

# UKOPA

United Kingdom Onshore Pipeline Operators' Association



## IWG Update

February 2015

**Grant Rogers**

Infringement Working Group Chairman

# IWG Membership

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Current membership comprises:

Grant Rogers (Chairman)

Helen Berry

Tony Gillard

Geoff Glover

Phil Rowlands

Ken Smith

Phil Taylor

Colin Ballentine

Neil Hampshire

Daniel Ingham

Walter Gaffney

Martin Davey

Robert Stockley

Richard Howard

- Wales & West Utilities

- Health and Safety Executive

- Essar

- SABIC

- Esso

- BP

- B.P.A.

- Shell

- Northern Gas Networks

- National Grid (UKD)

- Scotia Gas Networks

- Scotia Gas Networks

- National Grid (UKT)

- National Grid (UKT)

# Update

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- Annual Report
- Agriculture Sector
- Good Practice Guide

# Infringement Database

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- The following companies are registered to provide records for the UKOPA infringement database:

- BP
- BPA
- Centrica
- ConocoPhillips
- Essar
- Esso Petroleum
- Greystar (MJL)
- Ineos
- Mainline Pipelines Ltd
- Marchwood Power
- National Grid
- Northern Gas Networks
- OPA
- SABIC UK Petrochemicals
- Scotia Gas Networks
- Star Energy
- Total (UK)
- Wales & West Utilities
- Shell
- E-On
- Wingas

- 8 companies provided no data for the 2013 report, of which 6 are not UKOPA members, but are captured by Linewatch membership

# Infringement Report

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- ❑ Review / update of the IWG report structure taking into account feedback received, proposed improvements:
  - ❑ Addition of an Executive Summary
  - ❑ Moving some information into appendices – e.g. the rating matrix, IWG membership, etc
  - ❑ ‘Future Plans’ and ‘Plans for the Next Year’ will be combined into one section
  - ❑ Expanding and moving detail of A1 infringements towards the front of the report
  
- ❑ The 2014 report will be circulated in the new format for comment by the Board and IWG in May (even if the data has not been finalised)

# Infringement Data

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- ❑ Data quality has improved consistently over the last 4 years, but there is still a stubbornly high level of 'unknown' data entries
- ❑ Instances of product theft are to be included as A1 infringements, but will be identified separately as 'Malicious Damage'
- ❑ Members are required to submit data for the 2014 report by the end of March 2015
- ❑ Members are encouraged to share learning throughout the year with UKOPA members particularly from:
  - ❑ A1 Actual Damage events
  - ❑ B1 & B2 Serious Potential for Damage events

# 2013 IWG Report Summary

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- ❑ Whilst there was an increase in actual damage events, the overall level of infringements is largely consistent with rolling averages
- ❑ The application of current filtering and weighting methodology does provide a 'top ten' but no clear repeat infringers to target
- ❑ This may be a demonstration of previous success at targeting frequent infringers
- ❑ The remaining stand-out area is agriculture

# Agriculture update

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- ❑ Following a change of personnel in HSE, contact has now been established with Alastair Mitchell from the Agriculture Safety Team
- ❑ HSE agricultural information sheet (AIS) on working safely near overhead electricity power lines - information and safety advice to farmers and agricultural contractors
- ❑ Suggested an AIS, badged as a UKOPA document and promoted through agricultural industry stakeholders:
  - ❑ National Farmers Union (NFU)
  - ❑ National Association of Agricultural Contractors (NAAC)
  - ❑ Unite the Union
  - ❑ Institute of Occupational Safety and Health (IOSH)
  - ❑ National Federation of Young Farmers Clubs (NFYFC)

# HSE Agriculture Information Sheet



**HSE** Health and Safety Executive

## Working safely near overhead electricity power lines

HSE information sheet Agriculture Information Sheet No 8

**Figure 1** Minimum heights above ground level for overhead power lines

Minimum height 7 m (275 kV) and minimum height 7.3 m (400 kV)  
 Minimum height 6.7 m  
 Minimum height 5.2 m  
 Open combine grain tank lids/ unloading augers can exceed 5.2 m  
 Telescopic materials handlers can exceed 5.2 m

**Introduction**

This information sheet is aimed at everyone in agriculture who may work near overhead electricity power lines (OHPs) and outlines what you can do to reduce the risks of electric shock when working near them. If a machine or other conductive item of equipment comes into contact with a live OHP, electricity will be conducted through it to earth. You do not need to touch the line, as in some circumstances electricity can flashover or arc (it can jump across gaps). Anyone touching a machine or equipment in those circumstances risks a serious or fatal electric shock.

**Hazards**

OHPs typically carry electricity at voltages from 11 kV to 400 kV. The lines are often uninsulated (bare) cables. Touching anything in contact with live electrical equipment (even at the lowest voltage) can be fatal. The height of the line varies according to the voltage carried (see Figure 1) so for example any 11 kV or 33 kV OHP on your land should be at least 5.2 m above the ground. Electrical equipment mounted on poles may be lower

than the clearances specified in this guidance. Although the minimum heights of OHPs may be adequate for most work activities, there are many agricultural machines that are capable of reaching or touching OHPs or pole-mounted equipment, including:

- rough terrain fork lift trucks and telescopic materials handlers;
- combine harvesters;
- self-propelled harvesters, eg forage harvesters, beet harvesters etc;
- crop sprayers;
- tractors and tractor-mounted forns and loaders.

Remember that the overall height of a machine may be increased by fitting radio aerials, flashing beacons or in the case of combine harvesters, when the discharge auger or grain tank extensions are used.

Other machines often used in agriculture are capable of reaching an OHP, including:

- construction plant, such as excavators or diggers;
- goods vehicles with tipping bodies or trailers;
- lorry-mounted or self-propelled cranes or grabs.

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- Consider re-routing or burying OHPs in certain locations, such as farmyards or silage clamps where machines often pass below the lines. Consult the DNO for advice and do not attempt to do this work yourself.
- Where you cannot relocate OHPs, select machines that can safely pass below the lines without being able to reach the vertical clearance distance.
- For some short duration work activities you may be able to get the power supply switched off. Speak to the DNO for advice.
- Where you cannot avoid working near OHPs, you will need to carry out a risk assessment and implement a safe system of work.

**Key factors to consider for safe work near OHPs**

**Selecting suitable machinery**

Larger farm machinery has increased the risks of contacting OHPs. You can reduce the risks of contact or flashover greatly by selecting machinery that will not reach more than 4 m from the ground. Check the working heights of machines and the maximum heights that any folding or extending elements can reach. Check with the manufacturer or supplier if necessary to obtain these details and check those heights against the clearances marked on the farm map to identify areas of risk. Consider line heights when you buy new or replacement machinery.

**Safe use of machinery and equipment**

Moving equipment or machinery when extensions are raised could bring it into contact with OHPs. Reduce risks by making sure machines can operate safely near OHPs. For example:

- retract the booms of telescopic handlers and keep them close to the ground when the vehicle is moving;
- lower grain tank lids and ensure that unloading augers on combines are stowed and not in the extended/unloading position;
- use sprayers with horizontally folding booms and never fold vertical sprayer booms on the move;
- fit shorter radio aerials and beacons, reposition or remove existing ones on high machines, so they cannot cause danger;
- take care not to damage poles and stays.

Remember that risks increase at dusk, in darkness or in poor visibility when it becomes harder for machine operators to see OHPs.

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**Long boom irrigators**

- When a machine is being moved or used, keep it under close observation and control.
- Booms should have a nylon or polypropylene control rope at each end.
- If a boom is assembled or dismantled on site this should be done at least 10 m away from OHPs.
- Check that the jets are not near OHPs and that jet breaker devices are fitted and working.

**Sprinklers**

- Do not store pipes under or close to OHPs.
- Always move irrigation pipes horizontally, using two people to carry them as low as possible.
- Plan the layout of the system carefully, so risks are minimised when putting pipes in position.

**Fencing**

- If fencing wire is being stretched, it could spring upwards and come into contact with OHPs, so always keep the wire under control.
- Long runs of wire on undulating ground or hillsides present an increased risk, so anchor the fence securely at several points.

**Stacks and temporary structures**

- Before building a stack or other temporary structure, plan where to locate it to avoid OHPs. Do not site them in areas where machines such as telescopic handlers will need to travel underneath OHPs to get to them.
- Avoid creating clamps below OHPs, as vehicles rolling the clamp or trailers tipping grass etc will be at risk.
- Silos or bins should be sited so bulk food delivery vehicles or trailers can tip safely.

**Construction work**

- There may be occasions when construction work has to be carried out, eg erecting farm buildings, excavation work for laying pipes etc which means machines or vehicles pass near OHPs. In such cases, you and your contractors should follow the precautions set out in *Avoidance of danger from overhead electric power lines* (see 'Further reading').

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**Further reading**

*Avoidance of danger from overhead electric power lines* General Guidance Note GS6 HSE Books: 1997 ISBN 076 0 71176 1348 9 [www.hse.gov.uk/pubns/books/g6.htm](http://www.hse.gov.uk/pubns/books/g6.htm)

Information is also available from the Energy Networks Association (ENA): [www.enanetworks.org](http://www.enanetworks.org) and the Distribution Network Operators publish information on their own websites. Safety information is also available from the National Grid at [www.nationalgrid.com/uk/electricity](http://www.nationalgrid.com/uk/electricity)

*Safety information for farmers and agricultural contractors* ENA 2007 [www.enanetworks.org](http://www.enanetworks.org)

*Safety information for farmers utilizing polytunnels* ENA 1008 [www.enanetworks.org](http://www.enanetworks.org)

*Overhead line clearances - ENA Technical Specification 13 e* - specifies minimum vertical clearances for vehicles/machines passing below OHPs.

**Further information**

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [www.hse.gov.uk](http://www.hse.gov.uk). You can view HSE guidance online and order printed publications from the website. HSE printed publications are also available from bookshops.

**This document contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.**

This document is available at [www.hse.gov.uk/pubns/a88.htm](http://www.hse.gov.uk/pubns/a88.htm)

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# Good Practice Guide

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- ❑ The IWG has been tasked to write a good practice guide for 'Managing Pipeline Infringements'

## Contents

- ❑ Provision of Plant Information
- ❑ Marking Out
- ❑ Supervision of Third Party Activities
- ❑ Responsibilities / Accountability
- ❑ Surveillance
- ❑ Raising Awareness / Liaison
- ❑ Data Collection and Analysis
- ❑ Works Promoter Guidance
  - ❑ Identifying pipeline operators
  - ❑ Notification of activities
- ❑ Audit

# Thank you for listening

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## Questions?