



Compression chambers

Diving Information Sheet No 4

Introduction

1 This diving information sheet is part of a series of information sheets providing guidance on diving at work. It replaces the following diving safety memoranda: DSM 2/1984 and DSM 3/1984. The remaining DSMs have either been replaced by other diving information sheets, or will be cancelled when the Diving at Work Regulations come into force on 1 April 1998.

2 There are two sections, containing guidance on the following aspects of compression chambers:

- (a) safety procedures for diving chamber operations;
- (b) diving safety interlocks.

Safety procedures for diving chamber operations

3 The text reproduced in paragraph 4 was issued in a safety notice by the Norwegian Petroleum Directorate, and is supported by HSE.

4 In connection with diving accidents on the Norwegian Shelf, the Norwegian Petroleum Directorate gives the following recommendations:

- (a) Clamping mechanisms, necessary for the chamber complex, evacuation device and bell to remain under pressure, should be equipped with an interlocking mechanism. This interlocking mechanism will make it impossible to open a clamping mechanism in the event that an undesirable drop in pressure will take place. We emphasise that it must be impossible to open the mating clamp between the bell and the chamber while the tunnel is under pressure.
- (b) The person who operates the clamping mechanism must make sure that opening it will not cause an undesirable drop in pressure.
- (c) The doors between the different compartments in the chamber complex should be kept closed whenever possible.
- (d) All stations necessary for a safe diving operation should be equipped with a communications system which means the person on the station can understand their orders clearly. It should be possible to contact the diving supervisor from all these stations.

- (e) The diving operation should be carried out in accordance with laid down procedures. During operations of special importance to the divers' safety, checklists should be used.

Diving safety interlocks

5 Diving systems should be fitted with safety interlocks where necessary, to prevent any unintentional pressurisation or de-pressurisation, or uncontrolled loss of pressure. Particular attention should be paid to chamber/bell mating systems, diver evacuation mating systems, and food and equipment locks.

6 Internal communicating doors in the transfer under-pressure chamber should be shut, and a seal should be obtained when the following take place: bell mating or unmating; and transfer of personnel or equipment. These doors should not be opened again until the internal door between the transfer chamber and the transfer trunk has been shut.

Further reading

- 1 *Commercial diving projects offshore. The Diving at Work Regulations 1997. Approved Code of Practice* L103 HSE Books 1998 ISBN 0 7176 1494 8
- 2 *Commercial diving projects inland/inshore. The Diving at Work Regulations 1997. Approved Code of Practice* L104 HSE Books 1998 ISBN 0 7176 1495 6
- 3 *Recreational diving projects. The Diving at Work Regulations 1997. Approved Code of Practice* L105 HSE Books 1998 ISBN 0 7176 1496 4
- 4 *Media diving projects. The Diving at Work Regulations 1997. Approved Code of Practice* L106 HSE Books 1998 ISBN 0 7176 1497 2
- 5 *Scientific and archaeological diving projects. The Diving at Work Regulations 1997. Approved Code of Practice* L107 HSE Books 1998 ISBN 0 7176 1498 0
- 6 *The Diving at Work Regulations 1997* SI 1997/2776 The Stationery Office 1997 ISBN 0 11 065170 7

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

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