**R614. Labor Commission, Occupational Safety and Health.**

**R614-6. Other Operations.**

**R614-6-1. Crushing, Screening, and Grinding Equipment.**

A. Car moving, dumping, and shakeout or cleanout operations shall be performed in a safe manner and in compliance with Section R614-6-4. Reloading shall be performed in a safe manner.

B. Track or truck hoppers or bins shall be covered with a grizzly, or other suitable means shall be provided to prevent an employee from accidentally falling into the bin, or the employee shall wear a safety harness properly tied off. This is also applicable when working around or over crushers or rolls.

C. Equipment feeding crushing, screening and grinding facilities shall be adequately guarded and maintained in a safe manner.

D. Air lines, bars, hammers, and all other tools used shall be kept in good repair at all times. Goggles or face shields shall be worn when lancing or barring down or when any other activity may result in flying particles.

E. Protective equipment such as hard hats, safety shoes, eye protection, respiratory protection, and gloves shall be worn when needed. Operators shall wear clothing as needed to reasonably cover the body. Such clothing shall be relatively close fitting so as to preclude loose, ragged sleeves or trouser legs, long coat tails, neckties and other such items as may become entangled in the machinery.

F. Machinery guards shall be kept in place and machinery shall not be operated following repairs until guards are in place and secured. Electrical gear shall have covers in place during operation.

G. No employees shall work on the drive mechanism, in a chute, hopper, screen, grinder, or crusher unless same is locked and/or tagged in compliance with Subsection R614-1-5(D)(6) and the supervisor is informed of the employee's whereabouts.

H. Adequate work platforms and walkways shall be provided. All platforms, ramps, walkways, ladders, and stairways shall be in conformance with 29 CFR 1910 Subpart D. Crossover crushing and feeding equipment shall be provided and the operators shall use such crossovers and not pass over hazardous, unprotected equipment.

I. Adequate storage for tools and supplies shall be provided.

J. Dunnage and other waste or scrap material shall have a place of disposal and shall be removed so as to permit the maintenance of an adequate housekeeping program.

K. Throwing of materials from crushers, elevators, or overhead platforms shall be prohibited, except when an area is provided and barricaded to make it safe.

L. Electrical gear on crushing, screening, and grinding equipment shall be grounded and otherwise meet the requirements of 29 CFR 1910 Subpart S.

M. Dust shall be controlled at the source by adequate dust control equipment. Where this is not effectively accomplished, such additional procedures as wetting down, vacuum cleaning and other means shall be provided and used. Approved respiratory equipment shall be provided when dust concentrations indicate their need.

N. Areas under rod mills, ball mills, and other rotating equipment shall be adequately barricaded, or fenced to prevent persons passing under the operating mills unless such mills have at least 10' clearance above floor level.

O. Employees shall not work over rotating mills, spiral or drag classifiers or any other similar equipment unless protected by a bridge, catwalk, crossover or other protective device.

P. Reagents shall be used in conformance with directions and warnings as supplied by the manufacturer or supplier. Such hazards as caustic or acid burns, fire, poisons, irritants, etc., must be recognized and the operator trained and protected to prevent accidental or unmindful contact which may cause injury. The necessary protective equipment shall be supplied and used.

Q. Any chemicals used in connection with grinding or milling operations shall be labeled.

R. Before any crushing, screening, or grinding equipment is started, the operator shall be sure all persons are clear and machinery is released for operation.

S. Impact breakers, jaw crushers, crushing rolls, and similar equipment shall be protected by adequate covers, chain curtains or other effective guards to prevent material from being thrown out of the feed opening of the crusher.

**R614-6-2. Window Cleaning.**

A. General.

1. The employer shall provide safety devices and equipment as required by this rule and shall ensure employees properly use and maintain such equipment and devices.

2. It shall be the responsibility of the employee to wear and use the devices so provided as directed and to assist in its reasonable care and maintenance.

3. Only employees who have been adequately trained and instructed shall be permitted to clean windows where the use of anchors, safety harnesses, swinging scaffolds, boatswains' chairs, tackle or other similar equipment is required.

B. Ladders-scaffolds.

1. Ladders shall not be used to clean windows whose top is more than 36 feet above the floor of adjoining ground or a flat roof or which are so placed or obstructed as to make the method unsafe. Built-up scaffolds are preferred over ladders.

2. The use of ladders with hooks attached, to be hung on or over a parapet wall or other projection, are prohibited in window cleaning.

C. Windows.

1. Windows which are of such type that both the inside and the outside of the window may be cleaned from the inside, if over 10 feet to the top of the window on the outside must be cleaned from the inside of the building.

2. Windows whose top is over 36 feet above ground, floor or flat roof, and which are of the type that cannot be cleaned from the inside must be provided with window anchors, or shall be cleaned only by use of swinging or built-up scaffolds or boatswains' chairs or other satisfactory method providing equal safety.

3. When window anchors are used, they shall meet the requirements of ANSI Standard A39.1-1969 and shall be inspected and maintained in a safe manner. No window cleaner shall use an anchor which is loose or insecure.

4. When working from a suspended scaffold or boatswain's chair, the employee shall wear an approved safety harness and shall be tied off to a line supported from a separate roof anchorage to the ground which must be separate from the rest of the rigging. The fall line shall be provided with an approved automatic locking device.

D. Equipment.

1. Extension tools shall not be over 6 feet long. Brushes or squeegees on a pole used by cleaners shall be attached to the cleaner by a wristloop or other device to prevent dropping. Each extension device so used shall have a locking device to prevent inadvertent detachment of the brush or squeegee.

2. Brushes, buckets, squeegees, and other equipment used by a cleaner working on a scaffold or boatswains' chair shall be fastened to equipment at the moment when not in actual use in the hand of the cleaner.

3. When cleaning windows, special care shall be used where electrical supply lines present a hazard.

4. Window jacks and all other platform devices fastened to window sills for a cleaner to stand upon outside of the window without standard harnesses and anchors are prohibited.

5. Ropes used in windows, cleaning operations shall be inspected before being used and shall be discarded if unsafe.

**R614-6-3. House and Building Moving.**

A. General.

1. House movers must provide and maintain good safe equipment. Jacks, blocking, stringers, etc., must be of the proper type and sufficiently strong to support the working load and provide a reasonable factor of safety.

2. Employees shall be properly instructed in the use of the blocks, stringer, jacks, and other equipment, and they shall not be permitted to work under any building or structure until it is safely supported.

B. Utilities and Special regulations.

1. Buildings or structures must not be moved within six (6) feet of any power or communication line until the following provisions have been fully complied with:

a. Arrangements have been made with electric and telephone utilities to have employees present to take care of wires which may interfere with movement of the building or structure.

b. Electric utility lineworkers are present to take care of any electric supply wires which may interfere with movement of the building or structure.

c. Telephone company utility employees are present to take care of telephone wires or cables which may interfere with movement of the building or structure.

d. No one except electric utility lineworkers shall be on top of the building or structure while it is passing within 6 feet of energized electric supply wires.

e. A ridge board has been installed on the ridge of the building or structure to assist in sliding wires over it.

2. All state, county, city, or municipal regulations shall also be observed.

3. A "special transporting permit" issued by the Utah Highway Patrol shall be obtained before buildings are moved on the highway.

**R614-6-4. Industrial Railroads.**

A. Car handling and layout.

1. Purpose. These orders set up minimum standards for industrial railroads in above-ground operations. Where it has been determined by the Commission that, due to the process or operation, compliance with these orders would increase the hazards, industrial railroads need not comply provided such substandard areas are properly posted with warning signs, clearance distances indicated, areas barricaded, proper instructions given to workers or other safety devices installed to provide workers with maximum protection. Nothing in this rule shall be construed as preventing the movement of material over tracks when such material is necessary in the construction or maintenance of such tracks, nor in the movement of special work equipment used in the construction, maintenance or operation of the railroad, provided such movement shall be carried on under such conditions as are necessary to provide for the safety of all concerned.

2. Definition. An industrial railroad is a railway track, or system of tracks, with necessary appurtenances thereto, owned or controlled by an industrial concern not a common carrier, which operations are conducted solely by one or more of such industrial concerns.

3. Layout. Plant layout as it applies to the installations of railroad tracks, trestles, high lines, loading docks, clearances, crossing, etc., shall comply with the Manual of the American Railway Engineering Association-Engineering Division, and General Order No. 66 of the Public Service Commission of Utah.

a. Where there is a driveway storage space or passageway under a trestle, the passageway should be protected with an overhead shield.

b. On trestles and other places where material is unloaded from side of cars, footwalk can be placed at a distance and part of the floor or walk can be arranged so that it can be lifted to allow metal or other material to fall through. Cable nets or gratings should be provided to prevent employees from falling through openings.

4. Clearance. Standard clearances may not give enough protection where tracks pass doorways or corners of buildings or other places where workers may walk directly onto tracks in front of moving railroad equipment. These locations must be safeguarded with fixed railings or other means that force employees to detour or to become otherwise alerted to the hazard.

5. Crossings. Track crossings shall be reduced to a reasonable minimum and as far as practical shall be away from buildings or their obstructions which may impair visibility. The crossings inside plants shall be equipped with stop signs, blinking light, wig-wags, gates, or other means of effective warning or be protected by a watchperson, switchperson, or other responsible person.

6. Trestles and Highlines.

a. Trestles shall be equipped with walks, the outer edge of which shall be at least six (6) feet from the rail. Where practical, the floor of this walk shall extend to within four (4) inches of the ends of the ties. In no case shall the walk be less than 20 inches wide. Each walk shall be equipped with a standard railing and toeboard.

b. All dead-end tracks are to be provided with adequate blocks. Draw bar height is preferable.

7. Speed limits. Speed limits both for train and vehicular travel inside industrial plants, shall be established and enforced.

8. Movement of railroad cars by car movers other than locomotives.

a. Car moving equipment, such as continuous cable pullers, winches, or other types of car movers shall have adequate guards to protect the operator, should the cable break.

b. The maximum number of cars loaded and empty, must be established and operators instructed in these safe load limits.

c. Hand-type car movers shall be provided with a guard to protect the operator's hand, should the tool slip.

d. Pushmobiles, trucks, and any other mobile-type car movers which are specifically intended for car moving shall have a coupler connection to railroad car being moved except when spotting only.

e. Persons assigned as car riders or so-called car droppers, must be adequately trained and shall use a safety harness and a short lanyard attached to the car they are riding while performing this work. This is not applicable to railroad switching crews.

9. Reporting bad order cars.

A definite procedure must be established for reporting bad order or damaged equipment, such as pin lifters, couplers, dumping mechanisms, etc.

10. Blocking of Cars.

a. When there is danger of cars rolling or drifting and employees are required to work on them, cars must be blocked with adequate wheel blocks to prevent them from rolling.

b. Where railroad cars are equipped with effective hand brakes, they may be set up to prevent cars from moving when employees are working on or inside of them in place of wheel blocks.

11. Blue Flag Procedure. When working on tracks, unloading or loading cars such as tank cars, gondolas, box cars, etc., the following blue flag track target procedure must be followed:

a. All blue flag track targets shall be of substantial material, not less than 12" x 15" in size, shall bear the word STOP in letters not less than 4" in height, and shall be at least 28" and not more than 10' above the top of the rail when placed. The supervisor or other person in charge will determine the distance that they are to be placed on each side of the work area.

b. Track target shall be placed on spur tracks 10' from the clearance of the lead or through tracks and the switch of the spur track locked in a closed position.

c. Track target shall be securely clamped upright to the rail or fastened securely to the side of the rail.

d. At night or when weather conditions result in poor visibility, a blue light is to be placed on the track target in the space provided.

e. Where permanent derails are installed, they must be identified with the standard derail post located 8'6" from the nearest rail. Weeds and debris must be kept free of sign posts.

f. Red flags and red lights may be used in emergency cases where standard blue flag targets and blue lanterns are not immediately available, but must be replaced as soon as possible with the standard blue target and blue light.

g. Train crews shall not couple into or move railroad equipment which is protected by blue flags.

h. Railroad equipment shall not be placed in front of blue flags so as to obscure them without notification to and approval of the supervisor or other person in charge of the work on the tracks. The supervisor in charge of the work will then replace the flag for proper protection.

i. The blue flags or derails are to be removed only under the direction of the supervisor or other person in charge of the work on the tracks.

j. When two or more supervisors have groups of employees working on the same tracks, each supervisor will place a personal lock on the blue flag derail or switch.

k. The blue flag or derail lock must be removed promptly when the work is completed and the tracks are ready for their normal use.

l. The Yardmaster or other designated person will be notified at the start and finish of all work being performed on lead or through tracks.

m. When cars are required to be repaired or mechanical adjustments are needed to be made in the field, the blue flag procedure must be followed.

n. At any time the blue flag procedure cannot be used, a flagperson or safety watchman must be provided to give protection for employees working on equipment.

o. Derails shall never be placed on molten metal or slag tracks unless there is no other means of giving adequate protection for employees or equipment.

12. Unloading cars.

a. Training of employees is required before they are assigned to unload gondolas, bottom dumpers, side dumps, or air dump-type cars.

b. Employees are not permitted to work inside railroad cars when they are being unloaded with a magnet.

c. Bottom dump and side dump car mechanisms are to be operated with tools designed for dumping and they must be in good working condition. At no time shall tools in poor repair be used. Their condition must be reported to the supervisor immediately.

d. At no time shall a railroad car be dumped if the dumping mechanisms are defective which makes them unsafe to operate. Such defective cars will be referred to the proper authority.

e. When employees are required to enter covered hopper cars or tank cars through the hatch cover opening, the hatch cover must be fastened securely open so there is no chance of its closing while the employee is in the car.

f. When it is necessary for employees to enter covered hopper cars or tank cars, safety checks must be made to determine that there is no toxic or explosive gas or lack of oxygen.

13. Closed car thawing houses and heating equipment must be so designated and constructed as to prevent accumulations of toxic or explosive gases.

14. Before employees or locomotives are permitted to enter closed car thawing houses when in operation, ventilation must be provided to insure no toxic or explosive gas or lack of oxygen is present.

15. Lighting-Classification Yards. Classification yards and other similar areas where trains are made up to or broken down shall conform to the specification issued by the American Railway Engineering Association.

B. Operations and maintenance.

1. Trackage and controls. Trackage, roadbed signal systems, traffic control system, power lines should be maintained in good condition and shall be regularly inspected.

2. Switch throws shall be so installed as to provide adequate clearance for switchperson.

3. The rod extending from the bridle bar to the throw shall be covered or the stumbling hazard shall be otherwise minimized.

4. Derail devices shall be installed where necessary on all side tracks on or near junction with connection to through traffic lines.

5. Dead-end tracks shall have bumping blocks or the equivalent to prevent cars from running off the end of the tracks.

6. Where foot travel is required adjacent to switches, a walkway shall be provided.

7. Employees shall be prohibited from sitting on tracks or under cars.

8. Each employee shall be prohibited from climbing over or crawling under cars to cross tracks, unless it is in the performance of the employee's assigned duties.

9. Signs and Flags.

a. A sign reading STOP with white lettering on blue background must be placed on the track, or between the rails of the track, in approach to cars which are being loaded, or unloaded, and when the sign is displayed cars must be not coupled to nor moved nor other cars placed so as to obstruct the view of the sign. Warning lights must be attached to the sign by night.

b. The sign will be placed and removed only by an authorized employee. The sign must be displayed to protect employees loading, unloading, or working in or about cars, and must not be removed until it is known that employees and others are clear.

c. When a sign reading STOP (white lettering on blue background) is displayed, the engine must not be coupled to a tugger, nor shall the car be moved by other means.

d. A car placarded Explosives, Flammable Liquids, Dangerous shall not be cut off while in motion. No car moving under its own momentum shall be allowed to strike any car placarded Explosives, Flammable Liquids, or Dangerous nor shall any such car be coupled with more force than is necessary to complete the coupling.

e. Loaded tank cars with any of the above placards must not be cut off until the hand brake has been tried and found in proper working condition.

10. Electrical.

a. When central traffic control exists and its operation is interrupted or suspended or any irregular function of the system occurs, rail movement shall not be allowed to continue until stoppage or malfunction has been determined, and only then if such movement can be made safely and with direct communication with traffic control operation.

b. All principal electrical switches shall be marked.

c. If the track is used for the return circuit, both rails shall be well bonded at every joint, excepting those tracks governed by automatic block signals.

11. Riding Equipment and Coupling.

a. Employees are cautioned not to get on or off an engine or car which is in rapid motion.

b. Employees must face the equipment in descending ladders on engines and cars, whether standing or moving.

c. Employees are forbidden to ride on draw bars. When movement is being made, employees must not go between engine or ride on leading footboards of the engine in direction of movement, except to uncoupling car from engine. Standing, walking on top of, and jumping from car to car is prohibited.

d. If uncoupling lever fails to work, a stop shall be made before uncoupling car. When necessary to change the alignment of couplers cars must be stopped, and under no circumstances should an attempt be made to adjust couplers with foot or hand or raise lock pin by hand, while cars are moving.

e. If necessary to make change or repairs to couplers, the circumstances must be understood by all employees who may, through misunderstanding, move or cause the car to be moved; the cars should be separated not less than one car length to reduce possibility of injury, should they be moved by mistake. Employees should, when possible, avoid standing directly in line with couplers.

f. Trainperson and enginepersons must forbid employees whose duties do not connect them with the movement, to get on and off engines or cars, while in motion.

g. No one except the train, engineer crew and person authorized by management should be permitted to ride on or in a locomotive or on a train.

h. "Poling" or moving a car on another track with a pole should be done only in extreme emergency and under direct supervision. DO NOT PUSH CAR UNTIL ALL PERSONS ARE IN A SAFE PLACE.

i. Rocker or "Cradle" type dumping cars shall be equipped with an efficient positive locking device.

j. Brake-persons are not permitted to ride on or between slag pots, or between slag pot and locomotive.

k. Before spotting a slag pot for filling, it shall be inspected carefully to insure that no water or wet debris is in the bottom of the pot.

l. Pots and ladles must not be filled so full as to cause spillage.

m. Before dumping slag in a new place, a member of the crew must investigate to insure that no one will be endangered by the hot slag.

n. In handling railroad cars, employees must:

(1) Use standard brake clubs.

(2) Wear a safety hat.

(3) Wear snug-fitting clothes.

(4) Be required to ride the front end of all trains that are being pushed.

(5) Get off a moving locomotive from the side, well in the clear of the footboard.

(6) Not stand on or between the rails when mounting a moving location.

12. Locomotives.

a. Locomotive shall be equipped with a bell and a whistle, both capable of giving a loud and clear warning signal.

b. Each locomotive used, between sunset and sunrise, shall have two lights, one located on the front of the locomotive and one on the rear, each of which shall enable a person in the cab of the locomotive under the condition, including visual capacity, to see a dark object for a distance of at least 300 feet ahead, and in front of such headlight in yard service and 800 feet in road service.

c. All locomotives equipped with footboards shall be equipped with toeboards. The grab irons and handrails shall be well maintained at all times.

d. Safety latches shall be provided on electric locomotives to hold trolley poles, current collector, or pantagraphs away from the trolley wires.

e. The engineer or motorperson shall be made responsible for the safe operation of the locomotive.

f. Locomotives shall not be run over tracks where dirt or other materials strike the footboards.

13. Car Storage.

a. When practical, cars must be kept clear of any street or public crossing, and at least one hundred feet from the crossing.

b. A sufficient number of hand brakes must be set to hold cars; if brakes are inoperative, cars must be secured otherwise. When cars are set out on a grade, they must be coupled, if practical, and in addition to brakes being set, wheels must be blocked.

c. Cars shall not be stored on tracks unless protected with derails, when facing point switches or ascending grades toward main track, except in emergency or on instructions of proper authority, and in such cases cars must be properly secured. Wheels must be blocked where necessary.

d. When empty cars are stored on tracks adjacent to buildings an opening of at least 40 feet must be made every five car lengths.

14. Air Brake Systems.

a. Where air brake systems are used, the following applies:

(1) Train line pressure for passenger trains is 110 pounds, for freight and mixed trains, 90 pounds. Should the proper control of a freight train or mixed train make it necessary, the use of 90 pounds brake pipe pressure is permissible. Brake pipe pressure for yard engines is governed by class of equipment handled or minimum of 80 pounds.

(2) Main reservoir pressure must be maintained at least 15 pounds minimum above adjustment of the feed valve, or brake pipe pressure.

(3) The proportion of air brakes in operation must at no time be less than 85% of all the cars in a train. On ascending grades rear car must have operative air brakes.

(4) Train air brake system must be charged to require air pressure, angle cocks and cut out cocks must be properly positioned, air hose must be properly coupled and must be in condition for service. An examination must be made for leaks and necessary repairs made to reduce leakage to a minimum. Retaining valves and retaining valve pipes must be inspected and known to be in condition for service.

(5) It must be known that the air brake equipment on engines is in a safe and suitable condition for service.

15. Air Brake Application.

a. Leakage from main air reservoir and related piping shall not exceed an average of three pounds per minute in a test of three minutes duration, made after the pressure was reduced 40% below maximum pressure.

b. Brake pipe leakage must not exceed five pounds per minute after a reduction of ten pounds has been made from brake pipe air pressure of not less than 70 pounds.

c. With a full service application of brakes, and with communication to the brake cylinders closed, brakes must remain applied not less than five minutes.

d. Compressor governor shall be adjusted so that the high pressure side causes the compressor to unload at 140 pounds and the low pressure side causes the compressor to load at 130 pounds.

e. Leakage from control air reservoir, related piping and pneumatically operated controls shall not exceed an average of three pounds per minute in a test of three minutes duration.

f. Compressor or compressors must be tested for a capacity by orifice test as often as conditions require but not less frequently than once every six months.

g. Every main reservoir before being put into service, and at least once every 18 months thereafter, shall be subjected to hydrostatic pressure not less than 25% above the maximum working pressure.

h. Where a stop is made on a grade for an indefinite period, brakes on all engines must be fully applied and sufficient hand brakes set when necessary to hold the train and air brakes on cars released. When on an ascending grade, hand brakes must be set on rear and on a descending grade, set on head end of train.

i. When stop is for a short period and retaining valves are in use, the air brakes, when necessary, may be applied and released once every two minutes, to assist engine brakes to hold the train.

j. When setting cars out at intermediate points, a normal brake application from the automatic brake valve must be made, hand brake applied, close angle cock from locomotive, bleed air brake system on car, block wheels of car; the air brakes on the car will not be applied under an emergency application (big hole).

16. Air Brake Maintenance.

a. Before adjusting piston travel or working on the brake rigging, brakes must be cut out by closing cut-out cock in the branch line, all reservoirs drained and necessary precautions taken.

b. Air gauges must be tested at least once every six months and when any irregularity is reported. They shall be compared with an accurate deadweight tester, or test gauge. Gauges found inaccurate or defective must be repaired or replaced.

c. Distributing or control valves, brake application valves, equalizing piston portion, feed and reducing valves, safety valves, brake pipe vent valves, relay valves, magnet valves, dirt collectors and filters must be cleaned, repaired and tested as often as conditions require to properly maintain them in a safe and suitable condition for service.

d. On engines so equipped, hand brakes, parts and connections must be inspected and necessary repairs made as often as the service requires.

e. Minimum brake cylinder piston travel must be sufficient to provide proper brake shoe clearance when brakes are released.

f. Maximum brake cylinder piston travel when engine is standing must not exceed the following:

TABLE 1

Inches

Driving wheel brake 6

Swivel type brake with

brakes on more than

one truck operated

by one brake cylinder 7

Swivel type truck brake

equipped with one

brake cylinder 8

Swivel type truck brake

equipped with two or

more brake cylinders 6

g. Foundation brake rigging, and safety supports, where used, must be maintained in safe and suitable condition for service. Levers, rods, brake beams, hangers and pins must be of ample strength and must not bind or foul in any way that will affect proper operation of brakes. All pins must be properly applied and secured in place with suitable locking devices. Brake shoes must be properly applied and kept approximately in line with treads of wheels or other braking surfaces.

h. No part of the foundation brake rigging and safety supports shall be less than 2 1/2 inches above the top of the rail.

i. Before a car is released from a shop or repair track, it must be known that the brake pipe is securely clamped, angle cocks in proper position with suitable clearance; valves, reservoirs and cylinders tight on supports and supports securely attached to car.

j. When cars are on shop or repair tracks, hand brakes and connections must be inspected, tested and necessary repairs made to insure they are in a suitable condition for safe and effective operation.

k. Brake equipment on cars must be cleaned, repaired, lubricated and tested as often as required to maintain it in a safe and suitable condition for service.

**R614-6-5. Livestock Butchering and Bulk Carcass Handling.**

A. Corrals and livestock.

1. Unloading areas are to be constructed so as not to endanger those employees working in these areas. They are to be constructed with a minimum width of three feet. The area must be lighted with sufficient illumination so that the work can be done safely.

2. Livestock holding pens are to be constructed of a heavy type material, lumber or metal, that will stand extreme pressures from livestock. Also, all sides shall be made climbable.

3. Floors of kill pens will be made of a material with a texture to reduce slippage.

4. Employees who will work with livestock are to be physically and mentally capable to perform their duties.

5. Employees shall be aware of the dangers of livestock handling before working with livestock.

6. Electrical shocking devices (hot shots) used for moving livestock shall be manufactured for the purpose with controlled power output and shall be used according to the manufacturer's recommendations. No direct wire shall be used for this purpose.

B. Kill Floors.

1. Dressing platforms shall have standard railing and toeboards at the back side and short board or rail on the dressing side. The rail on the dressing side shall have sufficient clearance above the platform for cleanup but low enough to catch an employee in case of slippage.

2. Employees using explosive-actuated knockers shall be instructed in the use of the tool.

3. Employees using pneumatic knockers shall also be instructed in the use of the tool.

4. Couplings on high pressure hoses shall be pinned, chained or otherwise secured to prevent them from uncoupling accidentally.

5. Employees knocking cattle with the explosive-actuated or pneumatic knockers need not be carded by the manufacturer.

6. Explosive-actuated or pneumatic knockers, either loaded or unloaded, shall not be pointed at workers.

7. Explosive-actuated knockers shall not be loaded until just before intended firing. No loaded tool shall be left unattended.

8. All hoist and balancers shall be equipped with safety chains.

9. All control switches are to be suspended and free swinging so as to permit the operator to move completely clear of hoist area.

10. Safety hats shall be worn by all employees.

11. All water and steam lines 160 degrees or more are to be designated as such by a sign indicating hot water and hot metal pipes shall be located or covered so as to prevent contact with hot surfaces.

12. Splitting area must be clear of all unauthorized personnel before operating saw.

C. Coolers and loading areas.

1. All rails carrying animal carcasses shall be under a periodic maintenance and inspection schedule. All rail hangers, connecting bolts and switching areas are to be checked for tightness and wear.

2. Freezers, coolers, and dry storage areas shall have provisions for adequate aisles and exits.

3. Unit coolers, heaters and refrigeration piping that is within stacking limits must be adequately protected. In ceiling coil type freezers, all stacking shall be limited to avoid striking and breaking pipes.

4. Defrosting by heat is preferred to scraping of coils. If scraping is necessary, great caution must be used and provisions for emergencies must be made.

5. Unit coolers must be provided with adequate barriers to prevent any product from coming in contact with either unit or piping. Valves, pump-out lines and the like shall be so located at the installation so that they are not vulnerable to damage.

6. All freezer and cooler doors shall be equipped with two-way door openers.

7. All dock areas are to be kept clean and free of all refuse.

8. Empty beef trollies shall not be left hanging on any rail.

9. All dock boards or plates shall have an under-structure preventing them from sliding backward or forward when in loading position. Plates shall be provided with suitable chains, or other fixture, on each side for safe lowering into position.

10. Workers must be trained in safe lifting.

11. Sanitation measures taken shall be such as to protect the health and well being of the employees. A system shall be established and maintained for waste and trash disposal so that reasonable level of housekeeping may be maintained. Wastes shall not be allowed to accumulate so as to ferment or putrefy or otherwise become unsanitary and hazardous.

12. A sufficient level of illumination shall be supplied for the type of work in the area. Reference: ANSI Standard A11.1, Industrial Lighting.

TABLE 2

MEAT PACKING

Slaughtering 30 foot-candles.

Cleaning, Cutting, etc. 100 foot-candles.

Inspection, difficult 100 foot-candles.

**R614-6-6. Motor Vehicle Transportation of Workers.**

A. General.

1. The purpose of this Safety Code is to prescribe minimum standards for the safe transportation of employees to and from their places of employment as set forth in Title 34, Chapter 36, Transportation of Workers.

2. These rules shall apply to every motor vehicle, including passenger automobiles and station wagons, used to transport employees to and from their place of employment whether or not used upon a public highway.

3. All specifications in this code are minimum. At any particular operation these rules can be enhanced or made more stringent if necessary to protect the life and safety of employees.

4. All owners of motor vehicles used to transport workers, or their appointed agents, and drivers of such vehicles shall abide by all safety orders issued by the Commission, or by its authorized representative.

5. The right of inspection and examination at any reasonable time is reserved by the Commission or its duly designated agent.

6. These rules shall not apply to motor carriers or to motor vehicles owned and operated by the government of the United States.

7. These rules and regulations do not apply to the transportation of agricultural workers.

B. Drivers.

1. Only authorized, experienced, competent, qualified and licensed drivers, not less than 18 years of age, shall be permitted to operate vehicles used to transport workers. A chauffeur's license is not required, except as may be required by law.

2. No employee shall be used to operate a vehicle for transporting workers after such an employee has completed twelve aggregate hours of work in any period of 24 consecutive hours, excluding rest stops and a meal period of not exceeding one hour. During period of regular shift change, this shall not preclude working two alternate eight-hour shifts with an eight-hour off period between the two shifts.

NOTE: A rest stop is a period of not less than two hours and during which time the employee is released from all duty and responsibility. Aggregate hours of work includes all types and classifications of employment and shall not be construed to apply to only those hours driving a vehicle.

3. In lieu of responsible supervisory personnel the operator of a vehicle shall at all times be in charge of workers and responsible for the observance of safety rules.

4. There shall be some signal system, or signaling device provided for the supervisor to communicate with or signal the driver, where the supervisor is separated from the driver.

5. Signals adopted shall be simple and understood by both driver and supervisor. If a signaling device is used, it shall be maintained in good working order.

C. Operation of vehicles.

1. No vehicle shall be loaded beyond its safe carry capacity.

2. No motor vehicle shall be driven if it is so loaded, or if the load thereon is so distributed or so inadequately secured, as to prevent its safe operation.

3. No motor vehicle shall be driven when the passengers or any object obscures the driver's view ahead or to either side, or interferes with the free movement of the driver's arms or legs, or prevents the driver's free and ready access to their controls and emergency equipment, or prevents the free and ready exit of any persons from the vehicle.

4. Drivers using motor vehicles to transport workers shall observe all motor vehicle laws of this state and the cities and counties in which the vehicle is operated.

5. The driver of any vehicle transporting workers, before crossing at grade any tracks of a railroad, shall stop such vehicle not less than 10, not more than 50 feet from the nearest rail of such track, and while so stopped shall look and listen in both directions along such tracks for approaching trains or cars.

a. This requirement shall not apply:

(1) To tracks where traffic control signals are in operation and give indication to approaching vehicular traffic to proceed.

(2) To industry track crossing across which train operations are required by law to be conducted under flat protection; or

(3) To industry track crossing within which the indicated speed of vehicles is 20 miles per hour.

b. Unless a train is approaching, motor vehicles carrying workers are not required to stop at crossings where the Public Service Commission has determined and plainly marked exempt.

6. Only persons authorized by management shall be allowed to ride on vehicles.

7. Vehicles transporting workers shall be driven completely off the highway or road to discharge or take on workers. When the width of the highway or road does not allow the observance of this rule, the vehicle shall draw to the extreme right of the usable portion of the road before discharging or taking on workers, provided there is 16 feet of roadway opposite such vehicle for free passage of other vehicles.

D. Securing of Tools, Equipment, etc.

1. Racks, boxes, holsters, or equivalent means shall be provided and arranged so passengers will not be endangered by tools or equipment being transported, loaded or removed, and tools and equipment preferably placed or arranged so they are accessible from the outside of the vehicle.

2. Tools and materials shall be secured in the racks and boxes provided.

3. When materials of any type are transported at the same time, workers shall be protected from the hazards of materials by adequate partitions or proper securing of loads.

4. A motor vehicle used to haul or transport workers must be equipped with sides at least 42" high and shall have adequate seating facilities.

E. Hauling of Explosives Prohibited.

No explosives, injurious chemicals of pesticides shall be hauled on any vehicles while they are engaged in transporting workers. This rule shall not prohibit the driver and the qualified powder crew from riding in a vehicle in which explosives are being hauled.

F. Hauling of Gasoline, etc.

Gasoline and other low flash point liquids shall not be hauled on vehicles transporting workers except in approved safety containers of not more than five-gallon capacity, and provided such containers are carried in a safe suitable location outside the passenger compartment. Such containers shall be carried as far away from the passenger compartment as possible and where they will not block exit from the vehicle and shall be firmly secured to prevent shifting, or shall be placed in well ventilated compartments or racks.

G. Refueling of Vehicles.

1. Smoking in the vicinity of vehicles being refueled is prohibited.

2. Refueling while motor is running or when within close proximity to any open fires or flame is prohibited.

H. Workers' Duties.

1. Workers riding in motor vehicles shall not stand while the vehicle is in motion. Passengers must wait for the vehicle to come to a complete stop before boarding or leaving.

2. Workers shall be prohibited from riding on running boards or fenders, hoods or cab tops, or with their arms or feet hanging out of or over the rear or side of any vehicle, or on sides of pickups or on tail gates.

3. When dismounting from a vehicle on a highway or road, the workers shall wait until the vehicle has proceeded before crossing the road unless the vehicle has stopped at its destination.

4. Workers wearing equipment which might injure a fellow worker (spurs, exposed sharp tools, etc.) shall remove such equipment before entering any vehicle in which workers are being transported.

5. Scuffling or horseplay while riding in any vehicle is prohibited.

6. Any hazardous condition or defect of a motor vehicle or unsafe practice of driver or workers riding in vehicles used to transport workers shall be reported to the employer, supervisor, or driver as soon as possible by any worker having knowledge of such conditions.

I. Heating the Vehicle.

Any heating units provided for the comfort of workers riding in vehicles used in their transportation shall be guarded or insulated to prevent workers from being burned by accidental contact. The use of hot water radiator type heaters is recommended.

1. If it is necessary to use stoves for heating, such stoves shall be securely attached to the bed of the vehicle and shall be equipped with doors which lock securely. Pipes and other attachments shall be securely fastened to the stove and to the vehicle. Pipes shall be either of continuous length or welded or riveted to the joints.

2. Heating facilities shall be arranged so that smoke, fumes or gases will not enter the vehicle.

J. Inspection, Testing, and Repairs.

1. All vehicles shall be kept in good repair and safe operating condition at all times. Vehicles with defective gears, tires, steering equipment or brakes shall not be used to transport workers.

2. Inspection or testing by the driver of all parts vital to the safe operation of vehicles, such as brakes, steering gear, tires, lights and signaling devices, shall be made at the beginning of each shift or each day, and as often as necessary during use. Any condition found then or at any other time which will prevent the safe operation of the vehicle shall be corrected before the vehicle is used.

3. Compartments for workers shall be kept in a clean and sanitary condition.

**R614-6-8. Elevators, Escalators, Aerial Trams, Manlifts, Workers' Hoists, Etc.**

A. This part will cover elevators of various types, dumbwaiters, escalators, moving walks, aerial trams, ski lifts, manlifts, personnel and material hoists or other mechanical applications of a similar nature when used to transport employees. It will not cover conveyors used to move material to and from storage, stacking or tiering machines, mine hoists, elevators, or skips.

B. Where local laws or ordinances have more strict regulations such laws or ordinances shall apply.

C. Elevators, escalators, and moving walks shall be designed, installed, operated, inspected, maintained and tested as specified in American National Standard Institute, A17.1, which is incorporated by reference.

D. Aerial tramways and ski lifts shall meet the provisions specified in American National Standards Institute Code B77.1 which is incorporated by reference.

E. Manlifts shall meet the provisions specified in American National Standards Institute Safety Code A90.1 which is incorporated by reference.

F. Material hoists and workers' hoists shall meet the safety provisions specified in American National Standards Institute A10.2 and A10.4, which is hereby incorporated by reference. For a hoist to meet the provisions to transport workers (A10.4) it shall also meet safety provisions, out of American National Standards Institute Safety Code A17.1 which is incorporated by reference.

G. Material hoists which do not meet the requirements for worker's hoists (A10.4) must be clearly marked "NO RIDERS" or a similar sign. All employees are required to enforce any restrictions against any workers riding such hoists.

H. Before any equipment covered by this part is installed or a major revision or remodeling begins on such equipment, the Administrator must be advised at least one week in advance of such installation, revision, or remodeling.

**R614-6-9. Filters and Centrifuges.**

A. Filters-General.

1. The necessary protective equipment shall be supplied and used, to protect employees from chemically harmful, hot or irritating materials.

2. Most filtration equipment depends on vacuum and/or pressure operation. Therefore, hazards produced by such vacuum or pressure shall be recognized and precautions and training given commensurate with such hazards.

3. Covers, ventilating hoods, feed chutes or other auxiliary equipment located overhead or suspended above the workers shall be adequately secured by recognized engineering standards and shall be inspected frequently to assure that corrosion wear or any other factor has not deteriorated the suspension system, making it unsafe.

4. When hoods or covers are movable and raised (suspended) so that workers must work under them, positive blocking or supports sufficient to support the load must be in place before the employee commences work under the hood or cover.

5. Floors, walkways, ramps, stairs, or other such equipment shall be adequate for the work performed and they shall have handrailings. Where the materials handled cause floors to become slick, anti-skid surfaces shall be provided.

6. When it is necessary to handle heavy components in excess of 100 lbs, as a regular part of the operation, a hoist shall be provided. In some cases, depending on the lifting position of the employee, a hoist may be necessary when the components weigh less than 100 lbs.

7. Any filter which is activated by pressure shall be equipped with a pressure gauge installed so as to indicate the pressure within the functional mechanism of the filter.

8. All electrical gear installed in connection with filtration must be grounded. Switch gear should be waterproof or installed above or away from the filtration area. All switch gear shall be properly identified.

9. Sumps or other floor openings shall be protected by covers or railings or other satisfactory barricades.

B. Plate and Frame Filters.

1. The filter shall be fitted for the maximum pressure which can be delivered by the feed pump.

2. Plates and frames shall be properly fitted and dressed so as to reduce leakage to a minimum.

3. Provisions shall be established to control leakage from squirting from the filter into the work area. A full cover is recommended.

4. The handles on plates and frames shall be securely attached. When wooden plates and frames are used, the handles shall be inspected and maintained so as to prevent their pulling out while being handled. Plates and frames with loose handles shall not be installed when reassembling a filter.

5. Spigots, when used, shall be adequately maintained.

6. When the filter cake is dropped into an agitator, hopper, extender chute, or tank, a grizzly or other effective means shall be provided to protect the employee from getting caught or falling into such equipment.

7. Hydraulic closers shall be fitted for the pressure encountered. Adequate blocks or other satisfactory method shall be provided so that the hydraulic pressure can be relieved during the operating cycle of the filter.

8. When a bar is used to tighten the filter, a hand guard or block or other satisfactory means shall be provided on the handle to protect the hands of the operator from being mashed against the floor or other contact surface.

C. Drum filters.

1. Driving machinery shall be guarded or totally enclosed.

2. Agitator drive arms shall be arranged or shall be guarded so that the employee is protected at scissor or pinch points.

3. Air lancing of the feed bath or air agitation shall be controlled. Goggles or face shields shall be worn when using an air lance.

4. Repulper agitators shall be protected by grizzly or other means so that hands or feet cannot come in contact with the blades.

5. Filters shall be maintained or a cover shall be provided so that the blow cannot pass through holes in the blanket in such a manner as to endanger workers. This shall be interpreted as meaning hazardous chemicals or hot solutions.

6. Belt discharges shall be guarded so that the nip points are enclosed or otherwise protected.

7. Employees shall not enter the inside of a drum until it is established that a safe atmosphere exists. A fan or other source of breathable air shall be supplied to insure an adequate oxygen supply inside the drum. An employee shall be available outside the drum in case of emergency.

D. Disc or Leaf Filters.

1. Driving mechanisms shall be adequately guarded or enclosed.

2. Adequate footing shall be provided when changing sectors, retainers or rods.

3. The filter shall be fitted for the vacuum and pressures encountered.

4. Disposal of filter cake shall meet the provisions outlined in Subsection R614-6-9.B.6.

5. If conveyor discharge is used, the conveyors shall meet the standards set forth in Section R614-5-2.

E. Pressure filters-Horizontal and Vertical tank type.

1. Pressure filter tanks shall be constructed under the standards established for unfired pressure vessels.

2. The filter shall be fitted for the pressures encountered.

3. All seal gaskets shall be maintained so as to preclude leakage.

4. Closure mechanisms shall be positive so as to prevent any possibility of the tank opening while under pressure.

5. Hinged lever type of closures shall be so arranged that when the handle passes center, when opening the filter, that the operator is protected from the thrust on the handle or it is reduced to a safe force which can be easily controlled.

6. Individual screw type closures shall all be in place and tightened so as to receive strain uniformly around the circumference of the tank before the filter is placed in operation.

7. No pressure tank type filter shall be opened until all pressure has been relieved and is open to atmosphere.

8. Filter media shall be cleaned in a safe manner. Due caution shall be exercised when using steam, hot water or compressed air.

F. Pan, Tray and Belt Filters.

1. The applicable provisions for all above-mentioned filters shall be followed.

2. The slurry feed shall be so controlled to prevent splashing onto the operator.

G. Vacuum and filtrate pumps and lines.

1. All drives shall be enclosed or guarded.

2. Lines shall be adequately identified.

3. When valves are installed in lines, they shall be accessible from floors, ladders or platforms provided, or shall have extension handles to the working area.

H. Filter aids and reagents.

1. Operators shall be knowledgeable concerning any additives used and the reaction which may be hazardous.

2. Chemicals which may be poisonous or severely irritating shall have such warnings posted along with procedure concerning their use and instructions in case of hazardous exposure.

3. The storage and handling of any chemicals used shall be in conformance with the Manufacturing Chemists Association data sheet concerning the material.

4. Steam and hot solutions or slurries shall be identified and where practical shall have the lines insulated in areas where employees may contact them.

I. Centrifuges.

1. The housing of all centrifuges shall be electrically grounded.

2. Operators of centrifuges shall be trained concerning the hazards of the operation.

3. Each centrifuge shall be equipped with an interlocking device that will prevent the cover from being opened while the machine is in operation or under power.

4. When the cover is bolted, the interlock will not be necessary, but a positive procedure of lockout and tagging shall be enforced.

5. Each centrifuge shall be adequately anchored and shall be equipped with a vibration cutout device. This must be maintained operable at all times. This requirement may be waived when the centrifuge has a full-time attendant.

**R614-6-10. Food Processing.**

A. Grinders and cutters.

1. Production rooms shall have adequate lighting throughout working and storage areas.

2. Machines and equipment shall be installed and used in the manner recommended by their manufacturer.

3. Machine operators shall be trained in the machine operation and especially in safety as concerns the particular machine or process.

4. Grinders shall be provided with suitable pushing bars. Supervision shall see that the pushers are used and that hands are not used to feed grinders.

5. Every power-driven food grinder of the worm type shall be so constructed, installed or guarded that the employee's fingers cannot come in contact with the worm. Examples:

a. Mechanical feeding.

b. Grating or bar guards over opening arranged in such a manner that the fingers cannot reach the worm.

c. Distance from the feed opening to screw in excess of an arm's length.

d. Restricting the size of the feed opening.

6. Under no circumstances shall pusher be used in lieu of a positive method of guarding.

7. Before cleaning food grinders, choppers, or similar powered equipment, the controls shall be locked and/or tagged in the off position.

8. Processing machines shall be installed at the proper height, or platforms installed, so the operator can accomplish the work without using stools or make-shift devices to stand on.

9. Chopper and blender bowls shall be guarded. When guarding is not practical, explicit instructions and supervision must assure that hands do not enter the bowl.

10. Machines having a plunger, piston or fast moving press type of operation shall be equipped with two hand controls, remote controls, interlocking devices, etc., to prevent the operator from being caught in the closure.

11. Knife changing or any repairs or changes which will permit the employee to be caught in the machinery or its driving mechanism shall not be done until the power controls are in the off position and/or tagged and locked.

B. Material and arrangement.

1. Machines shall be installed so as to give safe operation space and adequate access.

2. A system shall be established and maintained for waste and trash disposal so that a reasonable level of housekeeping may be maintained. Wastes shall not be allowed to accumulate so as to ferment or putrefy or otherwise become unsanitary and hazardous.

3. Excess material in the work places may be hazardous and shall be avoided.

4. Equipment shall be maintained so as to prevent metal edges from wearing sharp, tools from wearing or otherwise becoming hazardous, broken handles, etc. Buckets, pans, trays, etc., shall have a place and be in their place. Bails and handles on service containers shall be maintained safe.

5. Hoses shall be selected for the type of usage involved. Hoses shall be identified so that there is not an interchange of cold water hose into hot water, air or steam usage.

6. Hose couplings on air, hot water, and steam lines shall be secured by pinning, chains, or other satisfactory methods.

7. Hoses shall not be strung across work areas and left unattended. A rack, reel or other device shall be provided for hose storage.

C. Tools.

1. Hand knives and other sharp tools when carried, except in hand, shall be kept in a scabbard, case, holder or otherwise protected from accidental contact.

2. 29 CFR 1910 Subpart S adopts the National Electrical Code. This includes the grounding of all machines and electrical tools, and extension cords. Electrical installation must meet the provisions of these codes.

3. All portable tools shall have suitable guards that meet accepted codes. Employees using portable power tools shall be instructed and supervised in their proper use and care.

D. Refrigeration maintenance.

1. All mechanical personnel who are scheduled or designated to do any work on a refrigeration system shall be briefed on the entire job before beginning. The production supervisor and superintendent, safety department, and emergency personnel shall be notified that work is to be done.

2. Some of the basics that shall be checked before a refrigerant system is opened are:

a. Trace out piping.

b. Locate branch shut off valves.

c. Tag or lock out all switches, equipment, and valves that may affect the job.

d. Obtain all necessary safety equipment, and be sure that it is in operating condition.

e. Check to see that chemicals and gases are purged or evacuated from the system.

f. Note the effect of liquid and oil on pump-out operations.

g. Confer with associated personnel on safety precautions, safety equipment, standby safety equipment, emergency plans and first-aid measures.

h. Locate safety shower or deluge water supply.

i. Establish an evacuation route.

j. Check for location of nearest fire alarm, stretcher, and fire extinguisher. Know all emergency telephone numbers.

3. Before leaving the job make necessary checks to see that equipment is secured or safe to operate. If the job is not completed, post suitable warning, tag and lock controls, and notify supervisors of subsequent shift. Clean up all protective equipment.

E. Hot Processing.

1. Deep frying and similar processes where hot shortening or grease is handled or used must have adequate safety procedures established. Training in safe methods is essential and supervision must be assured that the safe procedures and methods are followed and that equipment used will function in a safe manner.

2. Hand transferring of hot grease or similar materials shall be done with extreme care, using gloves or pads to protect hands, and quantities not to exceed 1 U.S. gallon. Eye protection should be worn. Other employees shall be excluded from the hazard area.

3. Ventilation hoods over frying areas shall be cleaned sufficiently to keep them relatively grease free. A 10 B.C. fire extinguisher shall be available in the immediate area.

4. Lard rendering and filtration shall be so arranged, guarded, and protected as to prevent the workers from being exposed to the hazards of burns.

5. Sanitation and housekeeping measures shall be sufficient to protect the health and well being of the employees. Rotted or putrefied products and diseased animal products shall not be handled unless the employee is protected from skin contact. Other protection may be needed, and if so shall be used.

**R614-6-11. Boilers and Pressure Vessels.**

Boilers and pressure vessels shall meet the requirements of Section 34A-7-102.

**KEY: machinery, work-related diseases, boilers\***

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