II. Respiratory Protective Devices

HOW TO USE THE RESPIRATOR TABLES

Most readers of the "NIOSH Certified Equipment List" use it to answer two basic questions about respiratory protection:

1. What is the appropriate respirator to use? and,

2. Is this respirator approved?

The Respiratory Protective Devices (Respirator) Section is divided into two series of tables to allow the user to readily find the answers to these two questions.

Respirator Selection

The selection of an appropriate respirator for use in a given situation can only be made by carefully considering a series of interrelated environmental, equipment, work situation and human factors.

Once a selection by specific type is made, then a user can refer to the specific section for a list of all approved devices of that type. These types are:

A. Self-contained Breathing Apparatus
   1. Entry Into and Escape
      a. Open circuit pressure demand
      b. Open circuit demand
      c. Closed circuit
   2. Escape Only
      a. Open circuit (pressure demand, demand or continuous flow)
      b. Closed circuit
   3. Combination Self-contained Breathing Apparatus and Supplied-air Respirators

B. Gas Mask
   1. Ammonia
   2. Chlorine
   3. Sulfur Dioxide
   4. Acid Gases
   5. Organic Vapors
   6. Carbon Monoxide
   7. Pesticides
   8. Other gases and vapors

C. Supplied Air Respirators
   1. Type C Continuous Flow
   2. Type C Pressure Demand
   3. Type C Demand
   4. Type CE Continuous Flow Abrasive Blasting
   5. Type A
   6. Type B

D. Particulate
   1. Single Use
   2. Dusts
   3. Dusts and Mists
   4. Dusts, Fumes and Mists
   5. High Efficiency

E. Chemical Cartridges
   1. Ammonia
   2. Methylamine and Ammonia
   3. Chlorine
   4. Hydrogen Chloride
   5. Sulfur Dioxide
   6. Organic Vapor
   7. Paints, Lacquers and Enamels
   8. Pesticides
   9. Vinyl Chloride
   10. Sulfur Dioxide
   11. Other Gases and Vapors

F. Powered Air Purifiers
   1. Gas Masks
   2. Particulate
   3. Chemical Cartridge

G. Vinyl Chloride Respirators

For example, if your need was for a self-contained breathing apparatus for use in escaping from a laboratory fire in which the travel distance to safety was 100 feet, then your choice might be an escape self-contained breathing apparatus (SCBA) with a relatively short duration or service life. Turning to Section A(2) Escape Only Self Contained Breathing Apparatus, you would find that the TC-13F-28 approval (among others) has been granted for escape self-contained breathing apparatus (Es) with a service life of 5 minutes.

Abbreviations and Definitions of Terms and Symbols Used in Lists

Respirator Type

A — Hose mask respirator, for entry into and escape from atmospheres not immediately dangerous to life or health, which consists of a motor- driven or hand-operated blower that permits the free entrance of air when the blower is not operating, a strong large-diameter hose having a low resistance to air flow.

AE — Supplied-air respirator. A type A supplied air respirator equipped with additional devices designed to protect the wearer's head and neck against impact and abrasion from rebounding abrasive material, and with shielding material such as plastic, glass, woven wire, sheet metal, or other suitable material to protect the window(s) of facepieces, hoods, and helmets which do not unduly interfere with the wearer's vision and permit easy access to the external surface of such window(s) for cleaning.

B — Supplied-air respirator. A hose mask respirator, for entry into and escape from atmospheres not immediately dangerous to life or health, which consists of a strong large diameter hose with low resistance to airflow through which the user draws inspired air by means of his lungs alone, a harness to which the hose is attached, and a tight-fitting facepiece.

BE — Supplied-air respirator. A type B supplied-air respirator equipped with additional devices designed to protect the wearer's head and neck against impact and abrasion from rebounding abrasive material, and with shielding material such as plastic, glass, woven wire, sheet metal, or other suitable material to protect the window(s) of facepieces, hoods, and helmets which do not unduly interfere with the wearer's vision and permit easy access to the external surface of such window(s) for cleaning.

C — Supplied-air respirators. An airline respirator, for entry into and escape from atmospheres not immediately dangerous to life or health, which consists of a source of respirable breathing air, a hose, a detachable coupling, a control valve, orifice, a demand valve or pressure demand valve, an arrangement for attaching the hose to the wearer and a facepiece, hood, or helmet.

CE — Supplied-air respirator. A type C supplied-air respirator equipped with additional devices designed to protect the wearer's head and neck against impact and abrasion from rebounding abrasive material, and with shielding material such as plastic, glass, woven wire, sheet metal, or other suitable material to protect the window(s) of facepieces, hoods, and helmets which do not unduly interfere with the wearer's vision and permit easy access to the external surface of such window(s) for cleaning.

CF — Continuous flow. Type C supplied air respirator which supplies respirable air at a constant flow.

CC	Closed-circuit apparatus. An apparatus of the type in which the exhalation is rebreathed by the wearer after the carbon dioxide has been effectively removed and a suitable oxygen concentration restored from sources composed of: (i) Compressed oxygen; or (ii) Chemical oxygen; or (iii) Liquid-oxygen.
ODM	Open circuit demand type - An apparatus in which the pressure inside the facepiece in relation to the immediate environment is positive during exhalation and negative during inhalation and from which exhalation is vented to the atmosphere and not rebreathed.
OPD	Open circuit pressure demand type. An apparatus in which the pressure inside the facepiece in relation to the immediate environment is positive during both inhalation and exhalation and from which exhalation is vented to the atmosphere and not rebreathed.
GEN	Oxygen generating respirator which supplies oxygen by means of a chemical reaction
Es	Escape only respiratory devices providing protection only during escape from hazardous atmospheres.
SAR	Supplied-air respirator. An airline respirator.
PAPR	Powered air-purifying respirator means a device equipped with a facepiece, hood, or helmet, breathing tube, canister, cartridge, filter, canister with filter, or cartridge with filter, and a blower.
Rp	Replaceable filter. A filter which is discarded after excessive resistance renders it unsuitable for further use.
Ru	Reusable filter. A filter which is cleaned and reused after excessive resistance renders it unsuitable for further use.
Su	Single use. A respirator that is entirely discarded after excessive resistance, sorbent exhaustion, or physical damage renders it unsuitable for further use.
AG	Acid gas
OV	Organic vapor
Cl	Chlorine
HCl	Hydrogen chloride
HCN	Hydrogen Cyanide
O_2	Sulfur dioxide
CO	Carbon monoxide
NH_3	Ammonia
MA	Methylamine

VC Vinyl chloride

CLO2 Chlorine dioxide

CH2-O Formaldehyde

PH_3 phosphine

H_2S hydrogen sulfide

PLE mists of paints, lacquer and enamel

Pest Pesticide means (1) any substance of mixture of substances (including solvents and impurities) intended to prevent, destroy, repel, or mitigate any insect, rodent, nematode, fungus, weed, or other form of plant or animal life or virus, and (2) any substance or mixture of substances (including solvents and impurities) intended for use as a plant regulator, defoliant, or desiccant, as defined in the Federal Insecticide, Fungicide, and Rodenticide Act of 1947, as amended (7 U.S.C. 135-135k), excluding fumigants which are applied as gases or vapors or in a solid or liquid form as pellets or poured liquids for subsequent release as gases or vapors.

DFM:

D Respirators, either with replaceable or reusable filters, designed as respiratory protection against dusts (I) having an air contamination level not less than 0.05 milligram per cubic meter of air; or (2) dusts having an air contamination level not less than 2 million particles per cubic foot of air.

F Respirators, with replaceable filters, designed as respiratory protection against fumes of various metals having an air contamination level not less than 0.05 milligram per cubic meter.

M Respirators, with replaceable filters, designed as respiratory protection against mists of materials having an air contamination level not less than 0.05 milligram per cubic meter or 2 million particles per cubic foot.

H Respirators, with replaceable filters, designed as respiratory protection against dusts, fumes, and mists having an air contamination level less than 0.05 milligram per cubic meter, and against radionuclides.

R Respirators, with replaceable filters, designed as respiratory protection against radon daughters, and radon daughters attached to dusts, fumes, and mists.

A Respirators, with replaceable filters, designed as respiratory protection against asbestos-containing dusts and mists.

S Single-use dust respirators designed as respiratory protection against pneumoconiosis- and fibrosis-producing dusts, or dusts and mists.

AB Abrasive blasting.

Z Respirators designed as respiratory protection against asbestos- containing dusts and mists, however, no longer permitted for use under the OSHA asbestos standard, 1910.1001.

Service Life

3 min. 3 minutes
5 min. 5 minutes
15 min. 15 minutes
30 min. 30 minutes
45 min. 45 minutes
1 hr. 1 hour

Breathing Gas

A Compressed Air

O Compressed Oxygen

Facepiece Type

ON Orinasal

FF Full facepiece

HH Hood or helmet

MP(M) Mouthpiece

Regulator, valve, or canister location

Fm Facepiece mounted

Bm Belt, chest, or side mounted

Airflow Class

CF Continuous flow

Dm Demand

Pd Pressure-demand

* Obsolete models - these models are still approved, but no longer produced by the manufacturer

SELF-CONTAINED BREATHING APPARATUS (13F)

A. Self-contained Breathing Apparatus

1. Entry Into and Escape

a. Open circuit pressure demand

Approval

Approved for respiratory protection during entry into or escape from oxygen deficient atmospheres, gases and vapors.

Limitations

Use only for temperatures above the temperature listed on approval label.

Approved only when compressed air reservoir is fully charged with air meeting the requirements of the Compressed Gas Association Specification G-7.1 for Type 1, Grade D air, or equivalent specifications.

The air container shall meet applicable DOT specifications.

Use adequate skin protection when worn in gases or vapors that poison by skin absorption.

Refer to approval label and instruction and maintenance manuals for additional information on use and maintenance of these respirators.

In making renewals and repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

Demand mode shall be used only when donning apparatus.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration and other applicable regulations.

Recommendation

NIOSH recommends that SCBA be inspected weekly if stored and immediately before use if used regularly, for breathing gas pressure.

SCBA ENTRY INTO AND ESCAPE OPEN CIRCUIT PRESSURE DEMAND

Approval Number TC-13F-	Approval Issued to	Service Life (min.)	Facepiece Type	Regulator Position
30	MSA	30	FF	Bm
40	Scott	30	FF	Bm
42	Scott	l5	FF	Bm
45	Survivair	30	FF	Bm
47	MSA	l5	FF	Bm
59	Siebe-Gorman	30	FF	Fm
65	ISD	15	ON,FF	Fm
76	Scott	30	FF	Fm
80	Scott	30	FF	Fm
82	Survivair	30	FF	Bm
99	Siebe-Gorman	30	FF	Fm
100	Draeger	30	FF	Fm
100	Draeger	30	FF	Fm
102	ISI	30	FF	Fm
103	Draeger	30	FF	Fm
105	Survivair	60	FF	Bm
106	O-Two Systems	30	FF	Fm
107	Globe	30	FF	Bm

108	Survivair	30	FF	Bm
110	National Draeger	60	FF	Fm
110	National Draeger	60	FF	Fm
113	Survivair	60	FF	Bm
114	Scott	15	FF	Fm
115	Scott	15	FF	Fm
128	O-Two Systems	30	FF	Bm
129	O-Two Systems	60	FF	Bm
130	Survivair	30	FF	Bm
132	Interspiro	30	FF	Fm
133	Interspiro	30	FF	Fm
138	MSA	30	FF	Bm
139	MSA	30	FF	Bm
140	MSA	60	FF	Bm
144	North	60	FF	Fm
146	North	30	FF	Fm
147	North	30	FF	Fm
164	National Draeger	30	FF	Fm
169	MSA	I5	FF	Fm

171	Racal Panorama (Globe)	30	FF	Bm
174	National Draeger	30	FF	Fm
175	National Draeger	45	FF	Fm
177	National Draeger	60	FF	Fm
197	Interspiro	60	FF	Fm
199	Interspiro	30	FF	Fm
207	Racal Panorama (Globe)	30	FF	Bm
208	Racal Panorama (Globe)	60	FF	Bm
212	Scott	45 min.	FF	Fm
220	Racal Panorama (Globe)	45	FF	Bm
226	National Draeger	30	FF	Fm
234	ISI	45	FF	Fm
235	ISI	60	FF	Fm
236	ISI	30	FF	Fm
237	ISI	30	FF	Fm
238	ISI	30	FF	Fm
250	Respiratory Systems	30	FF	Fm

256	MSA	30	FF	Fm
257	MSA	30	FF	Fm
258	MSA	60	FF	Fm
262	Cairns and Brother	30	FF	Fm
263	Cairns and Brother	30	FF	Fm
289	Draeger	60	MP	Bm

SCBA ENTRY INTO AND ESCAPE OPEN CIRCUIT PRESSURE DEMAND

Approval Number TC-13F-	Approval Issued to	Service Life (min.)	Facepiece Type	Regulator Position
264	Cairns and Brother	45	FF	Fm
265	Cairns and Brother	60	FF	Fm
268	National Draeger	45	FF	Fm
270	Survivair	45	FF	Bm
274	Racal Panorama	15	FF	Fm
275	Racal Panorama	30	FF	Fm
278	RSI	30	FF	Fm
279	Racal Panorama	30	FF	Fm
284	Surviviair	30	FF	Fm
285	Surviviair	30	FF	Fm
286	Surviviair	45	FF	Fm
287	Surviviair	60	FF	Fm
288	Pro-tech	30	FF	Fm

b. Open Circuit Demand

Approval

Approved for respiratory protection during entry into or escape from oxygen deficient atmospheres, gases and vapors.

Limitations

Use only for temperatures above the temperature listed on approval label.

Approved only when compressed air reservoir is fully charged with air meeting the requirements of the Compressed Gas Association Specification G-7.1 for Type 1, Grade D air, or equivalent specifications.

The air container shall meet applicable DOT specifications.

Use adequate skin protection when worn in gases or vapors that poison by skin absorption.

Refer to approval label and instruction and maintenance manuals for additional information on use and maintenance of these respirators.

In making renewals and repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration and other applicable regulations.

Recommendation

NIOSH recommends that SCBA be inspected weekly if stored and immediately before use if used regularly, for breathing gas pressure.

SCBA ENTRY INTO AND ESCAPE OPEN CIRCUIT DEMAND

Approval Number TC-13F-	Approval Issued to	Breathing Gas	Service Life (min)	Facepiece Type	Regulator Position
29	MSA	A	30	FF	Bm
39	Scott	A	30	FF	Bm
41	Scott	A	15	FF	Bm
43	Globe	A	30	FF	Bm
44	Survivair	A	30	FF	Bm
46	MSA	A	l5	FF	Bm
58	Siebe-Gorman	A	30	FF	Fm
73	Scott	A	30	FF	Fm
79	Scott	A	30	FF	Fm
142	MSA	A	30	FF	Bm
168	MSA	A	l5	FF	Fm

c. Closed circuit

Approval

Approved for respiratory protection during entry into or escape from oxygen deficient atmospheres, gases and vapors.

Limitations

Use only at temperatures above the temperature listed on approval label.

If compressed air supply is used: Approved only when compressed air reservoir is fully charged with air meeting the requirements of the Compressed Gas Association Specification G-7.1 for Type 1, Grade D air, or equivalent specifications.

If compressed oxygen or liquid oxygen supply is used: Approved for use only when the cylinder or container is charged with compressed oxygen or liquid oxygen meeting U.S.P. specifications.

If enriched air is used: Approved only when the cylinder or container is charged with compressed gas meeting the requirements listed in Federal Register Vol. 20, No. 222, November 18, 1985. Oxygen in the facepiece shall not exceed 30 percent by volume under normal temperature and pressure conditions.

If liquified breathing air is used it must meet Type II - Grade B or higher quality.

The oxygen container shall meet applicable DOT specifications.

Use adequate skin protection when worn in gases or vapors that poison by skin absorption.

Provide proper care, training, and maintenance of the apparatus as specifically described in the manufacturer's instructions and maintenance manuals.

After each use of each apparatus, a fully charged breathing gas container and a recharge of carbon dioxide scrubber shall be installed.

Thorough cleaning and disinfecting of facepiece, breathing tube, and breathing bag must be done in accordance with the manufacturer's instructions.

Refer to approval label and instruction and maintenance manuals for additional information on use and maintenance of these respirators.

In making renewals and repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration and other applicable regulations.

Recommendation for Closed Circuit with Breathing Gas Cylinders

NIOSH recommends that SCBA be inspected weekly if stored and immediately before use if used regularly, for breathing gas pressure.

Approval Number TC-13F-	Approval Issued to	Breathing Gas	Service Life (min)	Facepiece Type	Regulator Position
27	Biomarine	0	45	FF	In back pack
32	Siebe-Gorman	O	180	FF	In back pack
38	Draeger	O	180	FF	In back pack
57	Draeger	O	240	FF	In back pack
60	Scott	O	240	FF	In back pack
84	Biomarine	O	30	FF	In back pack
85	Biomarine	O	60	FF	In back pack
176	Draeger	O	120	FF	In back pack
185	Biomarine	0	240	FF	In back pack
186	MSA	0	240	FF	In back pack
210	Survivair	O	120	FF	In back pack

d. Closed Circuit Pressure Demand

Approval

Approved for respiratory protection during entry into or escape from oxygen deficient atmospheres, gases and vapors.

Limitations

Use only for temperatures above the temperature listed on approval label.

If compressed air supply is used: Approved only when compressed air reservoir is fully charged with air meeting the requirements of the Compressed Gas Association Specification G-7.1 for Type 1, Grade D air, or equivalent specifications.

If compressed oxygen or liquid oxygen supply is used: Approved for use only when the cylinder or container is charged with compressed oxygen or liquid oxygen meeting U.S.P. specifications.

If enriched air is used: Approved only when the cylinder or container is charged with compressed gas meeting the requirements listed in Federal Register Vol. 20, No. 222, November 18, 1985. Oxygen in the facepiece shall not exceed 30 percent by volume under normal temperature and pressure conditions.

If liquified breathing air is used it must meet Type II - Grade B or higher quality.

The oxygen container shall meet applicable DOT specifications.

Use adequate skin protection when worn in gases or vapors that poison by skin absorption.

Do not use this apparatus where there is direct exposure to open flames or in high radiant heat. (This limitation applies to 100 percent oxygen apparatus only.)

Provide proper care, training, and maintenance of the apparatus as specifically described in the manufacturer's instructions and maintenance manuals.

After each use of each apparatus, a fully charged breathing gas container and a recharge of carbon dioxide scrubber shall be installed.

Thorough cleaning and disinfecting of facepiece, breathing tube, and breathing bag must be done in accordance with the manufacturer's instructions.

Refer to approval label and instruction and maintenance manuals for additional information on use and maintenance of these respirators.

In making renewals and repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration and other applicable regulations.

Recommendation for Closed Circuit with Breathing Gas Cylinders

NIOSH recommends that SCBA be inspected weekly if stored and immediately before use if used regularly, for breathing gas pressure.

SCBA ENTRY INTO AND ESCAPE CLOSED CIRCUIT PRESSURE DEMAND

Approval Number TC-13F-	Approval Issued to	Breathing Gas	Service Life (min)	Facepiece Type	Regulator Position
206	Biomarine	O	240	FF	Backpack
209	Dragerwerk	O	120	FF	Backpack
228	Litton Systems (Clifton Precision)	38-39% oxygen Enriched Air	90	FF	Backpack
229	Biomarine	O	6O	FF	Backpack
233	Litton Systems (Clifton Precision)	38-39% oxygen Enriched Air	120	FF	Backpack
229	Biomarine	O	18O	FF	Backpack

2. Escape Only

a. Open circuit (pressure demand, demand or continuous flow)

Approval

Approved for respiratory protection during escape from oxygen deficient atmospheres, gases and vapors.

Limitations

Use only at temperatures above the temperature listed on approval label.

Approved only when compressed air reservoir is fully charged with air meeting the requirements of the Compressed Gas Association Specification G-7.1 for Type 1, Grade D air, or equivalent specifications.

The air container shall meet applicable DOT specifications.

In making renewals and repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

Refer to approval label and instruction and maintenance manuals for additional information on use and maintenance of these respirators.

OSHA regulations require that escape respirators be inspected monthly.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration and other applicable regulations.

Recommendation

NIOSH recommends that SCBA be inspected weekly if stored and immediately before use if used regularly, for breathing gas pressure.

SCBA ESCAPE ONLY OPEN CIRCUIT

Approval Number TC-13F-	Approval Issued to	Service Life (min.)	Facepiece Type	Respirator Type
28	ISD	5	HH	CF, Es
28A	Lear Siegler	5	HH	CF, Es
35	Survivair	I5	FF	ODM, Es
36	Survivair	5	FF	ODM, Es
52	MSA	5	FF	ODM, Es
55	MSA	5	MP	ODM, Es
61	MSA	5	ON	ODM, Es
66	Scott	5	ON,FF	ODM, Es
71	Globe	5	FF	ODM, Es
75	Globe	15	FF	ODM, Es
83	MSA	5	ON	ODM, Es
86	Survivair	5	HH	CF, Es
111	ISI	5	HH	CF, Es
116	Scott	5	FF	OPD, Es
124	Scott	5	FF	OPD, Es
125	Scott	5	FF	OPD, Es
145	ISI	10	HH	CF, Es

166	Racal Panorama (Globe)	5	FF	OPD, Es
167	Racal Panorama (Globe)	15	FF	OPD, Es
172	North	5	HH	CF, Es
173	ISI	7	HH	CF, Es
178	Respiratory Systems	10	HH	CF, Es
179	Respiratory Systems	5	HH	CF, Es
181	Scott	5	HH	CF, Es
182	National Draeger	5	HH	CF, Es
193	Respiratory Systems	5	HH	CF, Es
195	North	10	HH	CF, Es
198	North	5	HH	CF, Es
200	National Draeger	10	HH	CF, Es
201	ISI	5	HH	CF, Es
202	Airolife	10	HH	CF, Es
203	Airolife	5	HH	CF, Es
204	Airolife	10	HH	CF, Es
205	Airolife	7	HH	CF, Es

216	MSA	5	HH	CF, Es
217	MSA	5	HH	CF, Es
231	Survivair	5	HH	CF,Es
232	Survivair	10	HH	CF,Es
241	Respiratory Systems	7	HH	CF, Es
243	Racal Panorama (Globe)	15	FF	OPD, Es
245	Racal Panorama (Globe)	15	FF	OPD, Es
254	MSA	5	HH	Cf,Es
255	Survivair	5	HH	Cf,Es

SELF CONTAINED BREATHING APPARATUS (13F)
b. Closed Circuit

Approval

Approved for respiratory protection during escape from oxygen deficient atmospheres, gases and vapors.

Limitations

Use only at temperatures above the temperature listed on approval label.

If compressed air supply is used: Approved only when compressed air reservoir is fully charged with air meeting the requirements of the Compressed Gas Association Specification G-7.1 for Type 1, Grade D air, or equivalent specifications.

If compressed oxygen or liquid oxygen supply is used: Approved for use only when the cylinder or container is charged with compressed oxygen or liquid oxygen meeting U.S.P. specifications.

If enriched air is used: Approved only when the cylinder or container is charged with compressed gas meeting the requirements listed in Federal Register Vol. 20, No. 222, November 18, 1985. Oxygen in the facepiece shall not exceed 30 percent by volume under normal temperature and pressure conditions.

If liquified breathing air is used it must meet Type II - Grade B or higher quality.

The oxygen container shall meet applicable DOT specifications.

Use adequate skin protection when worn in gases or vapors that poison by skin absorption.

Provide proper care, training, and maintenance of the apparatus as specifically described in the manufacturer's instructions and maintenance manuals.

After each use of each apparatus, a fully charged breathing gas container and a recharge of carbon dioxide scrubber shall be installed.

Thorough cleaning and disinfecting of facepiece, breathing tube, and breathing bag must be done in accordance with the manufacturer's instructions.

Refer to approval label and instruction and maintenance manuals for additional information on use and maintenance of these respirators.

In making renewals and repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

OSHA regulations require that escape respirators be inspected monthly.

MSHA regulations require that self-rescuers that are carried be inspected daily.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration and other applicable regulations.

Recommendation for Closed Circuit with Breathing Gas Cylinders

NIOSH recommends that SCBA be inspected weekly if stored and immediately before use if used regularly, for breathing gas pressure.

SCBA ESCAPE ONLY CLOSED CIRCUIT

Approval Number TC-13F-	Approval Issued to	Service Life (min.)	Facepiece Type
78	MSA	60	MP
87	Draeger	60	MP
88	Scott	15	HH
97	PASS	60	MP
101	CSE	60	MP
104	Ocenco	60	MP
109	PASS	60	FF
117	Survivair	60	FF
170	Romiro	15	MP
239	CSE	60	MP
269	Ocenco Inc.	10	MP
283	MSA	60	MP
289	Draeger	60	MP

3. Combination Self-contained Breathing Apparatus and Supplied-air Respirators (Demand and Pressure Demand)

Approval

Approved for respiratory protection during entry into or escape from oxygen deficient atmospheres, gases and vapors, when using air-line air supply. Approved for escape only, when using self-contained air supply. If service life is 15 minutes or longer then not more than 20% of the rated capacity of air supply can be used on entry.

Limitations

Use only at temperatures above the temperature listed on approval label.

Approved only when compressed air reservoir is fully charged with air meeting the requirements of the Compressed Gas Association Specification G-7.1 for Type 1, Grade D air, or equivalent specifications.

The air container shall meet applicable DOT specifications.

Use adequate skin protection when worn in gases or vapors that poison by skin absorption.

Refer to approval label and instruction and maintenance manuals for additional information on use and maintenance of these respirators.

In making renewals and repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

Use only the hose lengths and pressure ranges specified on the approval label.

If the supplied air fails open cylinder valve and proceed to fresh air immediately.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration and other applicable regulations.

Recommendation

NIOSH recommends that SCBA be inspected weekly if stored and immediately before use if used regularly, for breathing gas pressure.

COMBINATION SCBA AND SAR (DEMAND AND PRESSURE DEMAND)

Approval Number TC-13F-	Approval Issued to	Service Life/SCBA (min)	Face-piece Type	Supplied Air Respirator Type
33	Survivair	5	FF	Es,ODM,SAR
34	Survivair	5	FF	Es,ODM,SAR
48	Scott	3 or 5	FF	Es,ODM,SAR
49	Scott	3 or 5	FF	Es,OPD,SAR
53	Survivair	5	FF	Es,OPD,SAR
54	Survivair	5	FF	Es,OPD,SAR
56	MSA	10	FF	Es,OPD,SAR
56A	MSA	10	FF	Es,OPD,SAR
62	MSA	5	FF	Es,ODM,SAR
63	ISD	15	ON,FF	OPD,SAR
64	ISD	5	ON,FF	Es,OPD,SAR
67	Scott	5	ON,FF	Es,ODM,SAR
68	Scott	5	FF	Es,OPD,SAR
69	MSA	5	FF	Es,ODM,SAR
70	MSA	5	FF	Es,OPD,SAR
72	Globe	5	FF	Es,ODM,SAR
74	Globe	l5	FF	ODM,SAR
76	Scott	30	FF	OPD,SAR

79	Scott	30	FF	ODM,SAR
80	Scott	30	FF	OPD,SAR
89	MSA	30	FF	ODM,SAR
90	MSA	30	FF	OPD,SAR
91	MSA	15	FF	ODM,SAR
92	MSA	15	FF	OPD,SAR
93	MSA	30	FF	OPD,SAR
94	MSA	15	FF	OPD,SAR
95	Scott	60	FF	ODM,SAR
96	Scott	60	FF	OPD,SAR
98	Scott	15	FF	OPD,SAR
108	Survivair	30	FF	OPD,SAR
112	Scott	5	FF	Es,CF,SAR
113	Survivair	60	FF	Bm
114	Scott	15	FF	OPD,SAR
115	Scott	15	FF	OPD,SAR
118	National Draeger	30	FF	OPD,SAR
119	National Draeger	30	FF	OPD,SAR

120	National Draeger	15	FF	OPD,SAR
121	Racal Panorama (Globe)	5	FF	Es,OPD,SAR
122	Racal Panorama (Globe)	15	FF	OPD,SAR
123	MSA	5	FF	Es,OPD,SAR
126	Scott	5	FF	Es,OPD,SAR
127	Scott	5	FF	Es,OPD,SAR
130	Survivair	30	FF	Bm
131	Survivair	30	FF	OPD,SAR
132	Interspiro	30	FF	OPD,SAR
133	Interspiro	30	FF	OPD,SAR
134	Interspiro	5	FF	Es,OPD,SAR
135	O-Two Systems	30	FF	OPD,SAR
136	O-Two Systems	30	FF	OPD,SAR
137	O-Two Systems	60	FF	OPD,SAR
141	National Draeger	5	FF	Es,OPD,SAR
143	MSA	5	FF	Es,OPD,SAR
144	North	60	FF	OPD,SAR

146	North	30	FF	OPD,SAR
147	North	30	FF	OPD,SAR
148	MSA	30	FF	ODM,SAR
149	MSA	15	FF	OPD,SAR
150	MSA	60	FF	OPD,SAR
151	MSA	30	FF	OPD,SAR
152	MSA	60	FF	ODM,SAR
153	MSA	30	FF	ODM,SAR
154	MSA	30	FF	OPD,SAR
155	MSA	15	FF	OPD,SAR
156	MSA	30	FF	ODM,SAR
157	MSA	15	FF	ODM,SAR
158	MSA	60	FF	OPD,SAR
159	MSA	30	FF	OPD,SAR
160	MSA	60	FF	ODM,SAR
161	MSA	30	FF	OPD,SAR
162	MSA	30	FF	OPD,SAR
163	MSA	15	FF	OPD,SAR
165	ISI	5	FF	Es,OPD,SAR

183	Dual Safe	3	FF	Es,OPD,SAR
184	Dual Safe	3	FF	Es,OPD,SAR
187	Scott	5	FF	Es,OPD,SAR
188	North	5	FF	Es,OPD,SAR
189	O-Two Systems	5	FF	Es,OPD,SAR
190	ISI	30	FF	OPD,SAR
191	ISI	30	FF	OPD,SAR
192	ISI	60	FF	OPD,SAR
194	PMI	5	HH	Es,OPD,SAR
196	National Draeger	5	FF	Es,OPD,SAR
197	Interspiro	60	FF	OPD,SAR
211	Respiratory Systems	15	FF	OPD,SAR
212	Scott	45 min.	FF	OPD,SAR
213	Interspiro	45	FF	OPD,SAR
214	SAMS	3	HH	Es,OPD,SAR
215	MSA	5	FF	Es,OPD,SAR
218	Respiratory Systems	5	FF	Es,OPD,SAR
219	Respiratory Systems	10	FF	Es,OPD,SAR

221	National Draeger	15	FF	OPD, SAR
222	National Draeger	30	FF	OPD, SAR
223	National Draeger	30	FF	OPD, SAR
224	National Draeger	45	FF	OPD, SAR
225	National Draeger	60	FF	OPD, SAR
227	National Draeger	5	FF	Es,OPD,SAR
230	Racal Panorama (Globe)	15	FF	Es,OPD,SAR
234	ISI	45	FF	OPD,SAR
235	ISI	60	FF	OPD,SAR
236	ISI	30	FF	OPD,SAR
237	ISI	30	FF	OPD,SAR
238	ISI	30	FF	OPD,SAR
240	Survivair	5	FF	Es,OPD,SAR
244	Racal Panorama (Globe)	15	FF	OPD,SAR
246	Racal Panorama (Globe)	15	FF	OPD,SAR
247	MSA	8	FF	ES,OPD,SAR

248	MSA	4	FF	Es,OPD,SAR
249	MSA	8	FF	Es,OPD,SAR
251	MSA	5	FF	OPD,SAR
252	MSA	5	FF	OPD,SAR
253	MSA	5	FF	OPD,SAR
259	Racal Panorama (Globe)	5	FF	OPD,SAR
260	MSA	15	FF	OPD,SAR
261	Breathing Systems	5	FF	OPD,SAR
262	Cairns and Brother	30	FF	OPD,SAR
263	Cairns and Brother	30	FF	OPD,SAR
264	Cairns and Brother	45	FF	OPD,SAR
265	Cairns and Brother	60	FF	OPD,SAR
266	MSA	5	FF	Es,OPD,SAR
267	MSA	10	FF	Es,OPD,SAR
268	National Draeger	45	FF	OPD,SAR
270	Survivair	45	FF	OPD,SAR
271	Cabot Safety	5	FF	Es,OPD,SAR

272	Pro-Tech	5	FF	Es,OPD,SAR
273	Pro-Tech	10	FF	Es,OPD,SAR
276	Racal Panorama	15	FF	OPD,SAR
277	Racal Panorama	30	FF	OPD,SAR
280	Racal Panorama	30	FF	OPD,SAR
281	Willson	5	FF	Es,OPD,SAR
282	Survivair	10	FF	Es,OPD,SAR
284	Survivair	30	FF	OPD,SAR
285	Survivair	30	FF	OPD,SAR
286	Survivair	45	FF	OPD,SAR
287	Survivair	60	FF	OPD,SAR
290	Survivair	5	FF	Es,OPD,SAR
292	Willson	30	FF	OPD,SAR
293	Willson	30	FF	OPD,SAR
294	Willson	45	FF	OPD,SAR
295	Willson	60	FF	OPD,SAR
296	ISI	10	FF	OPD,SAR
297	National Draeger	10	FF	Es,OPD,SAR

298	National Draeger	20	FF	Es,OPD,SAR
299	National Draeger	15	FF	Es,OPD,SAR
300	Survivair	5	FF	Es,OPD,SAR
301	Survivair	10	FF	Es,OPD,SAR
302	MSA	45	FF	OPD,SAR