



IRATA SAFETY BULLETIN SB18

Near miss – failure of anchor lines

Issue No.	SB18
Issue Date	18.02.2011
Issuer	IRATA Health & Safety Committee
Status	Report following operating members' reports

There have been several 'near miss' incidents which have involved failure of anchor lines.

Having two independent anchor points and separate working and safety lines which may be linked to share loading may not be adequate in extreme situations.

There may be several causes of situations where both ropes could fail. See examples below.

Hazard	Control measures (ICOP refs in bracket)
Melting on high temperature surfaces, or by hot tools	Avoid with rigging, or use heat and/ or flame resistant protection, or wire ropes in rigging.
Sharp edges or abrasion	Anchor line protectors (2.7.10), re- anchor (2.11.2.14 & 15, 2.11.3.13), deviation (2.7.9, 2.11.2.15, Fig 7) If using a wide Y-anchors use double anchor slings and connectors
Cutting by falling object e.g. confined access into a tank	Tie cover down to prevent closure, block up to prevent rope damage if hatch cover is closed suddenly.
Cutting by UHP water jetting, abrasive blasting, chain saw etc	Avoid with rigging / wide apart / wire rope (hard link) / use of suspended platform / technician lowered into position / Anchor line protectors (2.7.10)
Occasional deliberate on residential buildings	Rigging ropes quite wide apart so both not cut simultaneously. May also be appropriate for other hazards
Chemical	Avoid with rigging, or use chemically resistant protection. Wire ropes in rigging may be appropriate.

Example: A technician had a lucky escape, only suffering sprained ankles in the following incident.

Both ropes were rigged for a 6m descent on 16in dia. (400mm) insulated pipes, about 12in -18in (3-400mm) away from an exposed section of pipe at a temperature of 900-1000°F /480-540°C. Somehow the ropes slipped sideways onto the non-insulated section of pipe and within seconds of starting the descent the ropes melted and the technician fell about 3m, landing on his feet. The melting point of the ropes is about 500°F /260°C.