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TO: All OSD Inspectors (Bands 1-3)

FIT TESTING OF RESPIRATORY PROTECTIVE EQUIPMENT FOR WORK ON OFFSHORE INSTALLATIONS

PURPOSE

The purpose of this SPC is to inform inspectors of developments in the face fit testing of respiratory protective equipment (RPE) face pieces with specific reference to the offshore industry.

BACKGROUND

1. SPC/Enforcement/91 provided inspectors with an update on the changes made to the Control of Asbestos at Work Regulations (CAWR) and the Control of Substances Hazardous to Health Regulations (COSHH) in 2002. Note the COSHH (Amendment) Regulations 2004 came into force on January 17th 2005 and CAWR will be reviewed in 2005.
2. One of the major changes introduced by the revision of the ACoPs accompanying the above regulations was the requirement for the fit testing of RPE which relies on a tight fitting face piece. SPC/Enforcement/91 provides basic guidance on face fit testing and references relevant FOD Operational Circulars (OCs) for more detail.
3. This SPC is concerned with the provision of RPE for escape purposes and use by Emergency Response Teams (ERT). It is not concerned with the provision of RPE for specific tasks such as spray painting, which is discussed in the references referred to in paragraph 1.
4. The performance of RPE with a tight fitting facepiece (filtering facepieces, half and full-face masks) depends on a good contact between the wearer's skin and the face seal of the mask. The General CAWR ACoP (L27) and the general COSHH ACoP cover the general aspects of fit testing. OC 282/28 'Fit testing of respiratory protective equipment facepieces' is essential reading when dealing with this issue.
5. The use and selection of RPE, whether for the control of exposure during specific tasks and processes or for escape/ERT purposes, should be set in the context of the purpose for which it is being used i.e. through risk assessment. In both scenarios the basic controls should be in place with RPE being the option of last resort.

6. Face fit testing is only required where the risk assessment shows that a residual risk remains after other reasonably practicable controls have been applied. Where RPE is worn but is not required by the risk assessment, for example during offshore survival training, face fit testing is not required and would not be enforced i.e. where there is no risk.
7. Face fit testing is an ACoP requirement so duty holders have to option to advance alternative approaches as long as they can provide evidence that these procedures are equal to or better than those laid down in the ACoP.
8. The guidance is clear for the majority of users of RPE both offshore and onshore. However, there are two specific areas where concern has been raised regarding the application and practicality of face fit testing offshore, namely:
 - Escape sets; and
 - Breathing Apparatus (BA) for Emergency Response Teams.
9. The COSHH ACoP requires that wearers of escape sets and BA go through face fit testing. However, a number of operators have raised concerns about the practicalities of this approach given the number of people involved, the transient nature of many of the workforce, the potential need to carry a range of face pieces and the relatively remote nature of the risk.
10. Discussions have taken place between the HID Occupational Health Strategy Team (CHSD3 – formerly OSD1.3), OSD3.3 (Emergency Response Arrangements), RPE specialists in CHSD3 and HSL with a view to developing a policy on face fit testing in the circumstances described above.
11. Step Change held a one-day seminar in June 2004 to discuss the subject. Copies of the presentations can be found on the Step Change Web site – <http://step.steel-sci.org/> (see under Revitalising Health & safety - Occupational Health Group (publications)).

ESCAPE SETS

12. Escape sets are provided in a number of ways, for example they may be located at strategic points throughout production areas, or carried by individuals, where there is a potential risk from hydrogen sulphide (H₂S); a potential for asphyxiation due to unignited gas and asphyxiation/anaesthesia due to oil vapours etc. Escape sets may also be used to enable personnel to muster to the temporary refuge.
13. The usual arrangement is to have a single type of escape set available to all persons onboard, whether core crew, contractors or visitors. Instruction is normally given during the induction and can vary from verbal and demonstration to practical donning.
14. Another factor that needs to be considered is the overriding requirement for the person to escape from the locality where the risk exists e.g. a H₂S release. The basic reason for providing escape kit is to facilitate escape, not to control exposure. Procedures should make sure that escape is not unnecessarily delayed.
15. The use of escape sets and application of face fit testing must be consistent with the duty holders risk assessment. There may be circumstances where the historical use of escape sets is no longer valid and hence can be dispensed with. At least one major operator has reviewed the need for escape sets on one installation and were able to demonstrate that in a number of areas they could be removed without compromising escape provision. Clearly, this also removes the need for face fit testing.

16. Another approach would be the use of devices, which do not rely on the close fitting of the face piece, e.g. hoods. Again, the use of this type of kit should be confirmed by the risk assessment, as it may not be appropriate in all circumstances.
17. There will still be cases where escape sets are required. Even where RPE is well fitted to the wearer it is still essential that the correct donning procedures be followed otherwise a good fit will not be achieved. Good escape sets should be capable of being donned and quickly checked. So, where an alarm has been activated the important thing is to don the RPE as well and quickly as possible and then evacuate to a safe area. This will mean that face fit testing in this situation would in practice be of little added benefit.
18. The appropriate level of training will therefore be essential in ensuring that the evacuation procedures are clear and the wearer knows how to don the kit correctly. During instruction on donning procedures it should be possible to identify anyone with RPE, which clearly does not fit. A visual inspection during instruction would therefore be a useful indicator.

Line to take

19. The duty holder has the following options. Firstly they can review whether escape sets are still required or whether an alternative type can be used (see paragraphs 15 and 16). In these circumstances inspectors should expect to see a risk assessment and justification for the removal of the kit, including the impact on escape provision. For the duty holder this can have a long-term benefit in the reduction in inspection, maintenance and replacement costs.
20. Alternatively, the duty holder can argue that face fit testing is inappropriate as outlined in paragraph 17, in which case inspectors should expect the duty holder to provide details of their procedures to make sure that all persons on board are fully aware of escape procedures and the correct donning procedure for the RPE. This could be part of the onshore/offshore induction process. Also, that consideration is taken of persons who may have particular problems such as beards or large/small faces.
21. The appropriate level of training will therefore be essential in ensuring that the evacuation procedures are clear and the wearer knows how to don the kit correctly. Duty holders should also consider carrying out visual checks on the fit of the RPE during instruction to identify kit, which clearly does not fit.

EMERGENCY RESPONSE TEAMS

22. Emergency Response Teams (ERTs) will normally be deployed in search and rescue operations or to tackle fires where safe to do so – they would not normally be sent to fight major fires where there are no casualties as this is the purpose of the water deluge system.
23. ERTs are equipped with BA, which requires face fit testing under the COSHH Regulations. As outlined in paragraph 9 a number of operators have raised concerns over the practicalities in relation to this application.
24. Inspectors may be presented with a procedure agreed between HSE and the onshore Fire Brigade. Following presentation of Fire Service data it was agreed that the fit testing and BA facemask donning procedure previously given in the Brigade document DCOL 6/2001 and updated in DCOL 2/2004 is a valid alternative to quantitative fit testing.
25. DCOL 2/2004 is now in the public domain although never officially ‘released’ by the Office of the Deputy Prime Minister (ODPM). The information contained in DCOL 2/2004 will be available to organisations through various formal means, such as membership of JOIFF (Joint Oil and Industry Fire Forum), subscription to Technical Indexes Ltd, etc.

26. Should a duty holder wish to adopt this procedure, they should satisfy themselves that what they are proposing is a suitable and sufficient alternative procedure to that contained in OC 282/28 and to then make the case to HSE. At the seminar mentioned in paragraph 11 HSE encouraged the industry to pick this up as an issue, for example through Step Change.

Line to take

27. Should an operator state their willingness to adhere to the Fire Brigade procedure (DOCL 2/2004) then this would be acceptable, taking into consideration the comments made in paragraphs 24 - 26.
28. Individual operators are free to develop their own alternative procedures for ERTs. This will need to be considered on a case-by-case basis. However, the long-term aim is to standardise this across the industry.

FURTHER INFORMATION

Further guidance can be obtained from the HID Occupational Health Strategy Team (CHSD3). Vpn 523 4656.