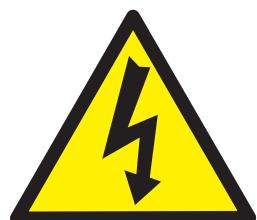


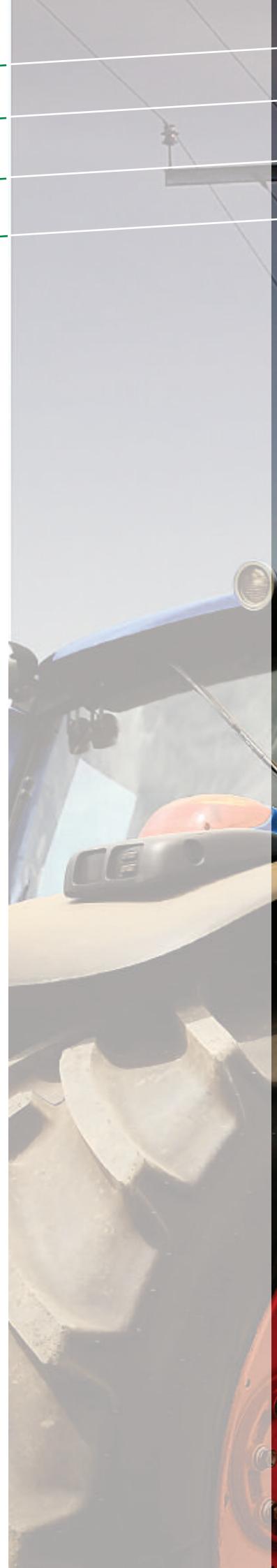


Guidelines for Safe Working Near Overhead Electricity Lines in Agriculture



Our vision:

A national culture where all commit to safe and healthy workplaces and the safe and sustainable management of chemicals





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1. Introduction

Overhead power lines on Irish farms pose a serious risk to farmers, contractors and anyone in the vicinity of high machinery passing close to these lines. Several people have been killed and many more injured as a result of making contact, or near contact, with overhead electricity lines during agricultural work. Machinery (such as forage harvesters, combine harvesters and tipping trailers), equipment (such as ladders) and activities (such as stacking) are often involved. Many 'near misses' also arise that are not reported and where no one is injured.

In Ireland, more so than in many countries, houses and other premises are spread throughout the countryside. It follows from this that Ireland has more than the average length of overhead electricity lines traversing the countryside per customer. This increases the likelihood of higher items of agricultural machinery making dangerous contact with overhead electricity lines while operating on Irish farms.

If a piece of machinery or equipment comes into contact, or near contact, with an overhead line, then electricity may be conducted through the machine or equipment to earth. It may also pass through anyone who is touching the machinery or equipment. Electricity can arc, i.e. jump across gaps, so a person, or a piece of machinery, does not have to touch the line to cause a serious or fatal shock.

It is not only equipment and machinery that present a danger. A jet of water or liquid slurry, a piece of metal or a fishing rod, for example, can cause a discharge of electricity and a high risk of electrocution or severe electrical burns if they come into contact, or near contact, with an overhead electricity line.

Such serious electrical incidents often arise from a combination of factors. For example, you may be tired and less alert than usual, so you forget to check for overhead lines in the area where you are working. Or you may be in a hurry to get a job done, so you take short cut and don't bring down a high-lift trailer before you move it.

One of the biggest problems is that people simply do not notice overhead electricity lines. Lines that run across the middle of a field are clearly visible, but if you pass them every day you may stop being aware of them. Lines that run parallel to hedges or along the edge of woodland or forests tend to blend into the scenery and can be particularly difficult to spot. Lines that run parallel to, or under, other lines are also hard to see.

Everyone working in agriculture should know, understand and follow safe procedures when working near overhead electricity lines.



2. Line Heights

There is usually a significant distance (clearance) between overhead lines and the ground. The heights of overhead lines vary according to the voltages – generally, the higher the voltage, the higher the clearance.

The heights of lines can also vary according to the current being carried in the line and the temperature of the line. If the line heats up as a result of hot weather and/or the electrical current that is flowing through it, the line will have a tendency to sag. This sagging brings the line closer to the ground, which increases the possibility of inadvertent contact.

The level of the ground beneath lines may be raised over time, decreasing the distance between the lines and any machinery passing underneath and therefore increasing the associated danger.

Caution is also necessary to ensure that support structures, including poles, stay-wires and pylons, are not damaged during agricultural work such as harvesting and excavations.

2.1 Standard Heights

As general guidance, the ground clearance of overhead lines crossing farmland and areas accessible to vehicles and agricultural machinery will accommodate the safe passage of machinery and equipment up to a maximum height of 4 metres (13 feet). This maximum height may be reduced in situations where ground levels have been raised or where damage has occurred to poles, stay-wires, cross-arms, etc.

When planning to carry out work in the vicinity of overhead electricity lines, any concerns arising with regard to the condition of the lines, changes in ground levels, reduced clearances, etc. should be referred to ESB Networks. In situations where machinery or equipment that will exceed 4 metres in height is to be used, then it may be necessary to contact ESB Networks to assess and get advice on the actual site-specific safe clearance available. Where the available safe clearance is less than the proposed machinery height, it may be feasible to raise or divert the overhead line.

A note of these clearances should be recorded on a map of the farm showing the overhead lines, which should be referred to any time you plan to use high machinery. This information can also be used to brief any contractors that will be working in the vicinity of these overhead lines.



Figures 2.1 and 2.2 show how ordinary items of equipment can easily reach, and go beyond, the height of a typical overhead line. In many cases the height of lines will be significantly lower than the lines shown in these diagrams and plant may be significantly higher.

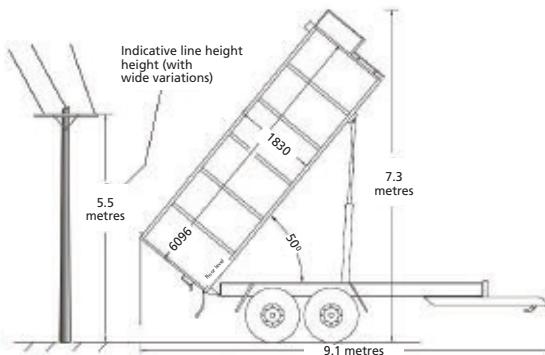


Figure 2.1 Heights comparison: Twin axle tipping trailer and typical overhead line

Figures 2.3 and 2.4 show how a forage harvester in operational mode can readily make contact with a typical overhead line. Again it is worth noting that 5.5 metres is by no means a minimum height for an overhead line, rather it is an indication to illustrate relative heights.

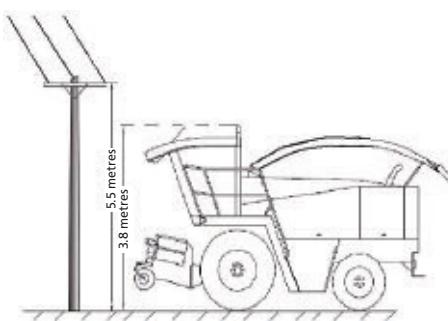


Figure 2.3 Height comparison: Forage harvester (transport position) and typical overhead line

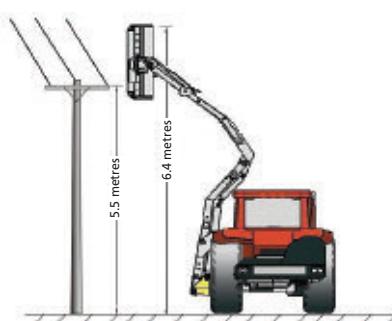


Figure 2.2 Heights comparison: Hedge cutter and typical overhead line

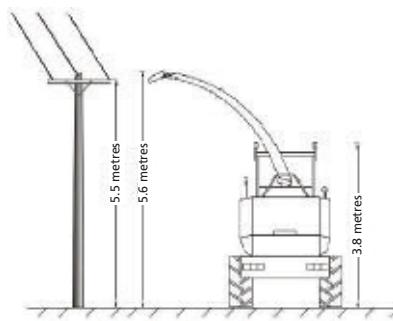


Figure 2.4 Height comparison: Forage harvester (chute at maximum tilt) and typical overhead line



2.2 ESB Networks Maps

Copies of maps showing the position of the main overhead electricity lines crossing your property can be obtained free of charge from ESB Networks' Central Records Office.

ESB Networks' contact details for emergencies, maps, safety materials, advice on available safe clearances and line alteration requests are given in Appendix 2.

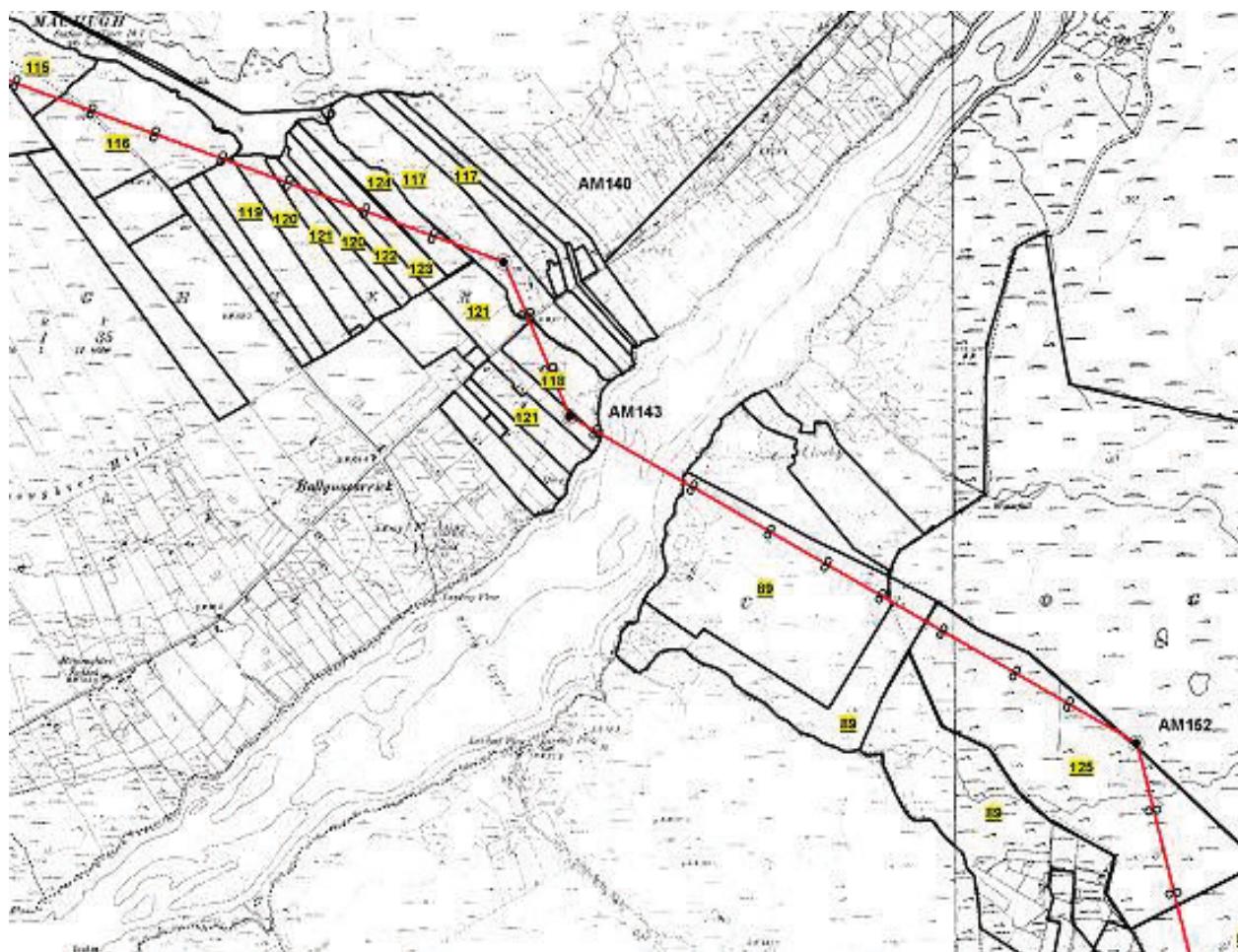


Figure 2.5 Sample overhead line map



3. Responsibilities

The Safety, Health and Welfare Act 2005 places responsibilities on everyone concerned with work activities, including the self-employed (such as farmers), employers and employees.

Regulation 93 of the Safety, Health and Welfare at Work (General Application) Regulations 2007 sets out the specific precautions to be taken with regard to overhead lines.

In accordance with the 2005 Act and the associated Regulations, the farmer, any outside contractor, workers and ESB Networks all have legal responsibilities to prevent dangerous contact with overhead lines.

Depending on the situation, the control measures outlined in this document will apply to the party in a position to implement the precautions specified.

4. Assess the Risks

When assessing the risks from overhead electricity lines, consider these four key questions:

- What are the risks?
- Who could be affected by them?
- Do the existing control measures remove or significantly reduce the risks?
- Can anything further be done?

Once you have completed your risk assessment it is important to plan any changes so that they are implemented effectively and before any work is carried out.



5. Reduce the Risks

Good management will reduce the risk of accidents happening. By planning carefully for all events, including all deliveries to the farm, and by putting controls in place, workers, contractors and visitors should not come into contact, or near contact, with overhead electricity lines.

The following guidelines will help you determine which controls you should put in place.

5.1 Think Ahead

- Only purchase or select suitable machinery.
- Use machinery and equipment safely.
- Know the safe operating clearances.
- Plan your work so it avoids high-risk areas.
- Use alternative access points and routes that avoid overhead lines.
- Keep an eye on children and visitors on your land – a kite or a fishing rod used close to a line could set up a lethal circuit.

5.2 Map Overhead Electricity Line Routes

- Know your area.
- Find out the routes and operating voltages of overhead electricity lines running across your land or near the boundaries. ESB Networks will supply map records on request – see Section 2.2 and Appendix 2.

- Mark routes and voltages on the farm map.

5.3 Measure Your Machinery

- Find out the maximum height and vertical reach of all your machinery and equipment (from machinery handbooks where possible) and of all machinery and equipment used by contractors.
- Consider the risks associated with overhead lines when buying new or used equipment.

5.4 Inform People

- Make sure everyone knows what they are doing and the risks involved.
- Train all staff to be aware of the risks associated with overhead lines.
- Make sure contractors are aware of the location of lines before they come onto your land. Give them the information on safe clearances and find out if their machinery and equipment are safe to use near the overhead lines on your farm. Point out the locations of greatest risk.
- Put up signs for anyone else who may be in the vicinity, for example materials delivery personnel, outside contractors and others who might be at risk.



5.5 Consult ESB Networks

- Contact ESB Networks for free information and advice (with supporting literature) about the precautions and safe working practices to be followed near overhead lines – see Appendix 2 for contact details.
- Ask ESB Networks to help you plan access routes to avoid lines and to advise you on what to do if it is necessary to work close to the lines.
- Consult ESB Networks if you need to check your line clearances or have lines raised. Figure 5.1 shows ESB Networks personnel undertaking line height measurements.

5.6 Re-Route Overhead Lines

- You may want to consider re-routing or burying the overhead lines in certain locations.

Consult ESB Networks.

DO NOT attempt to do this yourself.

- Creating alternative routes and access points may be a more cost-effective solution.



Figure 5.1 Line height measurement

5.7 Limit Access Using Barriers and Goalposts

- It may be necessary, due to the nature and duration of the work, to use ground-level barriers and height-restricting goalposts to limit access and to help control the hazard of working near overhead lines. Such measures are commonly used in areas where work is carried out regularly, such as yards, livestock feeding areas or storage pits.
- Goalposts should not exceed a height of 4.2 metres, unless specifically agreed with ESB Networks for the particular crossing point involved.
- Barriers should run parallel to the overhead line at a minimum horizontal distance of 6 metres on plan from the nearest overhead line conductor wire.
- Check the poles carrying the overhead lines and report any abnormalities to ESB Networks.

5.7.1 Ground-Level Barriers

Ground-level barriers must be easy to see. They can be constructed using:

- Posts and rail or post and wire fences.
- Large steel drums, such as 182 litre oil drums, brightly painted, filled with rubble and placed at frequent intervals.
- An earth bank at least 1 metre high.
- Timber baulks that act as wheel stops.

5.7.2 Height-Restricting Goalposts

Height-restricting goalposts should be used in conjunction with ground-level barriers to restrict the locations where machinery or other plant and equipment can cross safely under an overhead line.

Goalposts should be made from rigid, non-conducting, high-visibility material, such as Red 125 millimetre PVC underground electricity ducts/pipes or timber painted to achieve a high-visibility effect.

5.7.3 Additional Measures

There may be occasions when work must be carried out beneath overhead lines, for example the laying of pipes using an excavator or the installation of fencing/gate posts using a post driver. Before starting such work the farmer or contractor should carry out a site-specific risk assessment, taking into account the maximum potential height that can be reached by the plant or equipment that will be used. If the equipment is capable of reaching a height of more than 4 metres, then further safety control measures will need to be put in place. Barriers and goalposts have the potential to mitigate the risks but additional safety measures may also be necessary.



6. Construction Activities Near Overhead Lines

The risks associated with the carrying out of construction-related activities in the vicinity of overhead electricity lines are generally higher than the risks associated with typical agricultural activities. The guidelines and control measures required for such construction activities are consequently more stringent and onerous. These guidelines for Safe Working Near Overhead Electricity Lines in Agriculture do not cover construction-related activities on farms or other agricultural environments.

The appropriate guidelines for all construction-related activities are covered in a separate HSA-approved code of practice entitled ESB Networks Code of Practice for Avoiding Danger from Overhead Electricity Lines. This code of practice may be downloaded from the website of the HSA or ESB Networks (see www.hsa.ie or www.esb.ie/esbnetworks). Printed copies are available free of charge from ESB Networks – see enquiry details in Appendix 2.

7. Machinery

Loaders and other lifting equipment can extend far enough to make contact with overhead lines. Take extra care when using any of the following equipment:

- Front loaders
- Silage harvesters
- Bale elevators
- Lorry-mounted cranes/loaders
- Tractors
- Teleporters
- Combine harvesters
- Cherry pickers
- Hedge cutters
- Crop sprayers
- Excavators
- Tipping trailers and bale trailers
- Tipper trucks
- Post drivers.



Figure 7.1 Hedge cutting beneath overhead electricity lines



Figure 7.2 Bales on front loader beneath overhead electricity lines



Figure 7.3 Forage harvester at risk of contact with overhead electricity lines



7.1 Risks

- Moving equipment or machinery when extensions are raised could bring them into contact, or near contact, with overhead lines.
- Tall moving machines over uneven or rough ground could cause booms to sway or bounce and reduce the normally safe clearance distance from overhead lines.
- Risks increase at night or in fog or heavy rain when poor visibility makes it difficult to see the overhead lines.

7.2 Controls

- Plan access routes to the place where you are working that avoid overhead lines.
- If high machines frequently work near overhead lines, for example in the farmyard, consult ESB Networks about burying, diverting or raising the lines.
- Know the full height of equipment and machinery when all parts are raised to their full extent. Check these heights against the line safe clearances marked on the farm map so that you know where the particular areas of risk are located.
- Tell workers about the potential dangers and safe working practices. For example, to avoid making contact with an overhead line, drivers must retract the booms of telescopic handlers and keep them as close to the ground as possible when the vehicle is moving; however, remind drivers that carrying loads at a low level may reduce their visibility and make it more difficult to see pedestrians in the vicinity of the machine.

8. Radio/CB Aerials

Tractors and combine harvesters are sometimes fitted with aerials. There have been a number of injuries caused by contact between aerials and overhead electricity lines.

8.1 Risks

- Long aerials can extend high enough from cabs for them to come into contact with overhead lines.
- The clearance beneath overhead lines and the ground may be difficult to estimate and drivers may be unaware of how close their aerial is to the lines.

8.2 Controls

- If CB radio or radio telephones are being used, fit short aerials.
- Check site maps for the location of overhead lines and avoid driving beneath them and especially where the safe clearance height is at its lowest, which usually occurs towards the middle of the overhead line span.
- Make sure anyone driving farm machinery or equipment knows where the overhead lines are and what they must do to avoid making contact with them.

9. Rain Guns/Slurry Spreaders

A jet of water or slurry from a rain gun can be thrown a distance of about 70 metres and can reach a height of 15 metres. Some rain guns are fitted with devices to break up the jets of water.



Figure 9.1 Jet-breaker in operation

9.1 Risks

- Jets of water can conduct electricity, create a circuit and make equipment live. If you touch this equipment, the electricity will pass through you to earth.
- Jets of water that are not being broken up before they come into contact with overhead lines could cause the equipment to become live.
- Jet-breaker devices can become blocked and stop working leading to a continuous flow of water and increasing the possibility of electricity passing through to the nozzle.
- Slurry is even more dangerous because it

is a better conductor of electricity than water.

- Slurry deposited on conductors and insulators can cause the breakdown of insulation and lead to flashover.

9.2 Controls

- Where it is practicable to do so, a rain gun should travel parallel to overhead lines, not beneath them.
- Ensure that water or slurry is kept away from overhead electricity lines. Spreaders should not come within 30 metres of an overhead line.
- If it is absolutely necessary for a rain gun to travel beneath an overhead line, consult ESB Networks to agree on the relevant precautions to be taken.
- Check the overall height of the machine. If it is over 4 metres, plan routes and use marker posts and height-restricting goalposts when it is being moved so that operators do not make contact, or near contact, with overhead lines.
- Make sure jet-breaker devices are working properly. Ring nozzles are more effective than taper nozzles in breaking up jets before they reach overhead lines.



10. Long-Boom Irrigators

The overall length of a boom on long-boom irrigators can be up to 80 metres and its height may be up to 5.6 metres. Some booms can be folded and raised vertically for easy movement.

10.1 Risks

- When a boom is moved, particularly if it is raised vertically, it could come into contact with overhead lines.
- Moving over uneven or sloping ground could cause the tip of the boom to swing about and this could bring it into contact with lines.

10.2 Controls

- A minimum clearance of 15 metres across the ground from the tip of the boom to the nearest overhead line is recommended.
- If these machines are used near overhead lines, agree routes and operating procedures with ESB Networks.
- Access routes should be marked on the farm map and should include routes for moving booms both between storage and field sites and along the irrigation routes.
- When a machine is being moved or used it should be kept under close observation and control.
- Booms should have a nylon or polypropylene control rope at each end, with someone holding it.
- If a boom is assembled or dismantled on site, this should be done well outside the 15-metre clearance area.
- Make sure everyone knows the safety procedures.
- Check the jets are not near overhead lines and that they are fitted with jet-breaker devices.

11. Low-Precipitation Sprinklers

11.1 Risks

- Contact with overhead lines when the pipes are being transported and put into position.
- Sprinklers being positioned too close to electricity lines and equipment so that water comes into contact with them.

11.2 Controls

- Plan the layout for sprinkler systems so they do not run close to overhead lines.
- Do not store pipes under or close to overhead lines.
- Some pipes are so light that even children could lift them. Never leave pipes where children or the public can gain access. Keep pipes chained up if possible.
- Always move pipes horizontally and as near to the ground as possible, using two people to carry them.
- Make sure everyone knows about the risks, where the lines are and safe working and storage procedures.

12. Fencing (Including Electric Fencing)

12.1 Risks

- If fencing wire is being stretched under or close to an overhead line it could spring upwards and come into contact with the lines, setting up a live circuit.
- Fencing across steep valleys could actually take you above the overhead lines and there is a high risk that the fence wire would come into contact with the line.
- Fences can become potential killers if an overhead line falls on top of them.



12.2 Controls

- Check the farm map for the routes of overhead lines.
- Never lay a fence on your own.
- Be aware of the potential dangers of fencing in valleys.
- Make sure everyone is aware of the risks when laying fences, and where the lines are.
- Always keep the wire under control – this is particularly important in steep valleys where clearance may be reduced.
- Avoid erecting electric fences closer than 6 metres to an overhead line.
- If a fence must cross under an overhead electricity line, then ideally it should be placed close to a pole or other supporting structure (e.g. 1 to 2 metres from it) and should cross at right angles to the overhead line.
- Never use barbed wire for an electric fence line as it could trap a person or animal, which would be very dangerous.
- Erect suitable warning notices on electric fences that are adjacent to public roads, footpaths or right-of-ways.

13. Ladders and Other Long Conducting Objects

Modern ladders made of aluminium are lightweight and easy to manoeuvre, so it is tempting to move them without retracting them. Other lightweight and long conducting objects, such as aluminium-handle bull floats, copper or other metal piping, metal eave guttering and steel reinforcing bars, present similar risks to aluminium ladders.

13.1 Risks

- When extended and held vertically, a ladder may be long enough to make contact with an overhead electricity line. The person carrying it could receive a severe electric shock, which may be fatal. The same risk applies to other long conducting objects.

13.2 Controls

- Make sure everyone works safely and knows that they must always reduce ladders to their shortest length before moving them.
- Always carry ladders and other long conducting objects horizontally, and below shoulder level, i.e. close to the ground.
- Do not leave ladders or long conducting objects where children could climb or move them, particularly near overhead lines.



14. Stacks and Temporary Structures

Temporary structures such as potato boxes, stacks of bales, silage pits and manure heaps have to be sited somewhere. Farm and contractors' vehicles have to be parked. A particular job may require you to erect temporary buildings.

Such temporary structures should not be sited beneath or close to overhead lines as this reduces clearances. Remember, direct contact does not have to be made – electricity can flash over if machinery or equipment comes close to overhead lines.

14.1 Risks

- Depending on their location relative to overhead lines, anyone who climbs on top of a stack, machine or a structure may be closer to overhead lines and could come into contact with them or risk injury from flashover.
- Mechanical equipment may be at risk from flashover while working at the stack or on any temporary structure.

14.2 Controls

- Use the farm map showing the routes of overhead lines as the basis for positioning stacks or temporary structures.
- Before positioning a stack or temporary structure, think about the location of overhead lines and plan the structure well away from them. Do not site stacks or temporary structures in an area where machinery has to travel beneath overhead lines to get to them.
- Keep records of the maximum height of machines and their loads. Use this information when planning routes for moving machinery near overhead lines.
- Make sure everyone knows to keep stacks and lifting and handling equipment a horizontal distance of at least 9 metres from an overhead line.



15. Fallen or Low-Hanging Wires

Bad weather (e.g. high winds, ice and snow, freezing rain), fallen timber or other wind-blown debris can damage electricity lines and bring overhead wires down. Always assume that fallen or low-lying overhead wires are live until ESB Networks informs you that the power has been switched off. Even if an overhead line appears not to be live, the auto re-close system may switch it on again automatically until the system is de-activated by ESB Networks.

15.1 Risks

- Damaged cables and broken conductors can present risks to people and livestock.
- An overhead line trailing on the ground is probably still live. Contact with it could prove fatal.
- A loose power line may be lying somewhere difficult to see, for example in a tree or hedge.
- There is a high risk of accidental contact.
- Debris could be hanging from the line.
- The line could have fallen onto a wire fence, making the fence live over a considerable distance.

15.2 Controls

- Make sure everyone knows never to approach a loose or trailing overhead line.
- After a storm or high winds, when there may be a risk that power lines have been brought down, check the route of all overhead lines. Have ESB Networks' 24-hour emergency telephone number readily available, preferably on your mobile phone – 1850 372 999.
- Contact ESB Networks' emergency number, restrict access to the area if necessary and await the arrival of the repair crew. Always assume a cable is live unless ESB Networks' personnel are present and have confirmed that it has been switched out and earthed.



16. Overhead Line Proximity Detectors

On taller machinery (higher than 5 metres) such as combine harvesters and forage harvesters/tractors that operate high equipment capable of making contact with overhead lines, strong consideration should be given to the fitting of overhead line proximity detection equipment. The assessment on fitting line detection equipment should focus on the prevalence and height of lines in the locations where the machinery is to be used, whether exclusively on the machine-owner's farm or on other farms as well.

Overhead line detection devices operate on the principal that all alternating current transmission systems in overhead networks generate an electromagnetic field surrounding the transmission line. This electromagnetic field can induce electrical current in a detection device, which can, in turn, be used to indicate the presence of the electromagnetic field (and hence the overhead lines) and activate an alarm system to warn of the presence of the overhead lines. This principle is used generally in all devices intended to detect overhead lines in the vicinity.

A line detection device is usually fitted in the cab of the equipment, with an aerial mounted on the outside.

Suppliers of agricultural machinery (reaching heights greater than 5 metres either occasionally or continuously) should consider offering the option of fitting overhead line proximity detectors on machinery, given that machinery of this nature has the potential to make contact with overhead power lines.



17. Cab Signages

As a reminder to all drivers, a farmer, contractor or supplier should fit warning signs in the cabs of any equipment capable of making contact with overhead lines. These signs (see Figure 17.1) are available free of charge from ESB Networks (Tel. 1850 372 757) and can be fixed to the appropriate part of the equipment to remind the operator of the risks of approaching overhead lines.



DANGER OF DEATH
IF YOUR MACHINE CONTACTS AN ESB LINE:
(a) STAY IN CAB AND CALL ESB NETWORKS
(b) KEEP OTHERS AWAY
(c) IF MACHINE CATCHES FIRE - JUMP CLEAR
IN AN EMERGENCY
CALL 1850 - 372 - 999
ESB Networks



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IN AN EMERGENCY
CALL 1850 - 372 - 999
ESB Networks

Figure 17.1
Typical cab stickers
(available
free from
ESB
Networks)

18. If the Worst Happens . . .

If a machine or its attachments come into contact with an overhead line, it could be fatal for anyone who touches the machine. Do not rely on rubber tyres or rubber-soled boots for protection – they will not insulate against a high-voltage shock. Tyres can burst into flames and boots can be destroyed. Figures 18.1, 18.2 and 18.3 illustrate the various steps that should be taken in the event of a hit on an overhead electricity line.



Figure 18.1

18.1 Keep Clear

The driver of a vehicle that comes into contact with overhead lines will usually remain safe in the cab of the vehicle. People are at risk if they make simultaneous contact with the vehicle and earth. Do not touch the vehicle or anything attached to it.



Figure 18.2

18.2 Get Help

You, or someone else, should contact ESB Networks' emergency number (1850 372 999) and ask for the power to be disconnected immediately. If you have a mobile phone or CB radio, use that. You should have ESB Networks' emergency telephone number on a warning sticker in the cab or preferably on your mobile phone.

18.3 Jump!

If you have to leave the cab, jump well clear so that no simultaneous contact is made between you, the vehicle and the ground. Land on your feet and do not touch the ground with your hands. Move away at once using short steps or bunny hop with both feet together. Remember that the line may still be live or it may automatically be switched on again at any time and you may be close enough to be electrocuted.

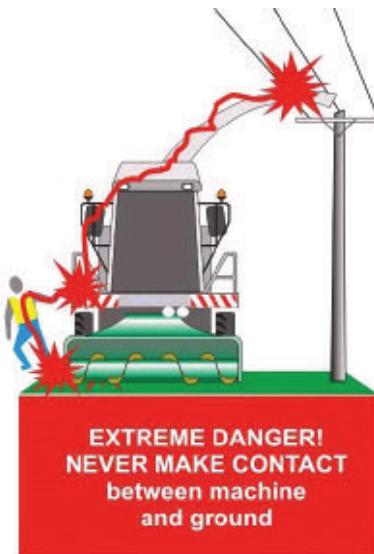


Figure 18.3

18.4 Stay Clear

Do not go back to the vehicle, even if you think it is safe to do so. It may still be live. Nobody should approach the vehicle until ESB Networks has confirmed that it is safe to do so.

18.5 Safe Operation

If the vehicle is not tangled with the overhead line and if it can still be operated, back it carefully away until contact is broken. It may also be possible to lower a tipper or withdraw a high-lift attachment, taking extreme care not to break the line as it may fall onto your vehicle. Do not climb out of the vehicle or attempt to operate the vehicle while standing on the ground outside the vehicle.



19. Further Reading

ESB Networks

Farm Well Farm Safely

Health and Safety Authority

Code of Practice for Preventing Injury and Occupational Ill Health in Agriculture

Health and Safety Executive (UK)

Avoidance of Danger from Overhead Electric Power Lines, General Guidance Note GS6 (3rd edition), HSE Books, 1997, ISBN 0 7176 1348 8

Farmwise: Your Essential Guide to Health and Safety in Agriculture, Booklet MISC165, HSE Books, 1999

Handling and Stacking Bales in Agriculture, Leaflet INDG125(rev1), HSE Books, 1998 (single copy free)

Safety in Working with Lift Trucks, HSG6 (3rd edition), UK Health and Safety Executive Books, 2000, ISBN 0 7176 1781 5

Working Safely Near Overhead Power Lines, Agriculture Information Sheet AIS8 (rev2), HSE Books, 2000

Farm Energy Centre (UK)

Handbook FEC2107 (4th edition), 1998, ISBN 1 847290 11 3, Farm Energy Centre, FEC Services Ltd, NAC, Stoneleigh Park, Kenilworth, Warwickshire CV8 2LS, United Kingdom,

Appendix 1: Safety Checklists

Safety Checklist for Overhead Electricity Lines in Agriculture

LANDOWNER'S CHECKLIST	Yes	No	CONTRACTOR'S CHECKLIST	Yes	No
Are there overhead electricity lines on the land where work is to be carried out?	<input type="checkbox"/>	<input type="checkbox"/>	Have I assessed all my equipment as to its potential to make contact with overhead lines?	<input type="checkbox"/>	<input type="checkbox"/>
Are there lines crossing yards, storage or loading/unloading areas could be hit?	<input type="checkbox"/>	<input type="checkbox"/>	Have I fixed safety warning stickers in the cabs and the outside of forage harvestors, combines and anything else that could hit, or tow something that could hit an overhead line (including trailers)?	<input type="checkbox"/>	<input type="checkbox"/>
Have I contacted ESB Networks (phone 1850 372 757) to have the lines moved?	<input type="checkbox"/>	<input type="checkbox"/>	Have I assessed the local area and travel routes, where I operate machinery, for overhead lines?	<input type="checkbox"/>	<input type="checkbox"/>
If lines can't be moved, does my work involve equipment which could hit a line?	<input type="checkbox"/>	<input type="checkbox"/>	Have I advised all my workers of the dangers of overhead lines?	<input type="checkbox"/>	<input type="checkbox"/>
Have I mapped lines on my farm that could be hit?	<input type="checkbox"/>	<input type="checkbox"/>	Do I routinely check with the landowner for the location of overhead lines before starting work with high equipment, including requesting maps of overhead lines?	<input type="checkbox"/>	<input type="checkbox"/>
Have I fixed safety warning stickers in the cabs and the outside of tractors, forage harvestors, combines and anything else that could hit, or tow something that could hit an overhead line (including trailers)? (Phone 1850 372 757 for stickers issued free of charge)?	<input type="checkbox"/>	<input type="checkbox"/>	Have I informed ESB Networks (Phone 1850 372 757) and the landowners where overhead lines pose an unacceptable risk?	<input type="checkbox"/>	<input type="checkbox"/>
Will I need an outside contractor to work on land where an electricity line is situated?	<input type="checkbox"/>	<input type="checkbox"/>	Have I ensured that I don't have to tip any loads beneath an overhead line?	<input type="checkbox"/>	<input type="checkbox"/>
Could the contractor's equipment hit or come close to the line?	<input type="checkbox"/>	<input type="checkbox"/>	Have I assessed the need to install an overhead line detector on my equipment?	<input type="checkbox"/>	<input type="checkbox"/>
Have I fulfilled my duty as a landowner, to advise the contractor of the presence and the hazard of overhead electricity lines?	<input type="checkbox"/>	<input type="checkbox"/>	Have I considered the danger of operating in the dark, where overhead lines are located?	<input type="checkbox"/>	<input type="checkbox"/>
Do I and my employees know what to do if equipment we're driving hits an overhead line?	<input type="checkbox"/>	<input type="checkbox"/>	Do I and my employees know what to do if our equipment hits an overhead line?	<input type="checkbox"/>	<input type="checkbox"/>
Do I and my employees know what to do if someone else's equipment hits an overhead line?	<input type="checkbox"/>	<input type="checkbox"/>	Do I and my employees know what to do if I see someone else's equipment hitting an overhead line?	<input type="checkbox"/>	<input type="checkbox"/>



Appendix 2: Contacting ESB Networks

Emergencies

For all emergencies, including contact with overhead electricity lines, call:

1850 372 999

General Enquiries

For general queries in relation to ESB Networks and overhead lines:

Tel: 1850 372 757

Email: esbnetworks@esb.ie

See ESB Networks area office addresses at:
www.esb.ie/esbnetworks

For all ESB Networks map records (overhead lines, underground cables and other plant):

Write to Central Site, ESB Networks,
Osprey House, Lr Grand Canal Street,
Dublin 2

Fax: 01 6388169.

Email: centralositerequests@esb.ie

Map records that have been requested as set out above will be delivered by post. Allow up to ten days for delivery. Map requests should include the following three pieces of information:

1. A site map/area map with geographic reference.
2. A return postal address.
3. A telephone contact number.

Safety Materials

ESB Networks provides a range of safety materials, such as booklets, posters, cab safety warning stickers and DVDs addressing the issue of electrical safety. This material is free and may be obtained from:

Tel: 1850 372 757

Email: esbnetworks@esb.ie

Some of this material is available for free download from www.esb.ie/esbnetworks.

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where All Commit to
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and Sustainable
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