

Health and Safety Executive		Sector Information Minute	
Commercial and Consumer Services, Transportation and Utilities Sector (CACTUS)		SIM 05/2000/52 (formerly SIM 03/2000/26)	
Cancellation Date	24/10/2008	Open Government Status	Fully Open
Version No & Date	1: 24/10/2000	Author Unit/Section	Engineering and Utilities Sector

Target Audience:
Heads of Operations
HM Inspectors of Health and Safety
Specialist Group Inspectors

CLIMBING AND WORKING ON LATTICE TOWERS IN THE TELECOMMUNICATIONS AND BROADCASTING INDUSTRIES

This SIM gives guidance on the precautions required in the telecommunications industry for climbing, descending or working on lattice towers.

INTRODUCTION

1 This SIM provides background and guidance to inspectors dealing with the climbing of lattice towers in the telecommunications industries. [SIM 5/1999/50](#) deals with this issue for the electricity industry.

2 Telecommunications industry in this context includes the operation of towers to broadcast television and radio programmes. These towers are generally operated separately from the companies that make the programmes themselves and are classified to SIC 64200.

BACKGROUND

3 The Construction (Health, Safety and Welfare) Regulations 1996 (CHSW Regulations) apply to installation and maintenance work on telecommunication towers. Regulation 6(1) requires that suitable and sufficient steps be taken to prevent, so far as is reasonably practicable, persons falling. Where the potential fall is 2 metres or more, reg.6(3) lays down a hierarchy of control measures to be taken. Top of the hierarchy is the use of platforms with guardrails and toe-boards. However, in practice, work on the lattice framework of towers is likely to mean the use of fall arrest attachments (commonly) or personal suspension equipment (occasionally) to comply with this requirement. Being attached using a fall arrest system is the minimum requirement where the fall is 2 metres or more.

4 Despite the distances that operatives (often called riggers) may fall, the Engineering and Utilities Sector are aware that until relatively recently, the requirement for attachment was often not observed.

RECENT DEVELOPMENTS

5 There is no formal industry body with which an agreement can be reached on industry working practices. However the Engineering and Utilities Sector approached major players within the industry to discuss attachments and the timescales required for compliance. The

Sector has also spoken to a masts and towers safety advisers group to highlight the requirements of CHSW Regulations reg.6(3).

6 The Sector is not aware of any reason why any company should not now be observing this requirement for attachment. All operatives should now be attached to secure anchorage points at all times whilst working, climbing, descending, or otherwise manoeuvring at height **on the lattice framework**. Operatives should not work alone, not least because if a person falls and is left hanging by the fall arrest system, a colleague needs to initiate rescue arrangements.

7 Where towers are equipped with vertical ladders, the provisions of CHSW Regulations regs.6(5) and 6(6) and Schedule 5 should be complied with. If a ladder does not comply with the above provisions, then the requirements of reg.6(3) should be followed. Where ladders have lengthy distances between rest platforms then it is likely to be important to have systems for attachment whilst ascending or descending them. As such distances are likely to mean that Schedule 5 is not complied with, then there will be legal grounds to ask for attachment systems. Cable or rail based systems are preferable. (Schedule 5.5 states that where practicable rest platforms shall be provided at suitable intervals where a ladder rises a vertical distance of 9 metres or more above its base. What are suitable intervals between rest platforms may be the subject of interpretation. The legal issues are also not straightforward and you are advised to contact the Sector at Nottingham if contemplating enforcement action on this issue for a telecommunications mast).

8 Where Schedule 5 is complied with, it is also recommended that ladders are fitted with protective hoops. However, where fall arrest systems are provided and used, hoops would usually not serve sufficient useful purpose for inspectors to seek their provision.

9 On the top of many towers are what are known as 'cylinders'. These are generally light coloured structures which go over the topmost transmitters for weatherproofing. Space within cylinders is fairly cramped, but they are accessed occasionally for maintenance work. CHSW Regulations reg.6(3) may not apply because:

- (1) there may not be a possibility of falling more than 2 metres within these structures
- (2) there may still be a ladder up the centre of the cylinder.

10 The Sector intends to look at this more closely in the near future and inspectors are asked to consult the Sector at Nottingham if any enforcement action regarding cylinders is being considered.

RISK AND ENFORCEMENT GUIDANCE

11 The main areas of risk where deficiencies are likely to be found are as follows:

- (1) Where operatives on the lattice framework of towers at heights of more than 2 metres are not using a suitable work platform and are not attached, then this is likely to involve a possible risk of serious personal injury, compared to a benchmark of a remote risk of minor injury (cuts and bruises), which can be achieved by taking the precautions outlined in [para 6](#) (initial industry response was that the use of attachment could increase risk at certain times. While industry has now withdrawn that claim and now agrees with the need for attachment, isolated arguments may still be put forward by industry. The Sector would appreciate any feedback on this issue) . CHSW Regulations reg.6(3)

provides a defined legal standard to be complied with.

(2) Fall arrest equipment needs to be maintained in good condition. Where equipment appears in unsuitable condition, such that it is likely to fail, then the risks are likely to be as above, ie a possible risk of serious personal injury. Lesser faults may lead to lesser risks; Specialist Group advice may be necessary. The Personal Protective Equipment Regulations 1992 reg.7 provides a defined legal standard for equipment to be maintained 'in efficient working order and in good repair'.

(3) There should be systems in place for inspection of fall arrest equipment. BS EN 365 recommends an examination (or, where deemed necessary by the manufacturer, servicing) at least once every twelve months by a competent person. However depending on frequency of use and susceptibility to wear and tear, more frequent inspections may be required. In addition, a daily or before use visual inspection by users is necessary. Again, Specialist Group advice should be sought where required. Insufficient formal inspection per se is likely to represent a remote risk of serious personal injury. Standards are interpretative.

ENQUIRIES

12 Any further enquiries should be directed to the Engineering and Utilities Sector at the Nottingham Office.

Date first issued: 24 October 2000

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