Program Purpose

Respiratory protection programs will be established to regulate the use and maintenance of respiratory protective equipment to (1) reduce employee exposure to toxic chemical agents, (2) allow employees to work safely in potentially hazardous work environments, and (3) maintain compliance with state and federal safety laws.

Whenever possible, mechanical methods (such as exhaust ventilation) should be used to minimize employee exposure to potentially hazardous chemical substances. However, for certain situations or operations, the use of mechanical controls may not be feasible or practical. Under these circumstances, or during an interim while mechanical systems are being developed or installed, the use of respiratory protection may be necessary. Therefore, a sound and effective program is essential to assure that the personnel using such equipment are adequately protected.

Employees wearing respirators must be covered under an approved Department of Labor respirator program. Such a program must have written procedures and practices including medical monitoring of the employee, fit testing, training, and recordkeeping.

Program Characteristics

The characteristics of a properly managed respiratory protection program include:

- Appropriate respirator selection and use (see Respirator Selection Check List, Appendix 4);
- Proper respirator fitting.
- Regular equipment inspection and repair.
- Protective storage
- Working procedures and assignment of responsibilities.
- Required medical approvals.
- Effective and appropriate training.
- Regular program evaluation

Program Responsibilities

Departments with respiratory hazard exposures are responsible for establishing and managing a respiratory protection program. The nature and formality of the program will depend on the scope of the exposure.

Supervisors will ensure the respirators are provided when they are necessary to protect the health of the employee, are suitable for the intended purpose, are properly maintained, are a proper fit, and the employees are properly trained in their use.
Employees will use the respiratory protection in accordance with instructions and training received. Each employee will be responsible for cleaning, inspecting, and making minor repairs on his/her respirator, if necessary, in accordance with instruction and training received.

EHS/RMS (http://www.uaa.alaska.edu/EHSRMS/ehspersonnel.cfm) will:

1. Advise departments on program design.
2. Assist departments with respirator selection.
3. Provide fitting guidelines.
4. Develop and provide periodic training for respirator users.
5. Evaluate department programs for the cleaning and maintenance of respirator equipment.
6. Evaluate storage areas for respirator equipment.
7. Review issuance and use records for the equipment.
8. Assure that medical approval has been obtained for each user.
9. Inspect equipment at regular intervals.
10. Evaluate atmospheres or work conditions to determine the need for respiratory protection.

Voluntary Use Nuisance Dust Masks

Employees who elect to wear dusk masks in environments that do not contain regulated levels of contamination may do so with their supervisors’ permission after being provided with a copy of OSHA Respiratory Protection Appendix D. Departments will provide, at no cost to employees, appropriately rated N95 masks. Use of bandanas or other homemade respirators is prohibited when an employee voluntarily elects to use respiratory protection for nuisance dust levels.

It is critical that voluntary-use employees understand that disposable N95 respirators provide limited or no protection for toxic or hazardous atmospheres and that they must review and understand the material presented in Appendix D as referred to in the preceding paragraph.

No additional requirements as described in the subsequent sections of this policy apply to voluntary use of nuisance dusk masks.

Respirator Selection

Caution must be used in the selection of a respirator. The respirator must provide adequate protection against the anticipated hazard to which the worker is exposed. Only NIOSH approved respirators will be used.
If there is doubt about functionality, the device providing greater protection must be used. In no case should a respirator be selected which offers less protection than required for the particular conditions under which it is to be used.

**Selection Criteria**

1. Identity of the substance(s) and environment for which protection is needed.
2. Physical state of the contaminant (mist, etc., or combination).
3. Permissible exposure limit or toxicity of the substance.
4. Exposure measurements showing the concentration likely to be encountered.
5. Protection factor listed for the respirator type.
6. Possibility of skin absorption or severe eye irritation.
7. Possibility of oxygen deficiency.
8. Limitations or restrictions applicable to the types of respirators being considered which could make them unsafe in the environment involved.

Much of this information can be found on the MSDS for the material which the employee will be exposed to, if the material has an MSDS. Measurements to determine or predict the potential exposure concentrations will be made by or in consultation with **EHS/RMS**.

**Fit Testing**

Any worker required to wear a respirator above and beyond an N95 mask shall do so in compliance with a department-specific respiratory protection program and shall ensure it has a proper fit. This shall be achieved by (1) an initial and semi-annual qualitative or, where required, quantitative fit test; and (2) either a positive or negative pressure fit test each time the respirator is used. Fit testing requirements apply to both disposable and non-disposable respirators.

Respirators should not be worn when conditions prevent a good face seal, as evidenced by failure of any of the fit tests. Such conditions include a growth of beard, sideburns, temple pieces on glasses, or missing dentures. Certain exceptions are granted for positive pressure respirators or as recommended by the manufacturer of the respirator.

In the absence of the manufacturer's facepiece fitting instructions,
**RESPIRATORY PROTECTION**

**Effective Date**
05/07/2012

EHS/RMS will provide detailed instructions.

### Use Guidelines

Insofar as practicable, all individuals who are required to wear respiratory equipment shall be provided such equipment for their exclusive use. An exception to this policy may be permitted for equipment used for emergency or rescue purposes (i.e. SCBA tanks & equipment). The respirator should be marked with the employee's name to prevent unauthorized use.

When respirators are provided for a particular work activity, they shall be used by all personnel while engaged in that work activity.

No respirator shall be used for any purpose unless the "Respirator Selection Checklist" for that application has been completed.

### User Training

Any worker required to wear a respirator at any time shall receive training in the proper use, care, and limitations of that specific type of respirator. Any additional respirators require additional training on the part of the employee. Training will be provided by individual departments if qualified, EHS/RMS, or Alaska Department of Labor approved trainers.

### Emergency Use

Possible emergency use of respiratory protective equipment should be anticipated and planned. Written procedures shall be prepared covering the safe use of the equipment in dangerous atmospheres that might be encountered in an emergency.

Periodic training sessions shall be held for those individuals most likely to use the equipment in an emergency. Training shall include demonstration and practice in putting on the respirator, testing for fit, discussion of the capabilities, and limitations of the equipment, etc. The equipment manufacturer's instructions should be closely followed.

If the atmosphere involved is imminently dangerous to life or health, standby persons must be present with suitable rescue equipment. The Risk Management Department must be immediately notified if an area has a danger level of this magnitude so that a risk assessment may be made.

### Department Inspections

Departments will regularly perform inspections in accordance with the following schedule. A record shall be kept of inspection dates, findings, and corrective actions for all respirators maintained for use.

1. All respirators shall be inspected routinely before and after each use, during cleaning, and in accordance with whatever the manufacturer calls for with regard to routine maintenance (if in addition to the aforementioned inspections).
## RESPIRATORY PROTECTION

**Effective Date:** 05/07/2012

<table>
<thead>
<tr>
<th>Inspection Procedures</th>
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<tbody>
<tr>
<td>Each respirator user will be thoroughly trained in the proper inspection procedures to ensure that the equipment is in good condition.</td>
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<tr>
<td>Inspections will include the following.</td>
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<tr>
<td>1. Check of head-strap for breaks or tears, loss of elasticity, and missing or malfunctioning buckles.</td>
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<tr>
<td>2. Check of facepiece for dirt, cracks, tears, holes, distortion, or any other signs of deterioration.</td>
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<td>3. Check of valves for dust, dirt, or detergent residue on the valves or valve scat; cracks, tears, or distortion in the valve material; or missing or defective valve covers.</td>
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<tr>
<td>4. Check of filter elements for correct filter(s), missing or worn gaskets, worn threads, cracks or dents in filter housing, service life indicator and end of service date.</td>
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<td>5. Inspect all other components as required by the manufacturer if in addition to the components listed.</td>
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<th>Repair</th>
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<td>Damaged respirators shall be brought to the immediate attention of the supervisor. Repair shall be done by trained personnel with parts designated for the respirator. If immediate repairs cannot be made and a respirator is needed, a temporary replacement with the same model and size shall be issued.</td>
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<th>Cleaning and Disinfection</th>
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<tr>
<td>Where respiratory equipment is used routinely, respirators shall be cleaned after each day's use. Cleaning procedure shall include the following.</td>
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<tr>
<td>1. Remove any filters, cartridges, headbands, and disassemble the major respirator parts.</td>
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<td>2. Wash all respirator parts (except cartridges and elastic headbands) in a cleaner-disinfectant solution at about 120 degrees F. Use a hand brush to remove dirt.</td>
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<tr>
<td>3. Rinse thoroughly in clean, warm water to remove all traces of detergent, cleaner, sanitizer, and disinfectant.</td>
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<td>4. Air dry in a clean area.</td>
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<td>5. Inspect all parts; replace with new parts if defective.</td>
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</table>
6. Reassemble the respirator and insert new or unexpired filters or cartridges. Make sure the seal is tight.

7. Place the respirator in a new plastic bag and seal it for storage.

8. Disposable type respirators shall be used for one shift only, and therefore need no cleaning or disinfecting.

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**Storage**

Respiratory protection equipment should be stored in a convenient, clean, and sanitary location to protect it from dust, sunlight, heat, extreme cold, excessive moisture, chemicals, and physical damage. Routinely used respirators may be placed in clean plastic bags, stored in a single layer with the facepiece and exhalation valve in a near normal position to prevent the rubber or plastic parts from becoming permanently distorted. Respirators kept ready for rescue purposes or emergency use shall be stored in a cabinet or case located in a non-contaminated but readily accessible area.

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**Work Area Surveillance**

Periodic air sampling shall be done to determine the continued necessity of respiratory protection and to assure that the proper respirators are being used. Employees may be required to wear personal air sampling equipment for this purpose. The information obtained shall be used to fill out or update the Respirator Selection Checklist (Appendix 04).

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**Medical Approval**

No person should be assigned to a task requiring the use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. A physician shall determine what health and physical conditions are pertinent. The respirator user's medical status should be reviewed annually, or if conditions exist which dictate a more frequent review (i.e. face shaped changes size + or – 10%). Please contact EHS/RMS for additional information on required medical approval.

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**Program Evaluation**

Annual inspections shall be made by EHS/RMS to assure the continued effectiveness of the respiratory protection program. More frequent evaluations may be undertaken if the previous program evaluation has identified deficiencies. Inspection dates and general conditions observed will be recorded and kept on file. The inspection will assure that the proper respirators have been selected, employees are wearing respiratory protection when and where necessary, employees are receiving appropriate training, respirators fit properly, and equipment is being properly cleaned, stored and maintained.