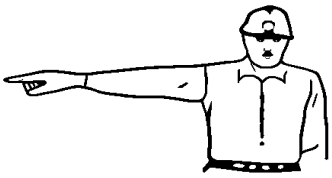
RAISE THE BOOM



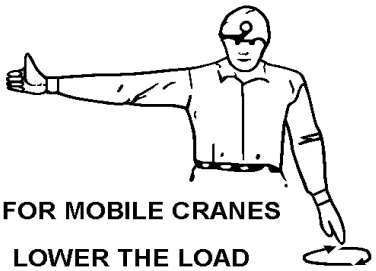
LOWER THE BOOM

WAC 296-56-99003 Form-Appendix B-Standard signals for longshore crane signals.

STOP

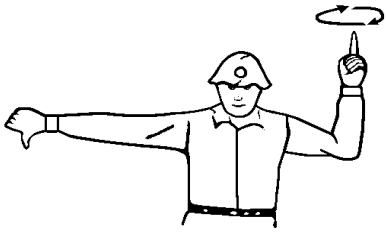


SWING LOAD IN DIRECTION FINGER POINTS



FOR MOBILE CRANES

LOWER THE LOAD AND RAISE THE BOOM



FOR MOBILE CRANES

HOIST THE LOAD AND LOWER THE BOOM

FOR MOBILE CRANES

LOCK THE CRAWLER BELT ON SIDE INDICATED BY RAISED FIST TRAVEL OTHER CRAWLER BELT IN DIRECTION INDICATED BY REVOLVING FIST

FOR MOBILE CRANES

TRAVEL BOTH CRAWLER BELTS IN DIRECTION INDICATED BY REVOLVING FISTS

WAC 296-56-099 Definitions.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-099, filed 12/01/2015, effective 01/05/2016.]

WAC 296-56-600 Marine terminals.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-600, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-600, filed 12/11/84.]

WAC 296-56-60001 Scope and applicability.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 14-07-086 (Order 13-08), § 296-56-60001, filed 03/18/14, effective 05/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-15-144 (Order 09-03), § 296-56-60001, filed 07/21/09, effective 09/01/09. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-56-60001, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 03-11-060 (Order 02-16), § 296-56-60001, filed 05/19/03, effective 08/01/03. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-56-60001, filed 05/09/01, effective 09/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60001, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60001, filed 1/18/95, effective 3/1/95; 93-07-044 (Order 93-01),§ 296-56-60001, filed 3/13/93, effective 4/27/93. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60001, filed 10/30/92, effective 12/8/92. Statutory Authority: Chapter 49.17 RCW. 91-24-017 (Order 91-07), § 296-56-60001, filed 11/22/91, effective 12/24/91; 89-11-035 (Order 89-03), § 296-56-60001, filed 5/15/89, effective 6/30/89; 88-14-108 (Order 88-11), § 296-56-60001, filed 7/6/88. Statutory Authority: RCW 49.17.040 60001, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60001, filed 12/11/84.]

WAC 296-56-60003 Variance and procedure.

[Statutory Authority: RCW 49.17.010, .020, .040, .050, and .060. 07-03-163 (Order 06-30), § 296-56-60003, filed 01/24/07, effective 04/01/07. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-56-60003, filed 05/09/01, effective 09/01/01. Statutory Authority: Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60003, filed 1/18/95, effective 3/1/95. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60003, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60003, filed 12/11/84.]

WAC 296-56-60006 Personnel.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60006, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60006, filed 12/30/98, effective 03/30/99.]

WAC 296-56-60007 Housekeeping.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60007, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60007, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60007, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60007, filed 12/11/84.]

WAC 296-56-60009 Accident prevention program.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60009, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .020, .040, .050, and .060. 07-03-163 (Order 06-30), § 296-56-60009, filed 01/24/07, effective 04/01/07. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-56-60009, filed 05/09/01, effective 09/01/01. Statutory Authority: Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60009, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60009, filed 1/18/95, effective 3/1/95. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60009, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60009, filed 12/11/84.]

WAC 296-56-60010 Emergency action plans.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60010, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .020, .040, .050, and .060. 07-03-163 (Order 06-30), § 296-56-60010, filed 01/24/07, effective 04/01/07.]

WAC 296-56-60010A Waterfront operations.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60010A, filed 12/01/2015, effective 01/05/2016.]

WAC 296-56-60011 Slinging.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60011, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60011, filed 12/30/98, effective 03/30/99. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60011, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60011, filed 12/11/84.]

WAC 296-56-60013 Stacking of cargo and pallets.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60013, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60013, filed 12/11/84.]

WAC 296-56-60015 Coopering.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60015, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60015, filed 12/11/84.]

WAC 296-56-60017 Line handling.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60017, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-15-144 (Order 09-03), § 296-56-60017, filed 07/21/09, effective 09/01/09. Statutory Authority: Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60017, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60017, filed 12/11/84.]

WAC 296-56-60019 Standard gauge railroad operations.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60019, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60019, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60019, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60019, filed 12/11/84.]

WAC 296-56-60021 Signals displayed by each maintenance crew.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60021, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60021, filed 12/11/84.]

WAC 296-56-60023 Warning flags or lights.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60023, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60023, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60023, filed 12/11/84.]

WAC 296-56-60025 Signals unobscured.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60025, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60025, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60025, filed 12/11/84.]

WAC 296-56-60027 Audible warning system.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60027, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60027, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60027, filed 12/11/84.]

WAC 296-56-60029 Safety observer on railroad switching.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60029, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60029, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60029, filed 12/11/84.]

WAC 296-56-60031 Warning at road crossing.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60031, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60031, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60031, filed 12/11/84.]

WAC 296-56-60033 Flying switches.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60033, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60033, filed 12/11/84.]

WAC 296-56-60035 Clearance from railroad tracks.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60035, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60035, filed 12/11/84.]

WAC 296-56-60037 Car plates.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60037, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60037, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60037, filed 12/11/84.]

WAC 296-56-60039 Dockboards (bridge plates).
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60039, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60039, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60039, filed 12/11/84.]

WAC 296-56-60041 Log handling.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60041, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60041, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60041, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60041, filed 12/11/84.]

WAC 296-56-60043 Movement of barges and railcars.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60043, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60043, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60043, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60043, filed 12/11/84.]

WAC 296-56-60045 Communication.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60045, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-10-004 (Order 85-09), § 296-56-60045, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60045, filed 12/11/84.]

WAC 296-56-60047 Open fires.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60045, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60047, filed 12/11/84.]

WAC 296-56-60048 Hazardous atmospheres and materials.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60048, filed 12/01/2015, effective 01/05/2016.

WAC 296-56-60049 Hazardous cargo.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60049, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60049, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60049, filed 12/11/84.]

WAC 296-56-60051 Handling explosives or hazardous materials.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60051, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60051, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60051, filed 12/11/84.]

WAC 296-56-60053 Hazardous atmospheres and substances.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60053, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-56-60053, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.19.010, .040, .050. 99-10 (Order 98-10), § 296-56-60053, filed 05/04/99, effective 09/01/99. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60053, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60053, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60053, filed 12/11/84.]

WAC 296-56-60055 Carbon monoxide.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60055, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60055, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60055, filed 12/11/84.]

WAC 296-56-60057 Fumigants, pesticides, insecticides and hazardous preservatives (see also WAC 296-56-60049, 296-56-60051 and WAC 296-62-60053.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60057, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-56-60057, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60057. filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60057, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60057, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60057, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60057, filed 12/11/84.]

WAC 296-56-60070 Cargo handling gear and equipment.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60070, filed 12/01/2015, effective 01/05/2016.]

WAC 296-56-60071 House falls.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-600271 filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60071, filed 12/11/84.]

WAC 296-56-60073 Miscellaneous auxiliary gear.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60073, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60073, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296.-056-60073,filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60073, filed 1/18/95, effective 3/1/95. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60073, filed 10/30/92, effective 12/8/92. Statutory Authority: Chapter 49.17 RCW. 91-11-070 (Order 91-01), § 296-56-60073, filed 5/20/91, effective 6/20/91. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60073, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60073, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60073, filed 12/11/84.]

WAC 296-56-60075 Cargo boards and other type pallet boards.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60075, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60075, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60075, filed 12/11/84.]

WAC 296-56-60077 Powered industrial trucks.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60077, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-15-144 (Order 09-03), § 296-56-60077, filed 07/21/09, effective 09/01/09. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60077, filed 10/18/00, effective 02/01/01. Statutory Authority: RCW 49.17.010, .040, .050. 00-01-176 (Order 99-18), § 296-56-60077, filed 12/21/99, effective 03/01/2000. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60077, filed 12/30/98, effective 03/30/99. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60077, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60077, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60077, filed 12/11/84.]

WAC 296-56-60079 General rules applicable to vehicles.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60079, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60079, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60079, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60079, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60079, filed 12/11/84.]

WAC 296-56-60081 Multipiece and single-piece rim wheels.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60081, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .020, .040, .050, and .060. 07-03-163 (Order 06-30), § 296-56-60081, filed 01/24/07, effective 04/01/07. Statutory Authority: Chapter 49.17 RCW. 88-14-108 (Order 88-11), § 296-56-60081, filed 7/6/88. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60081, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60081, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60081, filed 12/11/84.]

WAC 296-56-60083 Cranes and derricks.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60083, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60083, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60083, filed 12/30/98, effective 03/30/99.] Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60083, filed 1/18/95, effective 3/1/95. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60083, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60083, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60083, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60083, filed 12/11/84.]

WAC 296-56-60085 Crane load and limit devices.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60085, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60085, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60085, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60085, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60085, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60085, filed 12/11/84.]

WAC 296-56-60087 Winches.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60087, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60087, filed 12/30/98, effective 03/30/99. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60087, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60087, filed 12/11/84.]

WAC 296-56-60089 Conveyors.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60089, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60089, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60089, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60089, filed 12/11/84.]

WAC 296-56-60091 Spouts, chutes, hoppers, bins, and associated equipment.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60091, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60091, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60091, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60091, filed 12/11/84.]

WAC 296-56-60093 Certification of marine terminal material handling devices.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60093, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60093, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60093, filed 1/18/95, effective 3/1/95. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60093, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60093, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60093, filed 12/11/84.]

WAC 296-56-60095 Advisory crane certification panel.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60095, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60095, filed 1/18/95, effective 3/1/95. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60095, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60095, filed 12/11/84.]

WAC 296-56-60097 Unit proof load test and inspection.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60097, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60097, filed 12/30/98, effective 03/30/99.] Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60097, filed 1/18/95, effective 3/1/95. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60097, filed 1/17/86. (Order 84-24), § 296-56-60097, filed 12/11/84.]

WAC 296-56-60098 Examination and inspection of cranes and derricks.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60098, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60098, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60098, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60098, filed 1/18/95, effective 3/1/95. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60098, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60098, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60098, filed 12/11/84.]

WAC 296-56-60099 Hand tools.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60099, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-10-004 (Order 85-09), § 296-56-60099, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60099, filed 12/11/84.]

WAC 296-56-60100 Specialized Terminals.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60100, filed 12/01/2015, effective 01/05/2016.]

WAC 296-56-60101 General.
[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60101, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60101, filed 12/11/84.]

WAC 296-56-60103 Terminals handling intermodal containers or roll-on roll-off operations.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 18-03-159 (Order 17-24), § 296-56-60103, filed 01/23/2018, effective 02/23/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-68103, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-15-144 (Order 09-03), § 296-56-60103, filed 07/21/09, effective 09/01/09. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60103, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040. 99-02-024 (Order 98-16), § 296-56-60103, filed 12/30/98, effective 03/30/99. [Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60103, filed 10/30/92, effective 12/8/92. Statutory Authority: Chapter 49.17 RCW. 89-11-035 (Order 89-03), § 296-56-60103, filed 5/15/89, effective 6/30/89. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60103, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60103, filed 12/11/84.]

WAC 296-56-60105 Grain elevator terminals. Reserved.
[Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60105, filed 12/11/84.]

WAC 296-56-60107 Terminal facilities handling menhaden and similar species of fish.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 18-03-159 (Order 17-24), § 296-56-60107, filed 01/23/2018, effective 02/23/2018. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60107, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-56-60107, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60107, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60107, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 96-56-60107, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60107, filed 12/11/84.]

WAC 296-56-60108 Personal Protection.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60108, filed 12/01/2015, effective 01/05/2016].

WAC 296-56-60109 Eye protection.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60109, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 10-09-088 (Order 10-04), § 296-56-60109, filed 04/20/10, effective 06/01/10. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60109, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60109, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60109, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60109, filed 12/11/84.]

WAC 296-56-60110 Respiratory protection.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-56-60110, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60110, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60110, filed 12/11/84.]

WAC 296-56-60111 Head protection.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60111, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 10-09-088 (Order 10-04), § 296-56-60111, filed 04/20/10, effective 06/01/10. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60111, filed 10/18/00, effective 02/01/01. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60111, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60111, filed 12/11/84.]

WAC 296-56-60113 Foot protection.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60113, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 10-09-088 (Order 10-04), § 296-56-60113, filed 04/20/10, effective 06/01/10. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60113, filed 12/30/98, effective 03/30/99. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60113, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60113, filed 12/11/84.]

WAC 296-56-60115 Other protective measures.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60115, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-15-144 (Order 09-03), § 296-56-60115, filed 07/21/09, effective 09/01/09. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 04-11-066 (Order 04-07, § 296-56-60115, filed 05/13/04, effective 07/01/04. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60115, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60115, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60115, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60115, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60115, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60115, filed 12/11/84.]

WAC 296-56-60116 Payment for protective equipment.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60116, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-05-071 (Order 08-35), § 296-56-60116, filed 02/17/09, effective 04/01/09.]

WAC 296-56-60117 Maintenance and load limits.
[Statutory Authority RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60117, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60117, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60117, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60117, filed 12/11/84.]

WAC 296-56-60119 Protection from falling.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 20-12-091 (Order 19-05) § 296-60119, filed 06/02/2020, effective 10/01/2020. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60119, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60119, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60119, filed 12/11/84.]

WAC 296-56-60121 Minimum safety requirements for docks and dock facilities.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60121, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60121, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60121, filed 12/11/84.]

WAC 296-56-60122 Access to vessels.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60122, filed 12/01/2015, effective 01/05/2016. RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60122, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60122, filed 1/17/86.]

WAC 296-56-60123 Guarding of edges.
[[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 20-12-091 (Order 19-05) § 296-56-60123, filed 06/02/2020, effective 10/01/2020. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60123, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60123, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60123, filed 12/30/98, effective 03/30/99. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60123, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60123, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60123, filed 12/11/84.]

WAC 296-56-60125 Clearance heights.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60125, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60125, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60125, filed 12/11/84.]

WAC 296-56-60127 Cargo doors.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60127, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60127, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60127, filed 12/11/84.]

WAC 296-56-60129 Platforms and skids.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60129, filed 12/01/2015, effective 01/05/2016. RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60129, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60129, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60129, filed 12/11/84.]

WAC 296-56-60131 Elevators and escalators.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60131, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60131, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60131, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60131, filed 12/11/84.]

WAC 296-56-60133 Manlifts.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60133, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60133, filed 10/18/00, effective 02/01/01. Statutory Authority: Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60133, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60133, filed 12/11/84.]

WAC 296-56-60135 Manlifts-Electric.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60135, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60135, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60135, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60135, filed 12/11/84.]

WAC 296-56-60139 Hoistway enclosures and landings.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60139, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60139, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60139, filed 12/11/84.]

WAC 296-56-60141 Scope and application.
[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60141, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60141, filed 12/11/84.]

WAC 296-56-60143 Hoistway gates.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60143, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60143, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60143, filed 12/11/84.]

WAC 296-56-60145 Elevator car.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60145, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60145, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60145, filed 12/11/84.]

WAC 296-56-60147 Elevator doors.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60147, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60147, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60147, filed 12/11/84.]

WAC 296-56-60149 Counterweight, enclosures, and fastenings.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60149, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60149, filed 12/11/84.]

WAC 296-56-60151 Guide rails.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60151, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60151, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60151, filed 12/11/84.]

WAC 296-56-60153 Hoisting ropes.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60153, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60153, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60153, filed 12/11/84.]

WAC 296-56-60155 Space under hoistway.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60155, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60155, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60155, filed 12/11/84.]

WAC 296-56-60157 Car safeties.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60157, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60157, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60157, filed 12/11/84.]

WAC 296-56-60159 Brakes.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60159, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60159, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60159, filed 12/11/84.]

WAC 296-56-60161 Car controls and safety devices.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60161, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60161, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60161, filed 12/11/84.]

WAC 296-56-60167 Hoisting machine mechanisms.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60167, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60167, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60167, filed 12/11/84.]

WAC 296-56-60169 Elevator car and counterweight buffers.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60169, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60169, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60169, filed 12/11/84.]

WAC 296-56-60171 General requirements.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60171, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60171, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60171, filed 12/11/84.]

WAC 296-56-60179 Manlifts-Hand power.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60179, filed 12/01/2015, effective 01/05/2016.]

WAC 296-56-60180 Scope and application.
[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60180, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60180, filed 12/11/84.]

WAC 296-56-60183 Hoistway landings.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60183, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60183, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60183, filed 12/11/84.]

WAC 296-56-60185 Hoistway clearances.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60185, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60185, filed 12/11/84.]

WAC 296-56-60187 Habitable space under hoistways.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60187, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60187, filed 12/11/84.]

WAC 296-56-60189 Hoistway guide rails.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60189, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60189, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60189, filed 12/11/84.]

WAC 296-56-60191 Buffer springs and over travel of car.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60191, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60191, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60191, filed 12/11/84.]

WAC 296-56-60193 Car specifications.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60193, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60193, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60193, filed 12/11/84.]

WAC 296-56-60195 Counterweights.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60195, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60195, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60195, filed 12/11/84.]

WAC 296-56-60197 Sheaves.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60197, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60197, filed 12/11/84.]

WAC 296-56-60199 Hoisting ropes.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60199, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60199, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60199, filed 12/11/84.]

WAC 296-56-60201 Operating rope.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60201, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60201, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60201, filed 12/11/84.]

WAC 296-56-60203 Lighting.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60203, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60203, filed 12/11/84.]

WAC 296-56-60205 Overhead supports.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60205, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60205, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60205, filed 12/11/84.]

WAC 296-56-60207 General requirements.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60207, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 01-11-038 (Order 99-36), § 296-56-60207, filed 05/09/01, effective 09/01/01. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60207, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60207, filed 12/11/84.]

WAC 296-56-60208 Ladders, stairway openings, sanitation, signs, etc.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60208, filed 12/01/2015, effective 01/05/2016.]

WAC 296-56-60209 Fixed ladders.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60209, filed 12/01/2015, effective 01/05/2016. RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60209, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60209, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60209, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60209, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60209, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60209, filed 12/11/84.]

WAC 296-56-60211 Portable ladders.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60211, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60211, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60211, filed 12/30/98, effective 03/30/99. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60211, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60211, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60211, filed 12/11/84.]

WAC 296-56-60213 Jacob's ladders.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60213, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60213, filed 12/11/84.]

WAC 296-56-60215 Fixed stairways.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60215, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60215, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60215, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60215, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60215, filed 12/11/84.]

WAC 296-56-60217 Spiral stairways.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60217, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60217, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17.040 RCW. 99-02-024 (Order 98-16), § 296-56-60217, filed 12/30/98, effective 03/30/99. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60217, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60217, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60217, filed 12/11/84.]

WAC 296-56-60219 Employee exits.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60219, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60219, filed 10/18/00, effective 02/01/01. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60219, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60219, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60219, filed 12/11/84.]

WAC 296-56-60221 Illumination.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60221, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-15-144 (Order 09-03), § 296-56-60221, filed 07/21/09, effective 09/01/09. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60221, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60221, filed 12/11/84.]

WAC 296-56-60223 Passage between levels and across openings.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60223, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60223, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60223, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60223, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60223, filed 12/11/84.]

WAC 296-56-60225 Guarding temporary hazards.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60225, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60225, filed 12/11/84.]

WAC 296-56-60227 River banks.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60227, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-10-004 (Order 85-09), § 296-56-60227, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60227, filed 12/11/84.]

WAC 296-56-60229 Sanitation.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60229, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60229, filed 10/30/92, effective 12/8/92. Statutory Authority: Chapter 49.17 RCW. 91-11-070 (Order 91-01), § 296-56-60229, filed 5/20/91, effective 6/20/91. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60229, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60229, filed 12/11/84.]

WAC 296-56-60231 Signs and marking.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60231, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60231, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60231, filed 12/11/84.]

WAC 296-56-60232 Related terminal operations and equipment.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60231, filed 12/01/2015, effective 01/05/2016.]

WAC 296-56-60233 Related terminal operations and equipment-Machine guarding.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60233, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60233, filed 10/18/00, effective 02/01/01. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60233, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60233, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60233, filed 12/11/84.]

WAC 296-56-60235 Welding, cutting and heating (hot work) see also definition of "hazardous cargo, material, substance or atmosphere."
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60235, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 14-07-086 (Order 13-08), § 296-56-60235, filed 03/18/14, effective 05/01/14. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-15-144 (Order 09-03), § 296-56-60235, filed 07/21/09, effective 09/01/09. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 05-03-093 (Order 04-41), § 296-56-60235, filed 01/18/05, effective 03/01/05. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60235, filed 10/18/00, effective 02/01/01. Statutory Authority: RCW 49.17.010, .040, .050. 99-10 (Order 98-10), § 296-56-60235, filed 05/04/99, effective 09/01/99.] Statutory Authority: Chapter 49.17 RCW. 95-04-007, § 296-56-60235, filed 1/18/95, effective 3/1/95. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60235, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60235, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60235, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60235, filed 12/11/84.]

WAC 296-56-60237 Spray painting.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60237, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60237, filed 10/18/00, effective 02/01/01. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60237, filed 10/30/92, effective 12/8/92. Statutory Authority: Chapter 49.17 RCW. 91-24-017 (Order 91-07), § 296-56-60237, filed 11/22/91, effective 12/24/91. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60237, filed 1/17/86; 85-10-004 (Order 85-09), § 296-56-60237, filed 4/19/85; 85-01-022 (Order 84-24), § 296-56-60237, filed 12/11/84.]

WAC 296-56-60239 Compressed air.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60239, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. 92-22-067 (Order 92-06), § 296-56-60239, filed 10/30/92, effective 12/8/92. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60239, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60239, filed 12/11/84.]

WAC 296-56-60241 Air receivers.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60241, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60241, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60241, filed 12/11/84.]

WAC 296-56-60243 Fuel handling and storage.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60243, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.010, .040, .050, and .060. 04-11-066 (Order 04-07), § 296-56-60243, filed 05/18/04, effective 07/01/04. Statutory Authority: RCW 49.17.010, .040, .050. 00-21-103 (Order 00-16), § 296-56-60243, filed 10/18/00, effective 02/01/01. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60243, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60243, filed 12/11/84.]

WAC 296-56-60245 Battery charging and changing.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60245, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60245, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60245, filed 12/11/84.]

WAC 296-56-60247 Prohibited operations.
[Statutory Authority. RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60247, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60247, filed 12/11/84.]

WAC 296-56-60249 Petroleum docks.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60249, filed 12/01/2015, effective 01/05/2016. Statutory Authority: Chapter 49.17 RCW. 88-14-108 (Order 88-11), § 296-56-60249, filed 7/6/88. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60249, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60249, filed 12/11/84.]

WAC 296-56-60251 Boat marinas.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60251, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60251, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60251, filed 12/11/84.]

WAC 296-56-60253 Canneries and cold storage docks.
[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 15-24-102 (Order 14-18), § 296-56-60253, filed 12/01/2015, effective 01/05/2016. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-60253, filed 1/17/86; 85-01-022 (Order 84-24), § 296-56-60253, filed 12/11/84.]

WAC 296-56-60255 Excerpts from Revised Code of Washington.
Statutory Authority: RCW 49.17.040 and 49.17.050. 85-01-022 (Order 84-24), § 296-56-60255, filed 12/11/84.]

WAC 296-56-99002 Form-Appendix A-Standard signals for longshore crane signals.
[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-99002, filed 1/17/86; Order 74-14, Appendix C (codified as WAC 296-56-99002), filed 4/22/74; Rules (part), filed 9/24/65; Rules (part), filed 3/23/60.]

WAC 296-56-99003 Form-Appendix B-Standard signals for longshore signals.
[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-064 (Order 86-02), § 296-56-99002, filed 1/17/86; Order 74-14, Appendix D (codified as WAC 296-56-99003), filed 4/22/74; Rules (part), filed 9/24/65; Rules (part), filed 3/23/60.]