Where service life of apparatus is—	Where percent relative humidity of inspired air is—	Maximum permissible temperature of inspired air shall not exceed—	
		°F.	°C.
4 hours	0–50	105	41
	50–100	[1] 95	[1] 35

[1] Where percent relative humidity is 50–100 and apparatus is designed for escape only, these maximum permissible temperatures will be increased by 5°C (10°F).

§ 84.104 Gas tightness test; minimum requirements.

(a) Each apparatus will be tested for tightness by persons wearing it in an atmosphere of 1,000 p.p.m. isoamyl acetate.

(b) Six persons will each wear the apparatus in the test concentrations specified in paragraph (a) of this section for 2 minutes and none shall detect the odor or taste of the test vapor.

TABLES TO SUBPART H OF PART 84

TABLE 1.—DURATION AND SEQUENCE OF SPECIFIC ACTIVITIES FOR TEST 1, IN MINUTES

[42 CFR part 84, subpart H]

Activity	Service time—							
	3 minutes	5 minutes	10 minutes	15 minutes	30 minutes	45 minutes	1 hour	2, 3, and 4 hours
Sampling and readings				2	2	2	2	Perform 1 hour test 2, 3, or 4 times respectively.
Walks at 4.8 km. (3 miles) per hour	3	5	3	4	8	12	18	
Sampling and readings			2	2	2	2	2	
Walks at 4.8 km. (3 miles) per hour			3	5	8	12	18	
Sampling and readings			2	2	2	2	2	
Walks at 4.8 km. (3 miles) per hour					6	13	16	
Sampling and readings					2	2	2	

TABLE 2.—DURATION AND SEQUENCE OF SPECIFIC ACTIVITIES FOR TEST 2, IN MINUTES

[42 CFR part 84, subpart H]

Activity	Service time—							
	3 minutes	5 minutes	10 minutes	15 minutes	30 minutes	45 minutes	1 hour	2, 3 and 4 hours[1]
Sampling and readings				2	2	2	2	2
Walks at 4.8 km. (3 miles) per hour			1	1	3	4	6	10.
Carries 23 kg. (50 pound) weight over overcast			1 time in 2 minutes.	1 time in 2 minutes.	2 times in 4 minutes.	3 times in 6 minutes.	4 times in 8 minutes.	5 times in 10 minutes.
Walks at 4.8 km. (3 miles) per hour				1	3	3	3	5.
Climbs vertical treadmill[2] (or equivalent)	1	1	1	1	1	1	1	1.
Walks at 4.8 km. (3 miles) per hour		1	1			2	3	5
Climbs vertical treadmill (or equivalent)		1				1	1	1.
Sampling and readings					2	2	2	2.
Walks at 4.8 km. (3 miles) per hour				2	2	3	5	11.
Climbs vertical treadmill (or equivalent)				1	1	1	1	1.
Carries 23 kg. (50 pound) weight over overcast				1 time in 2 minutes.	3 times in 6 minutes.	4 times in 8 minutes.	5 times in 10 minutes.	5 times in 10 minutes.
Sampling and readings			2			2	2	2.
Walks at 4.8 km. (3 miles) per hour				1	3	3	3	
Climbs vertical treadmill (or equivalent)			1	1	1	1	1	Then repeat above activities once.
Walks at 4.8 km. (3 miles) per hour			2			2	3.	
Climbs vertical treadmill (or equivalent)						1	1	

Carries 20 kg. (45 pound) weight and walks at 4.8 km. (3 miles) per hour.	1	.....	.....	.....	.....	.....	2 .....
Walks at 4.8 km. (3 miles) per hour	1	2	.....	.....	.....	1	4 .....
Sampling and readings	.....	.....	.....	2	2	2	2 .....

[1] Total test time for Test 2 for 2-hour, 3-hour, and 4-hour apparatus is 2 hours.
[2] Treadmill shall be inclined 15° from vertical and operated at a speed of 1 foot per second.

TABLE 3.—DURATION AND SEQUENCE OF SPECIFIC ACTIVITIES FOR TEST 3, IN MINUTES

[42 CFR part 84, subpart H]

Activity	Service time—							
	3 minutes	5 minutes	10 minutes	15 minutes	30 minutes	45 minutes	1 hour	2, 3 and 4 hours [1]
Sampling and readings	.....	.....	.....	2	2	2	2	([2])
Walks at 4.8 km. (3 miles) per hour	.....	.....	1	1	2	2	3	.....
Runs at 9.7 km. (6 miles) per hour	1	1	1	1	1	1	1	.....
Pulls 20 kg. (45 pound) weight to 5 feet	.....	15 times in 1 minute.	.....	30 times in 2 minutes.	30 times in 2 minutes.	30 times in 2 minutes.	60 times in 6 minutes.	.....
Lies on side	1/2	1	1	2	3	4	5	.....
Lies on back	1/2	1	1	2	2	3	3	.....
Crawls on hands and knees	1	1	1	2	2	2	2	.....
Sampling and readings	.....	.....	2	.....	2	2	2	.....
Runs at 9.7 km. (6 miles) per hour	.....	.....	.....	1	1	1	1	.....
Walks at 4.8 km. (3 miles) per hour	.....	.....	.....	.....	2	8	10	.....
Pulls 20 kg. (45 pound) weight to 5 feet	.....	.....	30 times in 2 minutes.	.....	60 times in 6 minutes.	60 times in 6 minutes.	60 times in 6 minutes.	.....
Sampling and readings	.....	.....	.....	2	.....	2	2	.....
Walks at 4.8 km. (3 miles) per hour	.....	.....	1	.....	3	4	10	.....
Lies on side	.....	.....	.....	.....	.....	2	4	.....
Lies on back	.....	.....	.....	.....	.....	2	1	.....
Sampling and readings	.....	.....	.....	.....	2	2	2	.....

[1] Total test time for Test 3 for 2-hour, 3-hour, and 4-hour apparatus is 2 hours.
[2] Perform test No. 3 for 1 hr. apparatus; then perform test No. 1 for 1 hour apparatus.

TABLE 4.—DURATION AND SEQUENCE OF SPECIFIC ACTIVITIES FOR TEST 4, IN MINUTES

[42 CFR part 84, subpart H]

Activity	Service time—									
	3 minutes	5 minutes	10 minutes	15 minutes	30 minutes	45 minutes	1 hour	2 hours	3 hours	4 hours
Sampling and readings	.....	.....	.....	2	2	2	2	([2])	([3])	([4])
Walks at 4.8 km. (3 miles) per hour.	.....	.....	.....	1	2	2	2	.....	.....	.....
Climbs vertical treadmill [1] (or equivalent).	1	1	1	1	1	1	1	.....	.....	.....

TABLE 4.—DURATION AND SEQUENCE OF SPECIFIC ACTIVITIES FOR TEST 4, IN MINUTES—Continued

[42 CFR part 84, subpart H]

Activity	Service time—									
	3 minutes	5 minutes	10 minutes	15 minutes	30 minutes	45 minutes	1 hour	2 hours	3 hours	4 hours
Walks at 4.8 km. (3 miles) per hour.	.....	1	1	1	2	2	2	.....	.....	.....
Pulls 20 kg. (45 pound) weight to 5 feet.	.....	30 times in 2 minutes.	30 times in 2 minutes.	30 times in 2 minutes.	60 times in 5 minutes.	60 times in 5 minutes.	60 times in 5 minutes.	.....	.....	.....
Walks at 4.8 km. (3 miles) per hour.	.....	.....	1	1	1	2	3	.....	.....	.....
Carries 23 kg. (50 pound) weight over overcast.	.....	.....	.....	1 time in 1 minute.	1 time in 1 minute.	2 times in 3 minutes.	4 times in 8 minutes.	.....	.....	.....
Sampling and readings	.....	.....	2	.....	2	2	2	.....	.....	.....
Walks at 4.8 km. (3 miles) per hour.	.....	.....	.....	1	3	3	4	.....	.....	.....
Runs at 9.7 km. (6 miles) per hour.	.....	1	1	1	1	1	1	.....	.....	.....
Carries 23 kg. (50 pound) weight over overcast.	.....	.....	1 time in 1 minute.	1 time in 1 minute.	2 times in 3 minutes.	4 times in 6 minutes.	6 times in 9 minutes.	.....	.....	.....
Pulls 20 kg (45 pound) weight to 5 feet.	15 times in 1 minute.	.....	.....	15 times in 1 minute.	60 times in 5 minutes.	30 times in 2 minutes.	36 times in 3 minutes.	.....	.....	.....
Sampling and readings	.....	.....	.....	2	2	2	2	.....	.....	.....
Walks at 4.8 km. (3 miles) per hour.	1	.....	1	.....	.....	2	6	.....	.....	
Pulls 20 kg. (45 pound) weight to 5 feet.	.....	.....	.....	.....	.....	60 times in 5 minutes.	60 times in 5 minutes.	.....	.....	.....
Carries 20 kg. (45 pound) weight and walks at 4.8 km. (3 miles) per hour.	.....	.....	.....	.....	.....	3	3	.....	.....	.....
Sampling and readings	.....	.....	.....	.....	.....	2	2	.....	.....	.....

[1] Treadmill shall be inclined 15° from vertical and operated at a speed of 30 cm. (1 foot) per second.
[2] Perform test No. 1 for 30-minute apparatus; then perform test No. 4 for 1-hour apparatus; then perform test No. 1 for 30-minute apparatus.
[3] Perform test No. 1 for 1-hour apparatus; then perform test No. 4 for 1-hour apparatus; then perform test No. 1 for 1-hour apparatus.
[4] Perform test No. 1 for 1-hour apparatus; then perform test No. 4 for 1-hour apparatus; then perform test No. 1 for 1-hour apparatus twice (i.e., two one-hour tests).