WAC 296-32-22555 General fall protection. (1) The employer must ensure that all surfaces on which employees will be working or walking on are structurally sound and will support them safely prior to allowing employees to work or walk on them.

(2) Inspection criteria.

(a) All components (including hardware, lanyards, and positioning harnesses or full body harnesses depending on which system is used) of personal fall arrest systems, personal fall restraint systems and positioning device systems must be inspected prior to each use according to manufacturer's specifications for mildew, wear, damage, and other deterioration. Defective components must be removed from service if their function or strength has been adversely affected.

(b) Safety nets must be inspected at least once a week according to manufacturer's specifications for wear, damage, and other deterioration. Safety nets must also be inspected after any occurrence which could affect the integrity of the safety net system. Defective components must be removed from service. Defective nets must not be used.

(3) Personal fall arrest systems, personal fall restraint systems, positioning device systems, and their components must be used only for employee protection and not to hoist materials.

Figure 2
Examples of what personal fall arrest, personal fall restraint and positioning device systems look like:

(4) Fall protection required regardless of height.

(a) Regardless of height, open sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, such as water towers or roof tops and material handling equipment, and similar hazards must be guarded with a standard guardrail system.

(b) Floor holes or floor openings, into which persons can accidentally walk, must be guarded by either a standard railing with standard toe board on all exposed sides, or a cover of standard strength and construction that is secured against accidental displacement. While the cover is not in place, the floor hole opening must be protected by a standard railing.

Note: Requirements for when guarding floor openings at heights of four feet or more are located in subsection (5)(d) of this section.

(c) Regardless of height, employees must be protected from falling into or onto impalement hazards, such as: Reinforcing steel (rebar), or exposed steel or wood stakes used to set forms.

(5) Fall protection required at four feet or more.

(a) The employer must ensure that the appropriate fall protection system is provided, installed, and implemented according to the requirements in this part when employees are exposed to fall hazards of four feet or more to the ground or lower level when on a walking/working surface, towers, poles, or communication structures.

(b) Guarding of walking/working surfaces with unprotected sides and edges. Every open sided walking/working surface or platform four

feet or more above adjacent floor or ground level must be guarded by one of the following fall protection systems.

(i) A standard guardrail system, or the equivalent, as specified in subsection (9)(b) of this section, on all open sides, except where there is entrance to a ramp, stairway, or fixed ladder. The railing must be provided with a standard toe board wherever, beneath the open sides, persons can pass, there is moving machinery, or there is equipment with which falling materials could create a hazard.

(A) When employees are using stilts, the height of the top rail or equivalent member of the standard guardrail system must be increased (or additional railings may be added) an amount equal to the height of the stilts while maintaining the strength specifications of the guardrail system.

(B) Where employees are working on platforms above the protection of the guardrail system, the employer must either increase the height of the guardrail system as specified in (b)(i)(A) of this subsection, or select and implement another fall protection system as specified in (c), (d), (e), (f), or (g) of this subsection.

(C) When guardrails must be temporarily removed to perform a specific task, the area must be constantly attended by a monitor until the guardrail is replaced. The only duty the monitor must perform is to warn persons entering the area of the fall hazard.

(D) Guardrails and toe boards may be omitted on distribution frame mezzanine platforms to permit access to equipment. This exemption applies only on the side or sides of the platform facing the frames and only on those portions of the platform adjacent to equipped frames.

(ii) A fall restraint system;

(iii) A personal fall arrest system;

(iv) A safety net system;

(v) A catch platform; and

(vi) A warning line.

(c) Guarding of ramps, runways, and inclined walkways.

(i) Ramps, runways, and inclined walkways that are four feet or more above the ground or lower level must be equipped with a standard guardrail system or the equivalent, as specified in subsection (9)(b) of this section, along each open side. Wherever tools, machine parts, or materials are likely to be used on the runway, a toe board must also be installed on each open side to protect persons working or passing below.

(ii) Runways used exclusively for special purposes may have the railing on one side omitted where operating conditions necessitate such omission, provided the falling hazard is minimized by using a runway not less than eighteen inches wide.

(d) Guarding of floor openings.

(i) Floor openings must be guarded by one of the following fall restraint systems.

(A) A standard guardrail system, or the equivalent, as specified in subsection (9)(b) of this section, on all open sides, except where there is entrance to a ramp, stairway, or fixed ladder. The railing must be provided with a standard toe board wherever, beneath the open sides, persons can pass, or there is moving machinery, or there is equipment with which falling materials could create a hazard.

(B) A cover, as specified in subsection (9)(c) of this section.

(C) A warning line system erected at least fifteen feet from all unprotected sides or edges of the floor opening and meets the requirements of subsection (9)(d) of this section.

(D) If it becomes necessary to remove the cover, the guardrail system, or the warning line system, then an employee must remain at the opening until the cover, guardrail system, or warning line system is replaced. The only duty the employee must perform is to prevent exposure to the fall hazard by warning persons entering the area of the fall hazard.

(ii) Ladderway floor openings or platforms must be guarded by standard guardrail system with standard toe boards on all exposed sides, except at entrance to opening, with the passage through the railing either provided with a swinging gate or so offset that a person cannot walk directly into the opening.

(iii) Hatchways and chute floor openings must be guarded by one of the following:

(A) Hinged covers of standard strength and construction and a standard guardrail system with only one exposed side. When the opening is not in use, the cover must be closed or the exposed side must be guarded at both top and intermediate positions by removable standard guardrail systems.

(B) A removable standard guardrail system with toe board on not more than two sides of the opening and fixed standard guardrail system with toe boards on all other exposed sides. The removable railing must be kept in place when the opening is not in use and must be hinged or otherwise mounted so as to be conveniently replaceable.

(iv) Wherever there is a danger of falling through an unprotected skylight opening, or the skylight has been installed and is not capable of sustaining the weight of a minimum of eight hundred pounds or the maximum potential load with a safety factor of four, standard guardrails must be provided on all exposed sides in accordance with subsection (9)(b) of this section or the skylight must be covered in accordance with subsection (9)(c) of this section. Personal fall arrest equipment may be used as an equivalent means of fall protection when worn by all employees exposed to the fall hazard.

(v) Pits and trap door floor openings must be guarded by floor opening covers of standard strength and construction. While the cover is not in place, the pit or trap openings must be protected on all exposed sides by removable standard guardrail system.

(vi) Manhole floor openings must be guarded by standard covers which need not be hinged in place. While the cover is not in place, the manhole opening must be protected by standard guardrail system.

(e) Guarding of wall openings.

(i) Wall openings, from which there is a fall hazard of four feet or more, and the bottom of the opening is less than thirty-nine inches above the working surface, must be guarded as follows:

(A) When the height and placement of the opening in relation to the working surface is such that either a standard rail or intermediate rail will effectively reduce the danger of falling, one or both must be provided;

(B) The bottom of a wall opening, which is less than four inches above the working surface, regardless of width, must be protected by a standard toe board or an enclosing screen either of solid construction or as specified in subsection (9)(b)(iii) of this section.

(ii) An extension platform, outside a wall opening, onto which materials can be hoisted for handling must have standard guardrails on all exposed sides or equivalent. One side of an extension platform may have removable railings in order to facilitate handling materials.

(iii) When a chute is attached to an opening, the provisions of (d)(iii) of this subsection must apply, except that a toe board is not required.

(f) Fall protection during form and rebar work. When exposed to a fall height of four feet or more, employees placing or tying reinforcing steel on a vertical face are required to be protected by personal fall arrest systems, safety net systems, or positioning device systems.

(g) Fall protection on steep pitched and low pitched roofs.

Steep pitched roofs. Regardless of the work activity, employers must ensure that employees exposed to fall hazards of four feet or more while working on a roof with a pitch greater than four in twelve use one of the following:

(i) Fall restraint system. Warning line systems are prohibited on steep pitched roofs;

(ii) Fall arrest system; or

(iii) Positioning device system.

(h) Low pitched roofs. Employers must ensure that employees exposed to fall hazards of four feet or more while engaged in telecommunications work on low pitched roofs use one of the following:

(i) Fall restraint system;

(ii) Fall arrest system;

(iii) Positioning device system;

(iv) Warning line system;

(v) Safety watch system, see subsection (10) of this section for safety watch specifications.

(i) Hazardous slopes. Employees exposed to falls of four feet or more while working on a hazardous slope must use personal fall restraint systems or positioning device systems.

(j) Working on any surface four feet or more that does not meet the definition of a walking/working surface not already covered in this subsection (5);

(6) Excavation and trenching operations.

(a) Exceptions. Fall protection is not required at excavations four feet or more when employees are:

(i) Directly involved with the excavation process and on the ground at the top edge of the excavation; or

(ii) Working at an excavation site where appropriate sloping of side walls has been implemented as the excavation protective system.

(b) Fall protection is required for employees standing in or working in the affected area of a trench or excavation exposed to a fall hazard of ten feet or more and:

(i) The employees are not directly involved with the excavation process; or

(ii) The employees are on the protective system or any other structure in the excavation.

Note: Persons considered directly involved in the excavation process include:
1. Foreman of the crew.
2. Signal person.
3. Employee hooking on pipe or other materials.
4. Grade person.
5. State, county, or city inspectors inspecting the excavation or trench.
6. An engineer or other professional conducting a quality-assurance inspection.

(7) Fall protection work plan. The employer must develop and implement a written fall protection work plan including each area of the work place where the employees are assigned and where fall hazards of ten feet or more exist.

(a) The fall protection work plan must:

(i) Identify all fall hazards in the work area;

(ii) Describe the method of fall arrest or fall restraint to be provided;

(iii) Describe the proper procedures for the assembly, maintenance, inspection, and disassembly of the fall protection system to be used;

(iv) Describe the proper procedures for the handling, storage, and securing of tools and materials;

(v) Describe the method of providing overhead protection for employees who may be in, or pass through the area below the worksite;

(vi) Describe the method for prompt, safe removal of injured employees; and

(vii) Be available on the job site for inspection by the department.

(b) Prior to permitting employees into areas where fall hazards exist the employer must ensure employees are trained and instructed in the items described in (a)(i) through (vii) of this subsection.

(8) Fall arrest specifications. Fall arrest protection must conform to the following provisions:

(a) Personal fall arrest system must consist of:

(i) A full body harness must be used.

(ii) Full body harness systems or components subject to impact loading must be immediately removed from service and must not be used again for employee protection unless inspected and determined by a competent person to be undamaged and suitable for reuse.

(iii) Anchorages for full body harness systems must be capable of supporting (per employee):

(A) Three thousand pounds when used in conjunction with:

(I) A self-retracting lifeline that limits the maximum free fall distances to two feet or less; or

(II) A shock absorbing lanyard that restricts the forces on the body to nine hundred pounds or less.

(B) Five thousand pounds for all other personal fall arrest system applications, or they must be designed, installed, and used:

(I) As a part of a complete personal fall arrest system which maintains a safety factor of at least two; and

(II) Under the supervision of a qualified person.

(iv) When stopping a fall, personal fall arrest systems must:

(A) Be rigged to allow a maximum free fall distance of six feet so an employee will not contact any lower level;

(B) Limit maximum arresting force on an employee to one thousand eight hundred pounds (8 kN);

(C) Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to three and one-half feet (1.07 m); and

(D) Have sufficient strength to withstand twice the potential impact energy of an employee free falling a maximum distance of six feet (1.8 m).

Note: Shock absorbers that meet the requirements of ANSI Z359.13-2013 that are used as a part of a personal fall arrest system in accordance with manufacturer's recommendations and instructions for use and installation will limit the maximum arresting forces on an employee's body to one thousand eight hundred pounds or less.

(v) All safety lines and lanyards must be protected against being cut or abraded.

(vi) The attachment point of the full body harness must be located in the center of the wearer's back near shoulder level, or above the wearer's head.

(vii) Hardware must be drop forged, pressed or formed steel, or made of materials equivalent in strength.

(viii) Hardware must have a corrosion resistant finish, and all surfaces and edges must be smooth to prevent damage to the attached full body harness or lanyard.

(ix) When vertical lifelines (droplines) are used, not more than one employee shall be attached to any one lifeline.

Note: The system strength needs in the following items are based on a total combined weight of employee and tools of no more than three hundred ten pounds. If combined weight is more than three hundred ten pounds, appropriate allowances must be made or the system will not be in compliance. For more information on system testing, see chapter 296-880 WAC, Unified safety standards for fall protection.

(x) Vertical lifelines (droplines) must have a minimum breaking strength of five thousand pounds (22.2 kN), except that self-retracting lifelines and lanyards which automatically limit free fall distance to two feet (.61 m) or less must have a minimum breaking strength of three thousand pounds (13.3 kN).

(xi) Horizontal lifelines must be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.

(xii) Droplines or lifelines used on rock scaling operations, or in areas where the lifeline may be subjected to cutting or abrasion, must be a minimum of seven-eighths inch wire core manila rope or equivalent. For all other lifeline applications, a minimum of three-fourths inch manila rope or equivalent, with a minimum breaking strength of five thousand pounds, must be used.

(xiii) Lanyards must have a minimum breaking strength of five thousand pounds (22.2 kN).

(xiv) All components of full body harness systems whose strength is not otherwise specified in this subsection must be capable of supporting a minimum fall impact load of five thousand pounds (22.2 kN) applied at the lanyard point of connection.

(xv) D-rings and snap hooks must be proof-tested to a minimum tensile load of three thousand six hundred pounds (16 kN) without cracking, breaking, or taking permanent deformation.

(xvi) Snap hooks must be a locking type snap hook designed and used to prevent disengagement of the snap hook by the contact of the snap hook keeper by the connected member.

(xvii) Unless the snap hook is designed for the following connections, snap hooks must not be engaged:

(A) Directly to the webbing, rope or wire rope;

(B) To each other;

(C) To a D-ring to which another snap hook or other connector is attached;

(D) To a horizontal lifeline; or

(E) To any object which is incompatibly shaped or dimensioned in relation to the snap hook such that unintentional disengagement could occur by the connected object being able to depress the snap hook keeper and release itself.

(b) Safety net systems. Safety net systems and their use must comply with the following provisions:

(i) Safety nets must be installed as close as practicable under the surface on which employees are working, but in no case more than thirty feet (9.1 m) below such level unless specifically approved in writing by the manufacturer. The potential fall area to the net must be unobstructed.

(ii) Safety nets must extend outward from the outermost projection of the work surface as follows in Table 3:

Table 3

Vertical distance from working levels to horizontal plane of net	Minimum required horizontal distance of outer edge of net from the edge of the working surface
Up to 5 feet	8 feet
More than 5 feet up to 10 feet	10 feet
More than 10 feet	13 feet

(iii) Safety nets must be installed with sufficient clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test specified in (b)(iv) of this subsection.

(iv) Safety nets and their installations must be capable of absorbing an impact force equal to that produced by the drop test.

(A) Except as provided in (b)(iv)(B) of this subsection, safety nets and safety net installations must be drop-tested at the job site after initial installation and before being used as a fall protection system, whenever relocated, after major repair, and at six-month intervals if left in one place. The drop-test must consist of a four hundred pound (180 kg) bag of sand 30 ± 2 inches (76 ± 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than forty-two inches (1.1 m) above that level.

(B) When the employer can demonstrate that it is unreasonable to perform the drop-test required by (b)(iv)(A) of this subsection, the employer (or a designated competent person) must certify that the net and net installation is in compliance with (b)(iii) and (iv)(A) of this subsection by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with (b)(iii) of this subsection and the signature of the person making the determination and certification. The most recent certification record for each net and net installation must be available at the job site for inspection.

(v) Materials, scrap pieces, equipment, and tools which have fallen into the safety net must be removed as soon as possible from the net and at least before the next work shift.

(vi) The maximum size of each safety net mesh opening must not exceed thirty-six square inches (230 cm^2) nor be longer than six inches (15 cm) on any side, and the opening, measured center-to-center of mesh ropes or webbing, must not be longer than six inches (15 cm). All mesh crossings must be secured to prevent enlargement of the mesh opening.

(vii) Each safety net (or section of it) must have a border rope or webbing with a minimum breaking strength of five thousand pounds (22.2 kN).

(viii) Connections between safety net panels must be as strong as integral net components and must be spaced not more than six inches (15 cm) apart.

(c) Catch platforms.

(i) A catch platform must be installed within four vertical feet of the work area.

(ii) The catch platform's width must be a minimum of forty-five inches wide and must be equipped with standard guardrails and toe boards on all open sides and must be capable of supporting a minimum of eight hundred pounds or the maximum potential load, with a safety factor of four.

(9) Fall restraint specifications. Fall restraint protection must conform to the following provisions:

(a) Personal fall restraint systems must be rigged to allow the movement of employees only as far as the unprotected sides and edges of the walking/working surface, and must consist of:

(i) A full body harness must be used.

(ii) The full body harness must be attached to securely rigged restraint lines.

(iii) All hardware assemblies for full body harness must be capable of withstanding a tension loading of four thousand pounds without cracking, breaking, or taking a permanent deformation.

(iv) The employer must ensure component compatibility.

(v) Anchorage points used for fall restraint must be capable of supporting four times the intended load.

(vi) Rope grab devices are prohibited for fall restraint applications unless they are part of a fall restraint system designed specifically for the purpose by the manufacturer, and used in strict accordance with the manufacturer's recommendations and instructions.

(b) Guardrail specifications.

(i) A standard guardrail system must consist of top rail, intermediate rail, and posts, and must have a vertical height of thirty-nine to forty-five inches from upper surface of top rail to floor, platform, runway, or ramp level. When conditions warrant, the height of the top edge may exceed the forty-five inch height, provided the guardrail system meets all other criteria of this subsection. The intermediate rail must be halfway between the top rail and the floor, platform, runway, or ramp. The ends of the rails must not overhang the terminal posts except where such overhang does not constitute a projection hazard.

(ii) Minimum requirements for standard guardrail systems under various types of construction are specified in the following items:

(A) For wood railings, the posts must be of at least two-inch by four-inch stock spaced not to exceed eight feet; the top rail must be of at least two-inch by four-inch stock and each length of lumber must be smooth surfaced throughout the length of the railing. The intermediate rail must be of at least one-inch by six-inch stock. Other configurations may be used for the top rail when the configuration meets the requirements of (b)(ii)(G) of this subsection.

(B) For pipe railings, posts and top and intermediate railings must be at least one and one-half inches nominal OD diameter with posts spaced not more than eight feet on centers. Other configurations may be used for the top rail when the configuration meets the requirements of (b)(ii)(G) of this subsection.

(C) For structural steel railings, posts and top and intermediate rails must be of two-inch by two-inch by three-eighths inch angles or other metal shapes of equivalent bending strength, with posts spaced not more than eight feet on centers. Other configurations may be used for the top rail when the configuration meets the requirements of (b)(ii)(G) of this subsection.

(D) For wire rope railings, the top and intermediate railings must meet the strength factor and deflection of (b)(ii)(E) of this subsection. The top railing must be flagged at not more than six foot intervals with high-visibility material. Posts must be spaced not more than eight feet on centers. The rope must be stretched taut and must be between thirty-nine and forty-five inches in height at all points. Other configurations may be used for the top rail when the configuration meets the requirements of (b)(ii)(G) of this subsection.

(E) The anchoring of posts and framing of members for railings of all types must be of such construction that the completed structure must be capable of withstanding a load of at least two hundred pounds applied in any direction at any point on the top rail. The top rail must be between thirty-nine and forty-five inches in height at all points when this force is applied.

(F) Railings receiving heavy stresses from employees trucking or handling materials must be provided additional strength by the use of heavier stock, closer spacing of posts, bracing, or by other means.

(G) Other types, sizes, and arrangements of railing construction are acceptable, provided they meet the following conditions:

(I) A smooth surfaced top rail at a height above floor, platform, runway, or ramp level between thirty-nine and forty-five inches;

(II) When the two hundred pound (890 N) load specified in (b)(ii)(E) of this subsection is applied in a downward direction, the top edge of the guardrail must not deflect to a height less than thirty-nine inches (1.0 m) above the walking/working level. Guardrail system components selected and constructed in accordance with this part will be deemed to meet this requirement;

(III) Protection between top rail and floor, platform, runway, ramp, or stair treads, equivalent at least to that afforded by a standard intermediate rail;

(IV) Elimination of overhang of rail ends unless such overhang does not constitute a hazard.

(iii) Toe board specifications.

(A) A standard toe board must be a minimum of four inches nominal in vertical height from its top edge to the level of the floor, platform, runway, or ramp. It must be securely fastened in place with not more than one-quarter inch clearance above floor level. It may be made of any substantial material, either solid, or with openings not over one inch in greatest dimension.

(B) Where material is piled to such height that a standard toe board does not provide protection, paneling, or screening from floor to intermediate rail or to top rail must be provided.

(c) Cover specifications.

(i) Floor opening or floor hole covers must be of any material that meets the following strength requirements:

(A) Conduits, trenches, and manhole covers and their supports, when located in roadways, and vehicular aisles must be designed to carry a truck rear axle load of at least two times the maximum intended load;

(B) All floor opening and floor hole covers must be capable of supporting, without failure a minimum of eight hundred pounds or the maximum potential load, with a safety factor of four.

(I) All covers must be secured when installed so as to prevent accidental displacement by the wind, equipment, or employees.

(II) All covers must be color coded or they must be marked with the word "hole" or "cover" to provide warning of the hazard.

(ii) Barriers and screens used to cover wall openings must meet the following requirements:

(A) Barriers must be of such construction and mounting that, when in place at the opening, the barrier is capable of withstanding a load of at least two hundred pounds applied in any direction (except upward), with a minimum of deflection at any point on the top rail or corresponding member.

(B) Screens must be of such construction and mounting that they are capable of withstanding a load of at least two hundred pounds applied horizontally at any point on the near side of the screen. They may be of solid construction of either grill work with openings not more than eight inches long, or of slat work with openings not more than four inches wide with length unrestricted.

(d) Warning line system specifications on pitches four in twelve or less for telecommunications work, and on low pitched open sided surfaces for work activities. The employer must ensure the following:

(i) Warning lines must be erected around all unprotected sides and edges of the work area during telecommunications work.

(A) When telecommunications work is taking place or when mechanical equipment is not being used, the warning line must be erected not less than six feet (1.8 m) from the edge of the roof.

(B) When mechanical equipment is being used, the warning line must be erected not less than six feet (1.8 m) from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than ten feet (3.1 m) from the roof edge which is perpendicular to the direction of mechanical equipment operation.

(C) The employer must ensure that warning line systems are not used in adverse weather or in hours of darkness.

(ii) The warning line must consist of a rope, wire, or chain and supporting stanchions erected as follows:

(A) The rope, wire, or chain must be flagged at not more than six foot (1.8 m) intervals with high visibility material. Highly visible caution or danger tape as described in (d)(ii)(D) of this subsection, does not need to be flagged.

(B) The rope, wire, or chain must be rigged and supported in such a way that its lowest point (including sag) is no less than thirty-six inches from the surface and its highest point is no more than forty-five inches from the surface.

(C) After being erected, with the rope, wire or chain attached, stanchions must be capable of resisting, without tipping over, a force of at least sixteen pounds (71 N) applied horizontally against the stanchion, thirty inches (0.76 m) above the surface, perpendicular to the warning line, and in the direction of the unprotected sides or edges of the surface.

(D) The rope, wire, or chain must have a minimum tensile strength of five hundred pounds (2.22 kN), and after being attached to the stanchions, must be capable of supporting, without breaking, the loads applied to the stanchions.

(E) The line must be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

(iii) Access paths must be erected as follows:

(A) Points of access, materials handling areas, and storage areas must be connected to the work area by a clear access path formed by two warning lines.

(B) When the path to a point of access is not in use, a rope, wire, or chain, equal in strength and height to the warning line, must be placed across the path at the point where the path intersects the warning line erected around the work area.

(e) When work is being performed between the warning line and edge of the roof the employee must maintain 100 percent fall protection by fall restraint or fall arrest.

(10) Safety watch system specifications.

(a) When one employee is conducting any testing, servicing of equipment or repair work on a roof that has a pitch no greater than four in twelve, and not within six feet of the roof's edge, employers are allowed to use a safety watch system.

(b) Ensure the safety watch system meets the following requirements:

(i) There can only be two people on the roof while the safety watch system is being used: The one employee acting as the safety watch and the one employee engaged in the repair work or servicing equipment;

(ii) The employee performing the task must comply promptly with fall hazard warnings from the safety watch;

(iii) Mechanical equipment is not used; and

(iv) The safety watch system is not used when weather conditions create additional hazards or in the hours of darkness.

(c) Ensure the employee acting as the safety watch meets all of the following:

(i) Is a competent person as defined in WAC 296-32-210;

(ii) Has full control over the work as it relates to fall protection;

(iii) Has a clear, unobstructed view of the worker;

(iv) Is able to maintain normal voice communication; and

(v) Performs no other duties while acting as the safety watch.

(11) Other specifications.

(a) Ramps, runways and inclined walkways must:

(i) Be at least eighteen inches wide; and

(ii) Not be inclined more than twenty degrees from horizontal and when inclined, they must be cleated or otherwise treated to prevent a slipping hazard on the walking surface.

Note: See WAC 296-32-22555 (5)(c) for guarding ramps, runways, and inclined walkways that are four feet or more above the ground or lower level.

(b) Self-rescue devices. Self-rescue devices are not a fall protection system. Self-rescue devices used to self-rescue after a fall must meet the following requirements:

(i) Use self-rescue devices according to the manufacturer's instructions; and

(ii) Self-rescue devices must be addressed by the fall protection work plan.

(c) Canopy. Canopies, when used as falling object protection, must be strong enough to prevent collapse and to prevent penetration by any objects which may fall onto the canopy.

(d) Roofing bracket specifications. Roofing brackets are not a fall protection system.

(i) Roofing brackets must be constructed to fit the pitch of the roof.

(ii) In addition to securing brackets using the pointed metal projections, brackets must also be secured in place by nailing. When it is impractical to nail brackets, rope supports must be used. When

rope supports are used, they must consist of first grade manila of at least three-quarters inch diameter, or equivalent.

(e) Roof edge materials handling areas and materials storage specifications.

(i) When guardrails are used at hoisting areas, a minimum of four feet of guardrail must be erected along each side of the access point through which materials are hoisted.

(ii) A chain or gate must be placed across the opening between the guardrail sections when hoisting operations are not taking place.

(iii) When guardrails are used at bitumen pipe outlet, a minimum of four feet of guardrail must be erected along each side of the pipe.

(iv) Mechanical equipment must be used or stored only in areas where employees are protected using a fall arrest system as described in WAC 296-32-22555(8), or a fall restraint system as described in WAC 296-32-22555 (9)(b) or (d). Mechanical equipment may not be used or stored where the only protection is provided by the use of a safety monitor.

(v) The hoist must not be used as an attachment/anchorage point for fall arrest or fall restraint systems.

(vi) Materials must not be stored within six feet of the roof edge unless guardrails are erected at the roof edge. Guardrails must include a toe board if employees could be working or passing below.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 20-20-109, § 296-32-22555, filed 10/6/20, effective 11/6/20. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, and chapter 49.17 RCW. WSR 17-20-069, § 296-32-22555, filed 10/2/17, effective 1/1/18.]