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Review Document

Basic Details

1.	Sectional Committee No. & Title:	CHD 8 - Occupational Safety and Health
2.	IS No :	IS 14746 : 1999
3.	Title :	Respiratory protective devices - Half masks and quarter masks - Specification
4.	Date of Previous Review:	November, 2019

Review Analysis

5.1 Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.

S.No.	Standard (No.)	Standard (Title)	Whether the standard has since been revised	Major changes	Action proposed
1	EN 140:1989	EN 140:1989- Specification for half masks and quarter masks for respiratory protective devices	It has been revised to EN 140:1999	No major changes, some errors have been identified	<ul style="list-style-type: none"> • A-2.2.c.c Work simulation test – test procedure ‘This shall be repeated IS to 20 times in 10 min’ should be replaced by ‘This shall be repeated up to 19 times in 10 min’ as per EN 140:1999. • A-4.1.2.1 Inward leakage test – Test atmosphere velocity – ‘minimum velocity of 0.12 m/s’ shall be replaced by ‘minimum velocity of 0.1 to 0.2 m/s’ as per EN 140:1999. • A-4.1.2.3 Filter simulator – ‘Pressure drop shall be 1 mbar at 95 l/min’ shall be replaced by ‘Pressure drop shall be 10 mbar at 95 l/min’ as per EN 140:1999. • A-4.2.1 SF6 method – SF6 should be added after sentence – ‘Through this hood/chamber flows a constant concentration of’ as per EN 140:1999. • A-5 Flammability – The height of the flame shall be set to-‘40mm’ which shall be changed to ‘40± 4 mm’ and the distance between the top of the burner and the lowest part of the facepiece passing through the fame shall set to ‘20mm’ can be changed to ‘20±2mm’ as per EN 140:1999.

5.2 Status of standard referred in the IS.

S.No.	Referred standards (No.)	Referred standards (Title)	Since revised IS no. of the corresponding IS	Changes in the referred Standards since last review of IS	Changes in the referred standard which are affecting the standard under review	Action proposed
1	IS 4905 : 1968	Methods of Random Sampling	IS 4905: 2015	Does not affect the standard under review	Does not affect the standard under review	Change the year of IS
2	IS 14166 :1994	IS 14166 :1994 Respiratory protective devices – Full face masks - Specification	No revision	Does not affect the standard under review	Does not affect the standard under review	NIL
3	IS 8347 : 1977	Glossary of terms relating to respiratory protective devices.	IS 8347: 2008	Does not affect the standard under review	Does not affect the standard under review	Change the year of IS
4	14138 (Part 1) : 1994	Respiratory protective devices: Threads for face pieces : Part 1 Standard thread connection- Specification	No revision	Does not affect the standard under review	Does not affect the standard under review	NIL

5.3 Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard).

S.No.	Standard (No.)	Standard (Title)	Provisions that could be relevant while reviewing the IS	Action proposed
1	IS 17274 :2019/ ISO 16900: 2014	IS 17274 :2019/ ISO 16900: 2014 Respiratory Protective Devices — Methods of Test and Test Equipment	As the standard IS 17274: 2019 is an adopted standard from international standard ISO 16900:2014 which has all the methods and test equipment mentioned it was used for reviewing the standard	To make the standard in-line with the already existing IS 17274:2019 which is adopted from international standards, the methods of testing in the IS 17274 are used in the reviewed draft submitted.

5.4 Technical comments on the standard received, if any.

S.No.	Source	Clause of IS	Comment	Action proposed
No entry made in this table				

5.5 Information available on relevant technical developments

S.No.	Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed
1	BIS Licensee	IS 17274:2019 part 1 to part 11 test methods and equipments for respiratory protective devices	IS 14746:1999 cl 4.5, 4.6, 4.7, 4.9, 4.10, 4.11, 4.12, 4.13, 4.15	To review test methods in IS 14746:1999 as per IS 17274:2019

5.6 Issues arising out of changes in any related IS or due to formulation of new Indian Standard.

S.No.	Related IS (revised or new)	Related IS Title	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
No entry made in this table					

5.7 Any consequential changes to be considered in other IS.

S.No.	Related IS to get impacted	Related IS Title	Requirements to be impacted
1	IS 9473-2002	Respiratory protective devices - Filtering half masks to protect against particles - Specification (First Revision)	Cl 5.9 of IS 9473:2002-field of vision
2	IS 10245 : Part 3-1999	Breathing apparatus: Part 3 fresh air hose and compressed air line breathing apparatus - Specification (First Revision)	Cl 5.8 of IS 10245: Part 3: 1999 Half Masks/Mouthpieces

Other Details

6.	Any other observation:	Inputs are also received form DGFASLI for additional tests to be added which are not from International Standard which may be considered by the technical committee. The following are the inputs received.
7.	Upload Supporting Document(s)	
7.1 ARP Report		Proforma for Review Analysis of Indian Standard (2).docx
7.2 Draft Document		IS.14746draft 11082021.docx
8.	Recommendations - On the basis of the analysis of the info available as mentioned above consideration of sectional committee is solicited on the following aspects of the IS under review:	IS 14746:1999 may be revised to the latest version to come in line with the already existing test methods for respiratory protective devices as per IS 17274:2019/ISO 16900: 2014.