

Grain Handling Compliance Checklist

This checklist has been developed to assist Missouri employers.

- Does the employer have an emergency action plan that conforms to 1910.38(a)?
- Are employees provided training prior to starting work and at least annually in the following:
 - Recognition of hazards related to dust accumulations and common sources of ignition
 - Safety procedures applicable to their jobs
 - Procedures for cleaning choked legs
 - Bin entry procedures
 - Housekeeping procedures
 - Lockout / Tagout procedures
 - Hot-work procedures
 - Preventive maintenance procedures
 - General Safety Precautions associated with the facility
- Does the employer issue a hot work permit for all hot work performed in the grain handling facility certifying that the requirements of 29 CFR 1910.252(a) have been met?
- Does the employer issue a bin entry permit for all entries into bins, silos, or tanks certifying that the precautions contained in 29 CFR 1910.272(g) have been met?
- For permit required confined spaces not addressed by 29 CFR 1910.272(g), does the employer conform with the requirements of 29 CFR 1910.146?
- Are all contractors working at the facility informed of hazards related to the contractor's work and informed of the requirements of the emergency action plan?
- Does the employer have a written housekeeping plan that establishes the frequency and methods determined best to reduce accumulations of fugitive grain dust on ledges, floors, equipment, and other exposed surfaces?
- Does the employer's housekeeping plan address priority housekeeping areas?
- If compressed air is used to blow dust from surfaces, are all potential ignition sources removed or controlled?
- Are receiving-pit feed openings covered by grates with openings no larger than 2½ inches?

The Division of Labor Standards' On-Site Safety and Health Consultation Program is a FREE and Confidential service to help Missouri employers comply with federal Occupational Safety and Health Administration (OSHA) regulations. For more information about our consultation service give us a call (573) 751-3403 or visit our web site. <http://www.dolir.mo.gov/safety/consultation/index.htm>

- Are fabric dust filter collectors equipped with a monitoring device that will indicate a drop in pressure across the face of the filter?
- Does the employer have a preventive maintenance program including regular inspections of: grain stream processing equipment, dust collection equipment including filter collectors, and bucket elevators?
- Are certification records maintained for each inspection performed in accordance with the maintenance program including the name of the person inspecting, the date of the inspection, and the identity of the equipment inspected?
- When dust collection systems are malfunctioning or operating below the designed efficiency, are they promptly repaired?
- Has the employer implemented procedures for the use of locks and tags to prevent the unexpected start-up or energization of equipment being serviced or maintained?
- Has a method of removing ferrous metal been provided for grain stream processing equipment? Are at least two means of escape provided for galleries?
- Is there at least one means of escape from tunnels for elevators constructed before Dec. 31, 1987, and at least two means of escape for elevators constructed after Dec. 31, 1987?
- Are direct heat grain dryers equipped with automatic controls that shut off the fuel supply in case of power or flame failure or the interruption of air flow through the exhaust fan?
- Are direct heat grain dryers equipped with automatic controls that shut off the flow of grain into the dryer if excessive temperature occurs in the exhaust of the drying section?
- Are dryers installed after March 30, 1988, located outside the elevator? Or if inside the elevator, protected by an explosion suppression system or located in an area separated from other areas by construction having at least a 1 hour fire resistance rating?
- Are employees prohibited from jogging bucket elevators to clear a choke situation?
- If belts and lagging are purchased after March 30, 1988, are belts and lagging in bucket elevators conductive with a surface resistance of 300 megohms or less?
- Are bucket elevators designed to allow access to the head pulley section and boot section to accommodate inspection of the pulley and belt and facilitate boot clean out?
- Are bucket elevator bearings mounted externally to the leg casing, or provided with sensors or other means to monitor the condition of the bearings? *[Unless exempted by 29 CFR 1910.272 paragraph (q)(8),]*
- Are bucket elevators provided with motion detectors which will shut down the bucket elevator if speed is reduced 20 % below the normal operating speed? *[Unless exempted by 29 CFR 1910.272 paragraphs (q)(8),]*
- Are bucket elevators equipped with a belt alignment monitoring alarm, or with a system that provides constant alignment adjustment of belts? *[Unless exempted by 29 CFR 1910.272 paragraphs (q)(7) & (q)(8),]*

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- Has the employer provided a means to prevent falls using guardrail systems or personal fall arrest systems on all open-sided floors or platforms 4 feet or more above adjacent floors or ground level?
- Has the employer provided a means to prevent falls from rolling stock?
- Are electrical equipment wiring methods and installations of electrical equipment approved for the hazardous (classified) location in which they are installed as specified in 29 CFR 1910.307?
- Are employees protected from coming in contact with energized electrical equipment?
- Is grain handling equipment and other equipment provided with guards to prevent employees from coming in contact with rotating parts such as belts, pulleys, chains, sprockets, augers, conveyors, etc.?
- Are continuous belt manlifts designed, inspected, maintained, and used in accordance with 29 CFR 1910.68?
- Are manlifts/personnel elevators (other than continuous belt manlifts) inspected, serviced, maintained, manufactured and operated in accordance with Safety Code for Elevators and Escalators, ASME A17.1?
- Are vehicles maintained in a safe operating condition?
- Are employees assigned to operate company vehicles properly trained in the recognition and avoidance of hazards associated with that task?
- Are LP-gas containers equipped with required safety devices, markings, located proper distances from buildings, and protected from physical damage in accordance with 29 CFR 1910.110?

This checklist identifies OSHA standards cited for grain handling facilities and is not a comprehensive listing. Please see OSHA General Industry Standards 29 CFR Part 1910 for complete requirements.

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Originally produced by TeamKansas OSHA (Wichita Area Office and Overland Park Alternate Duty Station) for Grain Handling Problem Solving Initiative to reduce injuries and death in the Kansas Grain Handling Industry

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PRECAUTIONS CHECKLIST

Inspect the proposed work area and check the precautions taken to prevent fire.

_____ Equipment shut down.

_____ Dust cleaned from floors, walls, and equipment within 35 feet of hot work area.

_____ Wet down combustible floors or cover with damp sand, metal, or fire retardant material.

_____ Remove Combustibles or Flammables within 35 feet of hot work area. If combustibles cannot be moved, cover with fire retardant material.

_____ Seal all floor, wall and equipment openings.

_____ If working on enclosed equipment, clean out combustibles.

_____ Block equipment to prevent hot sparks or slag from going into and traveling through equipment.

_____ Suspend non-combustible blankets beneath work to catch sparks and slag.

_____ Post a fire watcher with fire extinguisher during and for 30 minutes after completion.

_____ Inspect work area once every 30 minutes for signs of smoke or fire for 2 hours following completion.