

INSPECTION PROCEDURES FOR RESPIRATOR USE

Respirator maintenance must be an integral part of the overall respirator program. Wearing a poorly maintained or malfunctioning respirator is, in one sense, more dangerous than not wearing a respirator at all. Individuals wearing defective devices think they are protected when, in reality, they are not. Emergency escape and rescue devices are particularly vulnerable to poor maintenance as they generally are used infrequently, and then in the most hazardous and demanding conditions during emergency escape or rescue.

Respirator inspections must occur before each use and during cleaning.

Inspection of Air-Purifying Respirators

Routinely used air-purifying respirators should be inspected using the following inspection procedures :

Examine the facepiece for:

- Excessive dirt;
- Cracks, tears, holes, or physical distortion of shape from improper storage;
- Inflexibility of rubber facepiece (stretch and massage to restore flexibility);
- Cracks or badly scratched lenses in full facepieces; and
- Incorrectly mounted full-facepiece lens or broken or missing mounting clips;
- Cracked or broken air-purifying element holder(s), badly worn threads or missing gasket(s), if required.

Examine the head straps or head harness for:

- Breaks;
- Loss of elasticity;
- Broken or malfunctioning buckles and attachments (full facepieces only); and
- Excessively worn serrations on the head harness that might permit slippage (full facepiece only).

Examine the exhalation valve for the following after removing its cover:

- Foreign material, such as detergent residue, dust particles, or human hair under the valve seat;
- Cracks, tears, or distortion in the valve material;
- Improper insertion of the valve body in the facepiece;
- Cracks, breaks, or chips in the valve body, particularly in the sealing surface;
- Missing or defective valve cover;
- Improper installation of the valve in the valve body.

Examine the inhalation valve for the following:

- Foreign materials, such as detergent, particles, or human hair under the valve seat;
- Cracks, tears, or distortion in the valve material;
- Improper insertion of the valve body in the facepiece;
- Cracks, breaks, or chips in the valve body, particularly in the sealing surface; and
- Missing or defective valve cover, improper installation of the valve body.

Examine the filter(s) for:

- Loading of filter(s) or replacement date on filter.



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Examine cartridge(s) for:

- Worn threads;
- Cracks in housing;
- Worn or missing cartridge gasket.

Examine the air-purifying element for:

- Incorrect cartridge, canister, or filter for the hazard;
- Incorrect installation, loose connections, missing or worn gasket or cross threading in the holder;
- Expired shelf-life date on the cartridge or canister;
- Cracks or dents in the outside case of the filter, cartridge or canister, indicated by the absence of sealing material, tape, foil, etc., over the inlet.

If the device has a corrugated breathing tube, examine it for:

- Broken or missing connectors;
- Missing or loose hose clamps;
- Deterioration, determine by stretching the tube and looking for cracks.

Examine the harness or a front- or back-mounted gas mask for:

- Damage or wear to the canister holder, which may prevent it being held in place;
- Broken harness straps for fastening.

Inspection of Atmosphere-Supplying Respirators

Routinely used atmosphere-supplying respirators should be inspected use the following inspection procedures :

****If the device is a tight-fitting facepiece, use the procedures outlined under the air-purifying respirators, except those pertaining to the air-purifying elements.****

Examine the hood, helmet, blouse, or full suit for:

- Rips and tears, seam integrity, etc.;
- General condition, with emphasis on the suspension of, protective headgear;
- Cracks or breaks or impaired vision on the protective face shield;
- Protective screen is intact and secured correctly over the face shield (abrasive blasting hoods and blouses)

Examine the air supply system for:

- Integrity and good condition of air supply lines and hoses, including attachment and end fittings;
- Correct operation and condition of all regulators, or other air flow regulators.

Self-Contained Breathing Apparatus (SCBA)

In addition to the above, inspect SCBA units to determine that:

- The high pressure cylinder of compressed gas or oxygen is sufficiently charged for the intended use, preferably fully charged.



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- On closed-circuit SCBAs, a fresh canister of CO₂ (carbon dioxide) sorbent is installed.
- On open-circuit SCBAs, the cylinder has been recharged if less than 25% of the useful service time remains.

All SCBAs are required to have a warning device that indicates when the 25% level is reached. However, it is recommended that an open-circuit SCBA be fully charged before use.

Non-Routine Use of Air-Purifying or Atmosphere Supplying Devices

When air-purifying or atmosphere supplying devices are used non-routinely, all the above procedures should be followed after each use. Respirators used for emergency use must be inspected once a month, and a record must be kept of inspection dates and findings for respirators maintained for emergency use.

Defects Found During Inspections

If defects are found any inspections, two remedies are possible. If the defect is minor, repair and/or adjustment may be made on the spot. If a major defect is found, the device should be removed from service until it can be repaired. Under no circumstances should a respirator that is known to be defective remain in use.

Inspection During Cleaning

Because respirator cleaning usually involves some disassembly, it presents a good opportunity to examine each respirator thoroughly. The procedures outlined above for a routine inspection should be used. Respirators should be inspected after cleaning operations and reassembly have been accomplished.



RESPIRATORY PROTECTION EQUIPMENT CHECKLIST

Type of Respirator: Disposable Air-Purifying Atmosphere-Supplying SCBA
 Use of Respirator: Routine Non-routine Emergency Rescue

Respirator Manufacturer: _____ Serial ID #: _____

Respirator User Signature: _____ Date: _____

Does this respirator need and repair or replacement? Yes No

Type of Respirator	Inspection Items	Yes	No
Filtering Facepiece Respirator	Are there holes in the filter or damage to sorbent such as loose charcoal granules?		
	Do straps still have their elasticity; are there any signs of deterioration of the straps?		
	Is there deterioration of metal nose clip?		
	Is the filter labeled and colored coded with the NIOSH approval label; is the label legible?		
Air-Purifying Respirators (APRs)	Is the facepiece dirty?		
	Is the rubber still pliable? Are there any cracks, tears, holes, or other signs of deterioration in the rubber?		
	Are there any breaks, tears, loss of elasticity, or broken attachments on the straps?		
	Can the straps be tightened for an appropriate fit?		
	Do the inhalation valve and exhalation valve have any holes, warpage, cracks, or dirt on them?		
	Is the appropriate canister/cartridge installed on the respirator for the contaminants in the workplace?		
	Are the canisters/cartridges marked with an expiration date?		
	Are there any dents or corrosions on the canisters/cartridges?		
Powered Air-Purifying Respirators (PAPRs)	Check hood, helmet, blouse, suit for cracks and tears, torn seams, and abrasions.		
	Check integrity of head gear suspension.		
	Check air supply system for air quality.		
	Is the charging unit functional?		
	Is the HEPA filter present and changed as needed?		
Atmosphere-Supplying Respirator	Is the rubber still pliable? Are there any cracks, tears, holes or other signs of deterioration in the rubber?		
	Are there any breaks, tears, loss of elasticity, or broken attachments on the straps?		
	Do the inhalation valve and exhalation valve have any holes, warpage, cracks, or dirt on them?		
	Can the straps be tightened for an appropriate fit?		



RESPIRATORY PROTECTION EQUIPMENT CHECKLIST

Type of Respirator	Inspection Items	Yes	No
Atmosphere-Supplying Respirator (continued)	Is the facepiece dirty? Cracked? Does it have any abrasions or distortions?		
	Is the rubber still pliable? Are there any cracks, tears, holes or other signs of deterioration in the rubber?		
	Are there any breaks or kinks in the supply hoses?		
	Check for detachable coupling links and compatibility of couplings.		
	Check tightness of connectors.		
	When a compressor is used to provide a breathable air, check air purifying elements, carbon monoxide alarm.		
Self-Contained Breathing Apparatus (SBCAs)	Is the facepiece dirty? Cracked? Does it have any abrasions or distortions?		
	Is the rubber still pliable? Are there any cracks, tears, holes or other signs of deterioration in the rubber?		
	Are there any breaks or cracks in the hoses?		
	Are there any breaks, tears, loss of elasticity, or broken attachments on the straps?		
	Can the straps be tightened for an appropriate fit?		
	Check the facepiece and breathing hose for integrity.		
	Are the and oxygen cylinders maintained in a fully charge state?		
	Check the integrity of the regulator.		
	Does the regulator and warning devices function properly?		
	Check the integrity of the harness assembly, all straps and buckles.		
Is this respirator used for emergency and/or escape? Is the storage compartment appropriately tagged?			

Additional Comments:

POWERED AIR PURIFYING RESPIRATOR (PAPR) PRE-OPERATION INSPECTION CHECKLIST

Before using your PAPR, go through the entire checklist to make sure your PAPR is working properly and is safe to wear. **DO THIS BEFORE EVERY USE!!**

	Inspection Items
	Check blower housing for visible signs of damage or deterioration.
	Check that the belt is free from damage and that the belt buckle functions properly.
	Check that rubber gaskets are in the breathing tube connection and each of the three (3) cartridge openings.
	Remove the battery(ies) from the charger(s), checking that the green LED light is flashing to indicate a full charge.
	Install battery(ies) into back of blower housing by inserting tongue on bottom of battery pack into groove on lower rear portion of the blower. Rock the battery up into the cavity and secure with the latch.
	Ensure that both battery cavities of the blower are filled either with two batteries, or one battery and one "dummy pack".
	Remove the filters/cartridges from their packaging and ensure that the appropriate cartridges have been purchased for the application. Record the "In-service" date either on the cartridge itself or in another location consistent with your employer's written Worksite-specific Respiratory Protection Plan.
	Install the filter/cartridges into the open filter retainer ports on the blower housing. If HE filters are used, install a PA3PG plug into one of the ports, using filters in the other two ports. For all other cartridge types, use three cartridges.
	Connect the breathing tube to the blower by screwing the male breathing tube adapter into the female opening on the top of the blower housing.
	Hold the PA1AFI Air Flow Indicator on the end of the breathing tube. Turn on the blower by pressing the power switch on top of the blower. The ball of the Air Flow Indicator should be above the line. If not refer to the User Manual for additional instruction.
	Turn off the blower by pressing the power switch on top of the blower. Check that alarm briefly sounds as the blower powers down.
	Check that the hoods and lens is free from damage. If using a hood constructed of Tychem SL, also check that the seams are sealed properly with tape.
	Check that a suspension (if applicable) is installed in the hood.
	Connect the hood by inserting the breathing tube approximately 5 inches into the air entry sleeve at the rear of the hood. Check that a nylon clamp is used to secure the breathing tube to the plastic anchor plate on the hood for CC20 series or directly to the hood for RT series.
	For the loose-fitting facepiece, insert the breathing tube into the opening on the rear of the headpiece and twist clockwise to lock the breathing tube into place.
<p>You are ready to wear your respirator. Refer to the user manual for donning and use information</p>	

