Safety is Smart Business

Many farmers use grain-handling and storage bins to increase economic potential for their farming operations. However, an item that is frequently overlooked is the placement of bins, buildings and equipment near overhead power lines. The risk of electrocution around grain-handling and storage areas, particularly when using portage augers, is a serious threat to the health and life of farm workers.

The loss of life, health, production and money can result from not working safely. Following safety guidelines is just good business.

Two sets of guidelines detail the parameters for placement of overhead power lines in relation to grain-handling systems. The first is the National Electrical Safety Code (NESC), which applies to the primary electrical supply equipment and wires ahead of the transformer serving the farm. The second set of guidelines is the National Electric Code (NEC), which is concerned with the electrical wiring from the meter to the loads.

The NESC requires an 18-foot minimum vertical clearance from the highest point of the filling port of the grain bin to nearby high-voltage wires and a 55-foot minimum distance from the power line to the grain bin wall.

Changes to landscaping and drainage work can affect clearance heights of power lines, so remember to check these measurements regularly.

See inside brochure for diagrams showing minimum clearances.

Farm Safety Tips Near Bins

Filling grain bins. High-voltage power lines are not insulated, so it's important to remember to maintain an adequate clearance when using a portage auger, conveyor or elevator to fill your grain bin.

Moving equipment. When moving equipment, such as a hopper or scaffold, watch out for power lines. Maintain a 10-foot clearance to ensure safety.

Never try to move an electric line. Call Meeker Cooperative for assistance.

Contact with electric lines. If you are on a tractor or other vehicle that comes into contact with an electric line, follow these guidelines:

- Try to back away from the line
- If you can't back away, stay put and have someone call the Co-op to de-energize the line.
- If you must leave the vehicle, jump clear, putting both feet on the ground at the same time. Don't touch the ground and the vehicle at the same time. Shuffle your feet on the ground until you are safety away from the area.

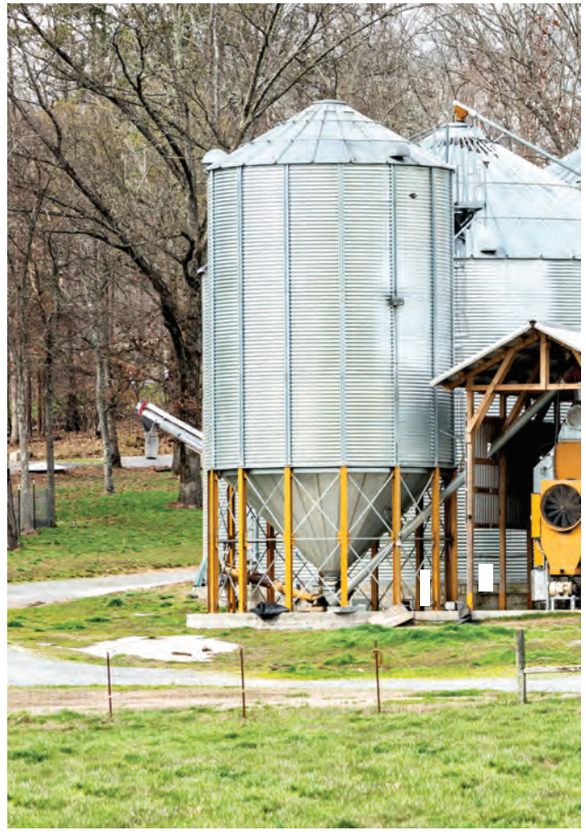
Do not enter grain bins during loading to avoid entrapment and suffocation.

Never work alone. Be sure to wear the proper safety equipment at all times.

Ventilate grain dust and clean regularly. Do not smoke or cause a spark that could ignite the dust.

Mold, fungi and chemical fumes from decayed grain can create a deadly atmosphere. Wear a mask, store grain at the proper moisture, and keep animal and insect infestations to a minimum.

Meeker Members: Before the installation of any additional farm buildings or grain bins, please contact the Cooperative!



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GRAIN BINS
Clearance Guidelines

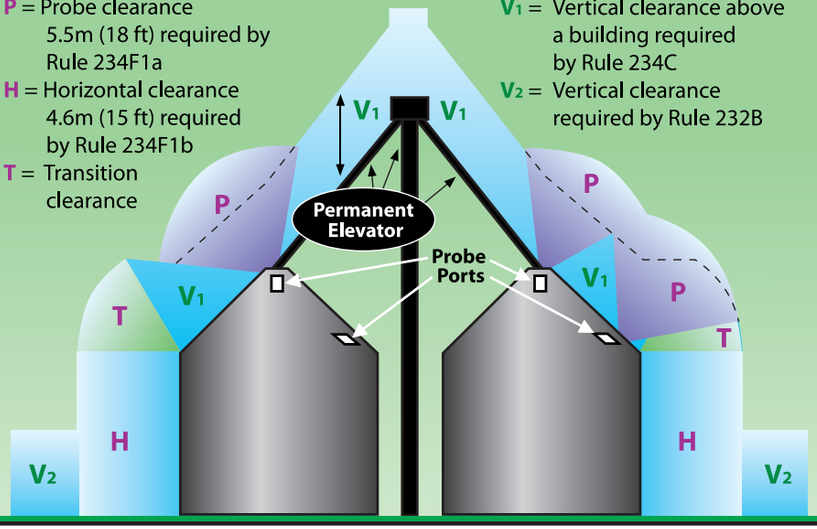
Protection from Electrocution

These Code guidelines and safety tips can help prevent injuries or death resulting from improperly-placed grain bins and/or other equipment that may come into contact with electric lines.

Guidelines and drawings from IEEE Std. 2012, "National Electric Safety Code."

Clearance envelope for grain bins filled by permanently installed augers, conveyors or elevators

P = Probe clearance 5.5m (18 ft) required by Rule 234F1a
H = Horizontal clearance 4.6m (15 ft) required by Rule 234F1b
T = Transition clearance
V_1 = Vertical clearance above a building required by Rule 234C
V_2 = Vertical clearance required by Rule 232B

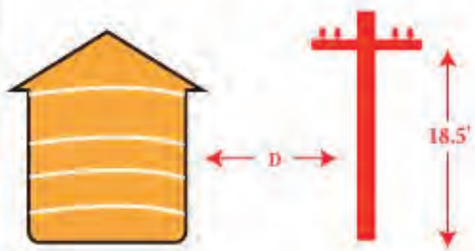


From IEEE Std. C2-2012, "National Electrical Safety Code."

DANGER: HIGH VOLTAGE!

FOLLOW FARM SAFETY RULES AROUND POWER LINES

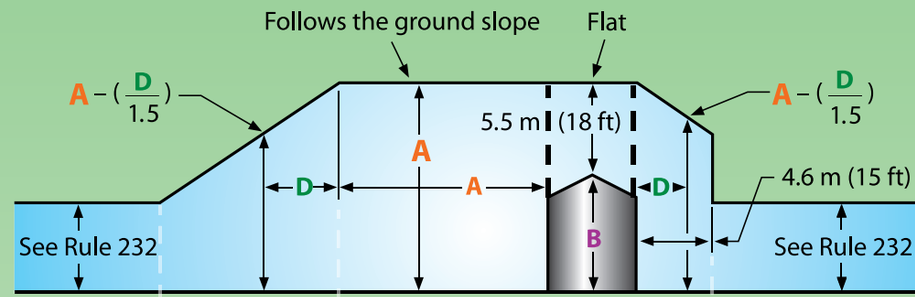
Height of grain structure	Min. dist. from line to bin wall
15 ft.	55 ft.
20 ft.	68 ft.
25 ft.	80 ft.
30 ft.	93 ft.
35 ft.	104 ft.
40 ft.	118 ft.
50 ft.	143 ft.
60 ft.	168 ft.
70 ft.	193 ft.
80 ft.	218 ft.



Based on a typical power line having a vertical clearance of 18.5 feet above the ground and a supply line phase to ground voltage of more than 0V to 22KV; National Electrical Safety Code Rule 232.

Clearance envelope for grain bins filled by portable augers, conveyors or elevators

ELEVATION



B = Height of highest filling or probing port on grain bin
A = B + 5.5m (18 ft)
D = Variable horizontal dimension

In the area of sloped clearance, the vertical clearance is reduced by 300mm (1 ft) for each additional 450mm (1.5 ft) of horizontal distance from the grain bin.

PLAN VIEW