

Equipment Safety on the Dairy Farm

Introduction:

According to the Bureau of Labor Statistics, there were 26 fatal work-related injuries on dairy farms per 100,000 full-time equivalent workers in 2009. One of the most common causes of death and serious injury on farms is related to the heavy equipment required to run a dairy farm. A high number of farming fatalities are due to tractor turnovers and tractor power take offs (PTO). In the milking parlor contact with equipment can result in electric shock, or hands and fingers caught in equipment.

Hazards and Prevention on the Dairy Farm:

Serious injuries and death can easily occur if dairy equipment is not used properly and kept in safe working condition. Missing guarding on tractors, loaders and feed trucks/wagons are contributing factors in serious injuries. Injuries can also occur when equipment is not properly locked or blocked out to prevent movement or exposure to moving parts during maintenance or repairs.

Follow safe work practices

It is important to develop safety rules, train employees to ensure understanding, and enforce the safety rules. Safe operating procedures include the following:

- Use Roll Over Protection (ROPS) and seat belts at all times.
- Do not modify tractors, loaders, feed trucks/wagons, etc, from the manufacturer's specifications. Only attachments and implements specifically designed for the equipment should be used.
- Maintain all guards and safety devices in place at all times. This includes PTO shields, PTO shaft guards, cowlings, safety switches, etc.

- Mount and dismount properly by using handholds, steps, and other devices at all times. Maintain three point contact when mounting or dismounting.
- Do not jump down from any tractors, trailers, or other equipment.
- Travel at safe speeds if required to drive on streets or farm roadways.
- Use flashers and warning lights at all times.
- Use slow moving vehicle signs attached to the equipment.
- Secure implements and if necessary, a pilot vehicle should be used if the equipment is very wide.
- Use only equipment specifically designed for work on slopes or inclines.
- Do not allow riders on tractors or equipment unless it has been specifically designed for additional workers.

Lockout/Blockout Procedures

Develop procedures and train employees on lockout blockout. Authorized employees should be trained to follow these procedures when completing maintenance and repairs on equipment. This training should occur when initially assigned and then periodically throughout the year. It is important to document training. The following points should be stressed with all employees:

- Only trained and authorized personnel should complete maintenance, service, or repair on any dairy/farm equipment.
- No one should attempt to clear jams or conduct any work on equipment unless they have been specifically trained.

- Lock or block out equipment to prevent movement or exposure to moving parts when service or repair work is conducted.

For additional information, refer to Zenith's Risk Management Bulletin 119, Lockout/Blockout.

Safety Inspections

Complete safety inspections of the equipment. A safety inspection checklist will assist in identifying hazards to eliminate them before an incident occurs, as well as documenting the inspections. The operator's manual is a useful resource to develop safety inspection checklists. The following points should be included on the checklist:

- Inspect all equipment before use and prior to each shift.
- Ensure Roll Over Protection (ROPS) is in place.
- Ensure flashers and warning lights are working.
- Ensure all guards are in place, including PTO shields, PTO shaft guards, cowlings, safety switches, and belts and chains.
- Inspect areas around the dairy or farm periodically to determine if hazards exist. These include: holes, washouts, location of canals and irrigation equipment, pumps, and roadway hazards. Electrical lines must be located and checked so that accidental contact does not occur.
- Ensure employees are not engaged in unsafe behaviors, such as riding on equipment or not using seatbelt with ROPS.
- Report all problems found, immediately to the supervisor; and if necessary the equipment should be taken out of service.

Hazards and Prevention in the Milking Parlor

The risk of electric shock exists when working in the wet or damp environment of a milking parlor. In addition, equipment, such as fans and compressors, has points in which a finger or hand can get caught. Often times employees fail to replace guards after making repairs or adjustments. Employees may try to

repair or adjust equipment quickly without locking out the power source of equipment. Every year employees have serious injuries due to failure of locking or blocking out the power source.

Follow safe work practices

It is important to develop safety rules, train employees to ensure understanding, and enforce the safety rules. Training employees on the following electrical and machine safety tips will prevent injuries in the milking parlor.

Electrical:

- Replace frayed extension cords and damaged plugs.
- Use an electrical system and equipment grounding that meet requirements of the National Electric Code.
- Use ground fault circuit interrupters with stock water heaters, power tools, and other equipment.
- Make sure fuse boxes, switches, and electrical outlets in wet areas are moisture proof.
- Maintain grounds on electrical equipment to prevent stray voltage.
- Store or stack rags and other debris away from electrical panels.
- Electrical panels should always have a clear space of at least three feet in front of them.

Housekeeping:

- Ensure equipment is always well maintained.
- Ensure floor drains in the equipment room, tank room, and milking area are covered and clear.
- Ensure hot water heaters have clear space around them and are not used to dry or hang clothes.

Lockout/Blockout Procedures

Develop procedures and train employees on lockout-blockout. Authorized employees should be trained to

follow these procedures when completing maintenance and repairs on equipment. This training should occur when initially assigned and then periodically throughout the year. It is important to document training. The following points should be stressed with all employees:

- Only trained and authorized personnel should complete maintenance, service, or repair on any dairy/farm equipment.
- Lockout or blockout equipment to prevent movement or exposure to moving parts when service or repair work is conducted.

For additional information, refer to Zenith's Risk Management Bulletin 119, Lockout/Blockout.

Safety Inspections

Complete safety inspections of the milking parlor. A safety inspection checklist will assist in identifying hazards to eliminate them before an incident occurs as well as to document all inspections. The following points should be shared with all employees.

- Inspect all equipment before use and prior to each shift.
- Inspect areas around the dairy or farm periodically to determine if hazards exist. These include: holes, washouts, location of canals and irrigation equipment, pumps, and roadway hazards. Electrical lines must be located and checked so that accidental contact does not occur.
- Compressors and other equipment should be properly guarded.
- Replace all guards after making repairs or adjustments.

It is important to remind employees to report all problems immediately to the supervisor; and if necessary the equipment should be taken out of service.

Summary:

Serious and sometimes fatal injuries can occur on a dairy. In many cases, equipment on the farm or milking parlor is the cause. The goal is to prevent the injuries from occurring. The first step is to train your employees on the hazards and safe work practices to ensure understanding; equally important is enforcement of safety rules. In addition, inspections can go a long way in identifying potential problems early so that the hazard can be eliminated. Remember, that every incident is predictable, preventable and unacceptable.

For additional information and assistance, contact your Zenith Safety and Health consultant.