

# **Respiratory Protection Policy**

Effective: September 2000 Revised: February 22, 2013

## **PURPOSE**

The purpose of the respiratory protection program is to protect individuals from air contaminants such as harmful dusts, fogs, fumes, mists, gases, smoke, sprays or vapors that may cause occupational diseases or illness. Resolute Forest Products shall accomplish this objective as much as feasible through accepted engineering control measures. When effective engineering controls are not feasible, or while they are being instituted, Resolute Forest Products employees shall use appropriate respirators. This program governs the selection, care and use of air-purifying and air-supplying respirators at Resolute Forest Product's Calhoun Operations and has been prepared in compliance with 29 C.F.R. § 1910.134.

## **SCOPE**

This respiratory protection program will apply to all individuals working on the Calhoun mill premises during routine, shut down, and emergency conditions.

Contractors, vendors, and visitors are also expected to comply with respirator usage as required by this program, and with all requirements of 29 C.F.R. § 1910.134. It will be the responsibility of the contractors to supply their employees with the appropriate respiratory protection equipment and provide training for proper respirator use. **Contractors shall be informed of this program upon their initial Safety Orientation, and every twelve months thereafter.** 

## **DEFINITIONS**

- 1. **Air-Purifying Respirator** a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air purifying element.
- 2. **Atmosphere-Supplying Respirator** a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.
- 3. **Buddy System** two employees shall remain outside an IDLH atmosphere when two employees enter the IDLH atmosphere. The two employees that enter the IDLH atmosphere shall remain in visual or voice contact with each other at all times and shall use SCBAs.
- 4. **Canister or Cartridge -** a container with a filter, sorbent or catalyst or combination of these items which removes specific contaminants from the air passed through the container.
- 5. **Demand Respirator** an atmosphere-supplying respirator that admits breathing air to the face piece only when a negative pressure is created inside the face piece by inhalation.
- 6. **Emergency Situation** any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.
- 7. **Employee Exposure** exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.



- 8. End-of-service-life Indicator (ESLI) a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.
- 9. Escape Respirator a respirator intended to be used only for emergency exit.
- 10. **Filter or Air Purifying Element -** a component used in respirators to remove solid or liquid aerosols from the inspired air.
- 11. **Filtering Face piece (dust mask)** a negative pressure particulate respirator with a filter as an integral part of the face piece or with the entire face piece composed of the filtering medium.
- 12. **Fit Factor** a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.
- 13. **Fit-Test** the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.
- 14. **High Efficiency Particulate Air (HEPA) Filter** a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.
- 15. **Hood** a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.
- 16. **Immediately Dangerous to Life and Health (IDLH)** an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
- Interior Structural Firefighting the physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage. (See 29 CFR 1910.155)
- 18. Loose-fitting Face piece a respiratory inlet covering that is designed to form a partial seal with the face.
- 19. **Medical Advisor** Physician or other licensed health care professional (PLHCP) whose legally permitted scope of practice (i.e., license, registration or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of 29 C.F.R. § 1910.134.(health care professional such as a qualified nurse, industrial hygienist, or safety professional who has demonstrated competency in areas of occupational health.)
- 20. **Negative Pressure Respirator (tight fitting)** a respirator in which the air pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.
- 21. Oxygen Deficient Atmosphere an atmosphere with an oxygen content below 19.5% by volume.
- 22. **Positive Pressure Respirator** a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.
- 23. **Powered Air-Purifying Respirator (PAPR)** an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.



- 24. **Pressure Demand Respirator** a positive pressure atmosphere-supplying respirator that admits breathing air to the face piece when the positive pressure is reduced inside the face piece by inhalation.
- 25. **Program Administrator** a person who is qualified by appropriate training and/or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness. The Manager of Health and Safety will be the Program Administrator for the Resolute Forest Products Respiratory Protection Program.
- 26. **Qualitative fit test (QLFT)** a pass/fail test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.
- 27. **Quantitative Fit Test (QNFT)** an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.
- 28. **Respiratory Inlet Covering -** that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a face piece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.
- 29. Self-contained breathing apparatus (SCBA) an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.
- 30. Service Life the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.
- 31. **Supplied-air respirator (SAR) or airline respirator** an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.
- 32. **Tight-Fitting Face piece** a respiratory inlet covering that forms a complete seal with the face.
- 33. User Seal Check an action conducted by the respirator user to determine if the respirator is properly seated to the face.

## POLICY

It is the policy of Resolute Forest Products, Calhoun Operations, to provide its employees a safe and healthful working environment. Resolute Forest Products shall provide respirators when such equipment is necessary to protect the health of its employees. The respirators will be applicable and suitable for the purpose intended. Training and medical evaluations are provided at no cost to employees. Employees are not permitted to use their own respirators, as this may result in the use of respirators that are not clean or maintained properly, or that otherwise pose a health hazard to the user. Any employee who wishes to use a respirator in a non-required activity should see the Program Administrator for proper fitting, training, medical evaluation and compliance with other requirements.

## **PROCEDURES**

## A. Program Administration

1. The Program Administrator shall be the Manager of Health and Safety and is responsible for the development and implementation of this program.



2. This program shall be updated as necessary to reflect those changes in Resolute Forest Products workplace conditions that affect respirator use.

## **B.** Selection of a Respirator

- 1. General
  - a) The selection of an appropriate respirator will be based on the respiratory hazard(s) to which the worker is exposed along with workplace and user factors that affect respirator performance and reliability.
  - b) A list of NIOSH-certified respiratory protection equipment available from mill stores. Limitations of the equipment are outlined in Appendix A-1.
  - c) Each department will maintain a list of tasks that require respirators, identify the potential hazard, and the types of approved respirators and/or cartridges for the task. This list should also include a reasonable estimate of employee exposures to respiratory hazards(s) and an identification of the contaminant's chemical state and physical form. These lists are attached in Appendix A-2.
- 2. Escape Respirators

Escape respirators are required and must be carried into certain areas, based on the potential hazard that exists in the area. Employees assigned to work in the Administration Building will be issued an escape respirator and trained in the proper use for emergency evacuation. The potential hazards include chlorine, chlorine dioxide and TRS gases. The areas requiring escape respirators are Kraft Mill, Recovery Boiler #3, Chem Prep, Evaporators, Effluent Clarifier, Sludge Dewatering, Waste Lift, Package Plant, and Filter Plant.

3. Respirators for Atmospheres that are not IDLH

Negative pressure, air-purifying respirators (half mask or full face piece) will be assigned to employees when needed. Air-supplying respirators (air lines and SCBA's) will be available in appropriate departments for vessel entry and emergency conditions (see Confined Space Entry procedure). Air lines and SCBA's may also be required during work practices that expose employees to unknown concentrations of air contaminants.

## C. Medical Evaluations of Employees Required to Use Respirators

1. General Requirement

Resolute Forest Products will provide a medical evaluation to determine an employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. The employee's medical evaluation may be discontinued when the employee is no longer required to use a respirator. The medical evaluation will be conducted by the Calhoun Operations Medical Advisor whose qualifications meet those specified for a licensed health care professional. These evaluations will be conducted at no cost to the employee.

2. Medical Questionnaire

An evaluation will be conducted for all Resolute Forest Products employees required to wear respirators, and documentation will be maintained in Health Services, using the respirator user medical questionnaire in **Appendix B-1**. The medical questionnaire is designed to meet the requirements of Sections 1 and 2, Part A of Appendix C of 29 CFR 1910.134.



3. Follow-up Medical Exams

Resolute Forest Products shall conduct a follow-up medical examination for any employee who gives a positive response to any questions 1 through 8 in Section 2 of the Questionnaire, or whose initial medical examination demonstrates the need for a follow-up medical examination. The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the Medical Advisor deems necessary to make a final determination.

4. Administration of the Medical Questionnaire and Examinations

The medical questionnaire and examination shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner to ensure that the employee understands its content and has an opportunity to discuss the questionnaire and exam results with the Medical Advisor or occupational health professional.

5. Supplemental Information for the Medical Advisor

Appendix B-2 contains a listing of information that must be supplied to the Medical Advisor before the Medical Advisor makes a recommendation concerning an employee's ability to use a respirator.

6. Medical Determination

In determining the employee's ability to use a respirator, Resolute Forest Products shall:

- a) Obtain a written recommendation regarding the employee's ability to use the respirator from the Medical Advisor. The recommendation shall provide only the following information:
  - 1. Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator;
  - 2. The need, if any, for follow-up medical evaluations; and
  - 3. A statement that the Medical Advisor has provided the employee with a copy of the Medical Advisor's written recommendation.
- b) If the respirator is a negative pressure respirator and the Medical Advisor finds a medical condition that may place the employee's health at increased risk if the respirator is used, Resolute Forest Products may provide a PAPR if the Medical Advisor's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then Resolute Forest Products is no longer required to provide a PAPR.
- 7. Additional Medical Evaluations

Additional medical evaluations, which may include medical tests, consultations or diagnostic procedures, will be provided by Resolute Forest Products if:

a) an employee reports medical signs or symptoms that are related to the ability to use a respirator;



- b) a Medical Advisor, supervisor, or the respirator program administrator informs the employer that an employee needs to be reevaluated;
- c) information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or
- d) a change occurs in workplace conditions (*e.g.*, physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.
- 8. Completed Evaluations

The completed evaluation form will indicate whether the employee is capable of wearing a respirator, and therefore capable of performing tasks that may require respiratory protection. All completed forms will be maintained in the employee's confidential medical file. The Medical Advisor will provide the employee with a copy of the final recommendation. If an employee fails to meet the qualifications necessary for wearing a respirator, the Medical Advisor shall notify the program administrator, the Labor Relations Manager, and the Department Manager. Such individuals shall not be scheduled in those jobs that may require respirator use. The Medical Advisor may recommend a follow-up evaluation for such individuals.

#### D. Fit Testing

Each employee must be fit-tested prior to using a negative or positive pressure tight-fitting face piece, or whenever a different respirator face piece (size, style, model or make) is used, and at least annually thereafter. No employee will be allowed to wear a respirator in a work situation until he or she has been fit tested with the same make, model, style, and size of respirator that will be used.

- 1. Resolute Forest Products shall ensure that employees using a tight-fitting face piece respirator pass an appropriate quantitative fit test (QNFT) as stated in this paragraph.
- 2. Resolute Forest Products shall conduct an additional fit test whenever the employee reports to Resolute Forest Products or if the Medical Advisor, supervisor, or program administrator makes visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.
- 3. If after passing a QLFT or QNFT, the employee subsequently notifies Resolute Forest Products, the program administrator, supervisor, or Medical Advisor that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator face piece and to be retested.
- 4. The fit test shall be administered using an OSHA-accepted QLFT or QNFT protocol. The OSHAaccepted QLFT and QNFT protocols and procedures are contained in **Appendix C-1** of this section.
- 5. QLFT may only be used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less.
- 6. If the fit factor, as determined through an OSHA-accepted QNFT protocol, is equal to or greater than 100 for tight-fitting half face pieces, or equal to or greater than 500 for tight-fitting full face pieces, the QNFT has been passed with that respirator.



7. The use of a TSI PortaCount will be utilized to conduct quantitative fit-testing on each employee required to wear a respirator. The fit-testing procedure will be performed by a qualified individual under the supervision of the Calhoun Mill Health & Safety Department. Fit-testing will be conducted upon implementation of this policy, and renewed at least every 12 months. An employee will also be fit-tested whenever a different respirator face piece is used or whenever there are changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery or an obvious change in body weight.

Employees will be instructed on how to perform a field check of the respirator. A field check is required each time a respirator is donned.

## E. Use of Respirators

- 1. Situations Requiring a Respirator
  - a) Emergency Conditions: When emergency conditions exist that are considered IDLH, O<sub>2</sub> deficient or when the concentration of a gas is unknown, SCBAs will be worn using the Buddy System. Response to control a hazardous chemical leak will be handled by trained Emergency Response Team members. (See the Emergency Response Plan)

SCBA's will not be removed until air sampling confirms a safe atmosphere.

- b) When work procedures have the potential to expose individuals to air contaminants at a concentration above the OSHA permissible exposure limits (PEL) or the ACGIH (American Conference of Governmental Industrial Hygiene) Threshold Limit Values (TLV), or during emergency situations when engineering control methods are not available, then respirators may be required. Several tasks have been shown to require respiratory protection and are listed in Appendix A-2.
  - Note: When employees perform tasks not specifically listed in **Appendix A-2** that have a respiratory exposure similar to those listed, the employee is expected to notify department supervision for guidance on what respiratory protection is required. It is the department's responsibility to notify the Health and Safety Department when revisions to **Appendix A-2** are needed.
- c) Airline respirators or SCBAs will be required when:
  - 1. An employee may be exposed to a contaminant at a concentration that may exceed published values considered to be immediately dangerous to life or health (IDLH)
  - 2. Less than 19.5% oxygen is expected
  - 3. Air contaminants create an unknown atmosphere, or
  - 4. Line breaking procedures involving chlorine, chlorine dioxide and TRS process lines (see Line Breaking Policy).

Note: For non-emergency work at least one standby person will be present when an airline/SCBA unit is used. The standby person must remain within visual or voice communication with the individual during the work or emergency procedure. If the individual is working in a confined space under the above conditions then the individual must wear a full body harness and lifeline in addition to an airline unit.



NO INDIVIDUALS WILL BE ALLOWED TO ENTER A CONFINED SPACE FOR THE PURPOSE OF RESCUE. ONLY TRAINED MEMBERS OF THE EMERGENCY RESPONSE TEAM WILL CONDUCT CONFINED SPACE RESCUE OPERATIONS, AND THEY WILL UTILIZE THE BUDDY SYSTEM.

GAS	TLV	STEL	IDLH	ODOR
				Threshold
H₂S	10	15	100	0.3
CIO <sub>2</sub>	0.1	0.3	5	0.1
Cl <sub>2</sub>	0.5	1	10	0.3 - 1
CO <sub>2</sub>	5000	30,000	40,000	
со	25		1200	
Turpentine	100		800	200
NIOSH 2000 or ACGIH 1999				

## TOXIC AIR CONTAMINANTS, ppm (rev. 12/8/10)

TLV = Threshold Limit Values

STEL = Short Term Exposure Limit

IDLH = Immediately Dangerous to Life or Health

- 2. Face piece Seal Protection
  - a) Respirators with tight-fitting face pieces shall not be worn by employees who have:
    - 1) facial hair that comes between the sealing surface of the face piece and the face or that interferes with valve function; or
    - 2) any condition that interferes with the face-to-face piece seal or valve function. Such conditions may include beards, sideburns, a skull cap that projects under the face piece, or temple pieces on eyeglasses. Regulations indicate that individuals with excessive facial hair such as facial stubble, sideburns, and beards that interfere with the respirator seal do not obtain as high of a degree of respirator performance as persons who are clean-shaven. Therefore, in compliance with the federal policy, the Calhoun mill must implement a "no beard" requirement that allows no facial hair in the seal of a respirator. This policy will apply to any employee required to use a work place respirator and/or emergency self-contained breathing apparatus. A beard is considered facial hair growth that is more than 24 hours old.



b) Ordinary eye glasses shall not be worn with full face piece respirators. Special corrected lens with appropriate mounting brackets attached to the full face piece respirator will be provided by Resolute Forest Products on an as-needed basis.

Contact lenses may be used with full face piece respirators. Resolute Forest Products will not supply contact lenses or be responsible for contact lenses used under these conditions.

- c) For all tight-fitting respirators, the employee shall perform a user seal check each time they put on the respirator using the procedures outlined in Section V(c), Fit Testing.
- 3. Continuing Respirator Effectiveness

Each Department will be responsible for surveillance of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, the effectiveness of the respirator will need to be re-evaluated.

Employees will be directed to leave the respirator use areas:

- a) To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use; or
- b) If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece; or
- c) To replace the respirator or the filter, cartridge or canister elements.

In the event described in (b) above, the employee will not be allowed back into the respirator use area until the respirator is repaired or replaced.

4. Procedures for IDLH Atmospheres

For all IDLH atmospheres, these procedures will be followed:

- a) At least two employees will be outside the IDLH atmosphere for every two that enter the IDLH area (buddy system);
- b) Visual, voice or signal line communication will be maintained between the employee(s) outside the IDLH atmosphere and the employee(s) inside the IDLH atmosphere;
- c) The employee(s) located outside the IDLH atmosphere will be members of the Emergency Response Team, who are trained and equipped to provide effective emergency rescue;
- d) EMS/Security will be notified before employee(s) enter an IDLH atmosphere;
- e) The Program Administrator will be authorized to provide necessary assistance appropriate to the situation; and
- f) Employee(s) located outside the IDLH atmospheres are equipped with:
  - 1) Pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either



- 2) Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or
- 3) Equivalent means for rescue where retrieval equipment is not required.
- 5. Procedures for Interior Structural Firefighting

In the event of interior structural firefighting, employees shall follow the requirements outlined above for IDLH atmospheres. In addition to these requirements, the Buddy System will be used where at least two employees shall remain outside the IDLH atmosphere and at least two employees shall enter the IDLH atmosphere. The two employees that enter the IDLH atmosphere shall use SCBAs and remain in visual or voice contact with each other and those outside the area at all times.

6. General Use for Escape Respirators

General use instructions for the Escape respirators may be found in Appendices D-1 and D-2.

## F. Maintenance and Care of Respirators

1. Cleaning and Disinfecting

Resolute Forest Products shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. Resolute Forest Products will ensure that employees are trained on how clean and disinfect their respirators as shown in **Appendices D-1**, **D-2** and **D-3**. The respirators shall be cleaned and disinfected at the following intervals:

- a) Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition;
- b) Respirators issued to more than one employee shall be cleaned and disinfected before being worn by different individuals;
- c) Respirators maintained for emergency use shall be cleaned and disinfected after each use; and
- d) Respirators used in fit testing and training shall be cleaned and disinfected after each use.
- 2. Storage

Resolute Forest Products shall ensure that respirators are stored as follows:

- a) All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the face piece and exhalation valve.
- b) The respirators shall also be:
  - 1) Kept accessible to the work area;
  - 2) Stored in accordance with any applicable manufacturer instructions.
  - 3)
- 3. Inspection



- a) Employees shall inspect all respirators used in routine situations before each use and during cleaning. Respirators used for emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations and shall be checked for proper function before and after each use. Emergency escape only respirators shall be inspected before being carried into the workplace for use.
- b) Respirator inspections should include a check of the respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the face piece, head straps, valves, connecting tube, and cartridges, canisters or filters. The elastomeric parts should also be checked for pliability and signs of deterioration.
- c) SCBAs should be inspected monthly. Air cylinders should be recharged when the pressure falls to 90% of the cylinders rated capacity. (2216 psi or 4500 psi). The regulator and warning devices should also be checked to determine that they are functioning properly.

These inspections shall be documented on the SCBA Monthly Inspection Check-sheet (Appendix D-4) and these records will be maintained within the respective departments and a copy forwarded to the Safety Department.

4. Repairs/Discards

Each operating department will ensure that respirators that fail an inspection or are otherwise found to be defective are removed from service, and are discarded or repaired or adjusted in accordance with the following procedures:

- a) Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator;
- b) Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed; and
- c) Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

## G. Breathing Air Quality, Quantity and Flow for Respirators

Resolute Forest Products shall provide employees using atmosphere-supplying respirators (supplied-air and SCBA) with Grade D or E breathing air of high purity.

- 1. Resolute Forest Products shall ensure that compressed air-used for respiration is in accordance with the following specifications:
  - a) Compressed breathing air shall meet at least the requirements for Type 1-Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:
    - 1) Oxygen content (v/v) of 19.5-23.5%;
    - 2) Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
    - 3) Carbon monoxide (CO) content of 10 ppm or less;
    - 4) Carbon dioxide content of 1,000 ppm or less; and



## 5) Lack of noticeable odor

- 2. Resolute Forest Products shall ensure that cylinders used to supply breathing air to respirators meet the following requirements:
  - a) Cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 173 and part 178);
  - b) Cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Type 1-Grade D breathing air; and
  - c) The moisture content in the cylinder does not exceed a dew point of  $-50^{\circ}$  F (-45.6° C) at 1 atmosphere pressure.
- 3. Resolute Forest Products shall ensure that compressors used to supply breathing air to respirators are constructed and situated so as to:
  - a) Prevent entry of contaminated air into the air-supply system;
  - b) Minimize moisture content so that the dew point at 1 atmosphere pressure is 10 degrees F ( $5.56^{\circ}$  C) below the ambient temperature;
  - c) Have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Sorbent beds and filters shall be maintained and replaced or refurbished periodically following the manufacturer's instructions.
  - d) Have a tag containing the most recent change date and the signature of the person authorized by Resolute Forest Products to perform the change. The tag shall be maintained at the compressor.
- 4. For compressors that are not oil-lubricated, Resolute Forest Products shall ensure that carbon monoxide levels in the breathing air do not exceed 10 ppm.
- 5. Any oil-lubricated breathing air compressors on the mill site shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm.
- 6. Resolute Forest Products shall ensure that breathing air couplings are incompatible with outlets for non-respiratory worksite air or other gas systems. No asphyxiating substance shall be introduced into breathing airlines.
- 7. Resolute Forest Products shall use breathing gas containers marked in accordance with the NIOSH respirator certification standard, 42 CFR Part 84.

Air cylinders should be delivered to the air filling station located on the west side of the Facilities Building. Employees are to leave empty air cylinders in the designated racks and take a charged cylinder for replacement. ONLY authorized personnel (EMS/Security, Safety, and ERT members) are qualified to fill cylinders.

NOTE: Be sure an SCBA cylinder has the proper psi rating capacity for the fill station being used. (2216 or 4500 psi). Only approved psi rated cylinders can be filled at appropriate fill station.



## **Filling Instructions**

- 1. Connect fill hose to SCBA.
- 2. Close pressure bleed valve on the fill hose.
- 3. Open valve on SCBA cylinder.
- 4. Slowly open air supply valve on selected fill station. Fill cylinder to designed air pressure.

NOTE: Air Regulator gauge is pre-set to desired psi. Regulator adjustment should only be made by authorized Individuals.

- 5. Close air supply valve on filling station.
- 6. Close valve on SCBA cylinder.
- 7. Open bleed valve and relieve pressure from fill hose.
- 8. Disconnect fill hose from SCBA. Cylinder is ready.

#### H. Identification of Filters, Cartridges and Canisters

All filters, cartridges and canisters used in the workplace should be labeled and color coded with the NIOSH approval label. The label should not be removed and should be completely legible.

Employees should verify that the cartridges issued to them are intended for the specific hazard to which they may be exposed.

#### I. Training and Information

- 1. All employees shall be trained in the proper application, maintenance and limitations of the respirators to be used in routine and emergency situations. All Resolute Forest Products employees required to use respirators will be <u>trained annually</u> by qualified instructors. Resolute Forest Products shall ensure that each employee can demonstrate knowledge of at least the following
  - a) Why the respirator is necessary and how improper fit, usage or maintenance can compromise the protective effect of the respirator;
  - b) What the limitations and capabilities of the respirator are;
  - c) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
  - d) How to inspect, put on and remove, use, and check the seals of the respirator;
  - e) What the procedures are for maintenance and storage of the respirator, including frequency of filter or cartridge/canister change;
  - f) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
  - g) The general requirements of the OSHA Respirator Standard and this Procedure.



- 2. The training shall be conducted in a manner that is understandable to the employee.
- 3. Resolute Forest Products shall provide the training prior to requiring the employee to use a respirator in the workplace.
- 4. Retraining shall be administered annually, and when the following situations occur:
  - a) Changes in the workplace or the type of respirator render previous training obsolete.
  - b) Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
  - c) Any other situation arises in which retraining appears necessary to ensure safe respirator use.
- 5. The basic advisory information on respirators, as presented in **Appendix E-1**, shall be provided by Resolute Forest Products in any written or oral format to employees who wear respirators when such use is not required by this section or by Resolute Forest Products.

#### J. Record Keeping

Resolute Forest Products shall establish and maintain written information regarding medical evaluations, fit testing and the respirator program. This information is intended to facilitate employee involvement in the respirator program, assist the program administrator in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.

- 1. Medical evaluation records will be retained in Health Services and will be made available in accordance with 29 CFR 1910.1020.
- 2. The record of the fit test administered to an employee will include:
  - a) The name and identification of the employee tested;
  - b) Type of fit test performed;
  - c) Specific make, model, style and size of respirator tested;
  - d) Date of test; and
  - e) The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.

The fit test records should be retained until the next fit test is administered.

- 3. A written copy of the current respiratory program shall be retained by Resolute Forest Products in the Safety Office.
- 4. Written materials required to be retained under this paragraph shall be made available upon request to affected employees and to the Assistant Secretary of Labor for OSHA or their designee for examination and copying.

#### **RESPONSIBILITIES**



#### A. Safety Department

The Health and Safety Manager will coordinate the respiratory protection program. The program coordinator will have the authority to act on all matters relating to the operation and administration of the respiratory protection program and is primarily responsible for:

- 1. Proper selection of respirators to be used in the mill.
- 2. Determining the nature and degree of actual or potential exposure to hazards, and assisting each department in proper respirator selection for each task.
- 3. Coordinating training programs on proper use and maintenance of respirators.
- 4. Ensuring that mill employees are medically qualified to wear a respirator.
- 5. Maintaining monthly inspection forms, generated by appropriate departments, on self-contained breathing apparatus.
- 6. Maintaining respiratory protection training records for employees.
- 7. Charging air cylinders according to manufacturer's instructions.
- 8. Evaluating the program as needed.

#### **B.** Department Management

Each department shall be responsible for:

- 1. Ensuring that employees have been trained in the specific use of the appropriate respirators.
- 2. Maintaining a current list of tasks that require respirators, and specify the correct type of respirator for each task.
- 3. Ensuring that respirators are used properly.
- 4. Ensuring that respirators are inspected for proper storage, cleanliness, and integrity at monthly intervals.
- 5. Ensuring that employees do not have facial hair that may interfere with the respirator's seals.
- 6. Maintenance of records to document employee training.

The program coordinator or their designee, will train department supervisory personnel on the following subjects:

- a) The basic requirements of the Occupational Safety and Health Administration's respiratory protection program and the requirements of this mill policy.
- b) The air contaminants and conditions to which employees may be exposed and the reasons for respiratory protection.
- c) The proper selection, use, and limitations of the different respirators in mill stores.
- d) Proper cleaning, storage and inspection of respirators.
- e) The legal requirements pertinent to the use of respirators.

## f) Emergency applications.

The supervisor/designee will conduct training for his employees based on the following subjects:

- a) The nature of the air contaminant and the potential hazard.
- b) The proper use and limitations of the selected respirator.
- c) Explanation of the reasons for wearing a respirator.
- d) Properly wearing and checking the respirator for leaks.
- e) Instructions on proper respirator storage, maintenance and cleaning.
- f) Basic understanding of government regulations.

Training shall be documented with employee's name and date. Records shall be forwarded to the Safety department.

#### C. Employees

The employee shall be responsible for:

- 1. Being familiar with procedures for the routine and emergency use of respirators that might be required to perform their job.
- 2. Inspecting the respirator before and after each use and during cleaning.
- 3. Properly wearing the respirator and checking for proper fit.
- 4. Properly cleaning and storing the respirator after each use.
- 5. Making sure a respirator is replaced if it is defective.
- 6. Contacting the supervisor if inhalation of air contaminants occurs while wearing a respirator.
- 7. Maintaining facial hair in accordance with this policy.
- 8. Reporting any medical changes or conditions that may affect their ability to wear the assigned equipment.

## D. Health Services

The Health Services staff will be responsible for:

- 1. Determining the physical condition of Resolute Forest Products employees relative to wearing a respirator.
- 2. Medical clearance by the medical advisor.
- 3. Maintaining adequate medical surveillance records for respirator users.
- 4. Conduct respirator fit-testing as needed and initial training on proper fit of a respirator.



5. Notifying departments of the status of an employee who has received medical clearance for wearing a respirator.

# PROGRAM EVALUATION

- 1. The effectiveness of the respiratory protection program will be evaluated annually by the program administrator to ensure compliance with federal and state regulations. The program administrator will conduct evaluations of the workplace to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.
- 2. The program administrator will regularly consult with employees affected by this program to assess the employees' views on program effectiveness and to identify problems. Factors to assess include, but are not limited to:
  - a) Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);
  - b) Appropriate respirator selection for the hazards to which the employee is exposed;
  - c) Proper respirator use under the workplace conditions the employee encounters; and
  - d) Proper respirator maintenance.



Effective: December 9, 2010 Revised Date: February 22, 2013