RHODE ISLAND COLLEGE
Voluntary Respirator Program

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RHODE ISLAND COLLEGE
VOLUNTARY RESPIRATORY PROTECTION PROGRAM

I. OVERVIEW

The Rhode Island College (RIC) Respiratory Protection Program establishes guidelines for respirator use, training, selection, storage, and maintenance. This program is based on the Occupational Safety and Health Administration (OSHA) respiratory protection standard (29 CFR 1910.134).

II. RESPONSIBILITY

1. Employer

RIC is responsible for providing respirators to employees when they are necessary for health protection. RIC will provide respirators that are applicable and suitable for the intended purpose. Any expense associated with training, medical evaluations and respiratory protection equipment will be borne by the RIC.

2. Program Administrator

The duties of the Respiratory Protection Program Administrator (Mr. Crandon Whitsitt-Lynch) include:

a) Identifying work areas, process or tasks that require respirators.
b) Evaluating hazards.
c) Selecting respiratory protection options.
d) Monitoring respirator use to ensure that respirators are used in accordance with their specifications.
e) Arranging for and/or conducting training.
f) Conducting fit testing
g) Administering the medical surveillance program.
h) Maintaining records required by the program.
i) Evaluating the program.
j) Updating written program, as needed.

3. Employees

Each employee is responsible for wearing his or her respirator when and where required and in the manner in which they are trained. Employees must also:

a) Care for and maintain their respirators, and store them in a clean, sanitary location.
b) Inform the Program Administrator if their respirator no longer fits well, or is damaged.
c) Inform the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding this program.
d) Use the respirator in accordance with the manufacturer's instructions and the training received.

III. APPLICABILITY

This program applies to all employees who voluntarily wear respirators during normal work operations, as well as during some non-routine operations.

In addition, any employee who voluntarily wears a respirator when one is not required is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and will be provided with necessary training. Employees who voluntarily wear filtering face pieces (dust masks) are not subject to the medical evaluation, cleaning, storage, and maintenance provisions of this program.

IV. PROGRAM

1. Hazard Assessment and Respirator Selection

The Program Administrator will select respirators, based on the hazards to which workers are exposed and in accordance with the OSHA Respiratory Protection Standard. The Program Administrator will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. See Hazard Assessment, Attachment A.

The hazard evaluations shall include:

a) List of hazardous substances used in the workplace by department or work process.
b) Review of work processes to determine where potential exposures to hazardous substances may occur.
c) Exposure monitoring to quantify potential hazardous exposures.

The type of respirator for the specific hazard involved will be selected in accordance with the manufacturer's instructions.

2. Updating the Hazard Assessment

The Program Administrator will revise and update the hazard assessment (Attachment A) when work process changes may potentially affect exposure. Employees should contact the Program Administrator with any concerns or questions about hazards or respirator use. The Program Administrator will evaluate the potential hazard and communicate the results to the employees. If respiratory protection is necessary, the respiratory program will be updated.

3. Training

Training will be provided to respirator users on the contents of the RIC Respiratory Protection Program and their responsibilities, and on the OSHA Respiratory Protection Standard. All affected employees will be trained prior to using a respirator in the workplace.

The training will cover the following topics:

a) the RIC Respiratory Protection Program;
b) the OSHA Respiratory Protection Standard (29 CFR 1910.134);
c) respiratory hazards encountered at Bioverativ Therapeutics and their health affects;
d) proper selection and use of respirators;
e) limitations of respirators;
f) respirator donning and user seal (fit) checks;
g) fit testing;
h) emergency use procedures;
i) maintenance and storage; and
j) medical signs and symptoms limiting the effective use of respirators.

Employees will be retrained annually or as needed (e.g., if they change departments or work processes and need to use a different respirator).

Respirator training documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

4. NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while the respirator is in use.

5. Voluntary Respirator Use

The Program Administrator shall authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of medical evaluations.

The Program Administrator will provide all employees who voluntarily choose to wear respirators with a copy of Appendix D of the OSHA Respiratory Protection Standard. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees who choose to wear a respirator must comply with the procedures for Medical Evaluation, Respirator Use, Cleaning, Maintenance and Storage portions of this program.

6. Medical Evaluation

Employees who are either required to wear respirators, or who choose to wear a respirator voluntarily, must pass a medical evaluation provided by RIC before being permitted to wear a respirator on the job.

The Program Administer or supervisor will provide access to a College Health Services Professional to perform the medical assessment.

After an employee has received clearance to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:

a) The employee reports signs and/or symptoms related to their ability to use the respirator, such as shortness of breath, dizziness, chest pains or wheezing.
b) The evaluating physician or supervisor informs the Program Administrator that the employee needs to be reevaluated.
c) Information found during the implementation of this program, including observations made during the fit testing and program evaluation, indicates a need for reevaluation.
d) A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

All examinations and questionnaires are to remain confidential between the employee and the physician. The Program Administrator will only retain the physician's written recommendations regarding each employee's ability to wear a respirator.

7. Fit Testing

Employees who wear respirators will be fit tested:

a) prior to being allowed to wear any respirator with a tight-fitting face piece;
b) annually; or
c) whenever, there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).

Employees will be fit tested with the make, model, and size of respirator that they will actually wear. Employees will be provided with several models and sizes of respirators so that they may find an optimal fit.

The Program Administrator or designee will conduct fit tests in accordance with the OSHA Respiratory Protection Standard.

8. Program Evaluation

The Program Administrator will conduct periodic evaluations to ensure that this program is implemented. Deficiencies will be identified, and a plan put in place to correct them.

9. Documentation and Recordkeeping

1. A written copy of this program and the OSHA Respiratory Protection Standard shall be made available to all employees.

2. Copies of training and fit test records shall be maintained by the Program Administrator or designee. These records will be updated as new employees

are trained, as existing employees receive refresher training, and as new fit tests are conducted

3. For employees covered under the Respiratory Protection Program, the Program Administrator or designee shall maintain copies of the physician's written recommendation regarding each employee's ability to wear a respirator. The completed medical questionnaires and evaluating physician's documented findings will remain confidential.

Appendix A
General Respirator Use Procedures

1. Employees will use their respirators under conditions specified in this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.

2. All employees shall conduct user seal checks each time they wear their respirators. Employees shall use either the positive or negative pressure check (depending on which test works best for them) as specified in the OSHA Respiratory Protection Standard.

3. Positive Pressure Test: This test is performed by closing off the exhalation valve with your hand. Breathe air into the mask. The face fit is satisfactory if some pressure can be built up inside the mask without any air leaking out between the mask and the face of the wearer.

4. Negative Pressure Test: This test is performed by closing of the inlet openings of the cartridge with the palm of you hand. Some masks may require that the filter holder be removed to seal off the intake valve. Inhale gently so that a vacuum occurs within the face piece. Hold your breath for ten (10) seconds. If the vacuum remains, and no inward leakage is detected, the respirator is fit properly.

5. Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures that would prevent a proper seal. Employees are not permitted to wear headphones, jewelry, or other items that may interfere with the seal between the face and the face piece.

6. Before and after each use of a respirator, an employee or immediate supervisor must make an inspection of tightness or connections and the condition of the face piece, headbands, valves, filter holders and filters. Questionable items must be addressed immediately by the supervisor and/or Program Administrator.

Air Quality

1. For supplied-air respirators, only Grade D breathing air shall be used in the cylinders. The Program Administrator will coordinate deliveries of compressed air with RIC's vendor and will require the vendor to certify that the air in the cylinders meets the specifications of Grade D breathing air.

2. The Program Administrator or designee will maintain a minimum air supply of one fully charged replacement cylinder for each SAR unit.

Change Schedules

1. Respirator cartridges shall be replaced as determined by the Program Administrator, supervisor(s), and manufacturer's recommendations.

Cleaning

1. Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station. Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary. Atmosphere-supplying and emergency use respirators are to be cleaned and disinfected after each use.

2. The following procedure is to be used when cleaning and disinfecting reusable respirators:

    a) Disassemble respirator, removing any filters, canisters, or cartridges.
    b) Wash the face piece and all associated parts (except cartridges and elastic headbands) in an approved cleaner-disinfectant solution in warm water (about 120 degrees Fahrenheit). Do not use organic solvents. Use a hand brush to remove dirt.
    c) Rinse completely in clean, warm water.
    d) Disinfect all facial contact areas by spraying the respirator with an approved disinfectant.
    e) Air-dry in a clean area.
    f) Reassemble the respirator and replace any defective parts. Insert new filters or cartridges and make sure the seal is tight.
    g) Place respirator in a clean, dry plastic bag or other airtight container.

Maintenance

1. Respirators are to be properly maintained at all times in order to ensure that they function properly and protect employees adequately. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer. Repairs to regulators or alarms of atmosphere-supplying respirators will be conducted by the manufacturer.
2. All respirators shall be inspected routinely before and after each use.
3. Respirators kept for emergency use shall be inspected after each use, and at least monthly by the Program Administrator to assure that they are in satisfactory working order
4. A checklist will be used when inspecting emergency respirators.
5. A record shall be kept of inspection dates and findings for respirators maintained for emergency use.

Storage

1. After inspection, cleaning, and necessary repairs, respirators shall be stored appropriately to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.
2. Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program, and will store their respirator in a sealed container or plastic bag.
3. Respirators shall be packed or stored so that the face piece and exhalation valve will rest in a near normal position.
4. Respirators shall not be placed in places such as lockers or toolboxes unless they are in carrying cartons.
5. Respirators maintained at stations and work areas for emergency use shall be stored in compartments built specifically for that purpose, be quickly accessible at all times, and be clearly marked.

Respirator Malfunctions and Defects

1. For any malfunction of a SAR (supplied-air respirator), such as breakthrough, face piece leakage, or improperly working valve, the respirator wearer should inform his/her supervisor that the respirator no longer functions as intended, and arrange for repair.
2. All workers wearing supplied-air respirators will work with a buddy. The Program Administrator shall develop and inform employees of the procedures to be used when a buddy is required to assist a coworker who experiences a SAR malfunction.
3. Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his/her supervisor. Supervisors will give all defective respirators to the Program Administrator. The Program Administrator will decide whether to:

    a) temporarily take the respirator out of service until it can be repaired;
    b) perform a simple fix on the spot, such as replacing a head strap; or
    c) dispose of the respirator due to an irreparable problem or defect.

Hazardous Situations

In situations where an atmosphere exists in which the wearer of the respirator could be overcome by a toxic or oxygen-deficient atmosphere, the following procedure should be followed.

1. Employees who must remain in a potentially dangerous atmosphere must take the following precautions:
    a. Employees must never enter or remain in an IDLH atmosphere, or an atmosphere with unknown concentrations.
    b. Employees must never enter a potentially dangerous atmosphere without first obtaining the proper protective equipment and permission to enter from the Program Administrator or supervisor.

c. Employees must never enter a potentially dangerous atmosphere without at least one additional person present. The additional person must remain in the safe atmosphere.
d. Communications (voice, visual or signal line) must be maintained between both individuals and all present.
e. Employees are not trained as emergency responders, and are not authorized to act in such a manner.

ATTACHMENT A

HAZARD ASSESSMENT LOG

Process Location	Hazards	Exposure Levels	CONTROLS
Spray Booths	Non-toxic Particulates form spray and sand blasting operations	Not expected to exceed OSHA levels	The Booths themselves and the rooms they are contained within have appropriate ventilation and are used seldomly and for short periods of time. Particulate respirators (dust masks) are available and primarily for operator comfort.
Metals Workshop	Non-toxic Particulates from shop operations	Not expected to exceed OSHA levels	The room(s) contain appropriate ventilation and isolating engineering controls. Particulate respirators (dust masks) are available and primarily for operator comfort.
Printmaking Workshop	Acids used for etching	Not expected to exceed OSHA levels	The room contains appropriate ventilation. Mixing the chemiclas is controlled by SOP and only 3 people are permitted do the mixing. Particulate respirators (dust masks) are available and primarily for operator comfort.
Ceramics	Non Toxic Particulates from working with clay	Not expected to exceed OSHA levels	The room(s) contain appropriate ventilation. Particulate respirators (dust masks) are available and primarily for operator comfort.
Kiln Sanding	Silica Dust from the kiln	No expected to exceed OSHA level	Performed in High Ventilation area and respirators are worn. Performed by 1 individual only
Machine and Carpentry Shops	**Non-toxic paticulates** from shop operations, cutting, milling, grinding, turning.	Not expected to exceed OSHA, ACGIH levels.	General and spot ventilation, enclosures for equipment. Particulate respirators primarily for operator comfort.

VOLUNTARY RESPIRATOR FIT TEST RECORD

Date: _____ **Test Conducted by: _____**

Employee Name	SSN or Employee #	Job Title	Department

Respirator Selected:	Make	Model	Size
	☐ Other (Describe)		

Factors affecting fit (Check ones that apply)	Clean Shaven	☐	Scarring	☐	Beard Growth/ Moustache	☐
	Dentures/teeth absent	☐	Glasses	☐	Other	☐

Test Method	Sensitivity Test
Bitrex ☐ Irritant Smoke ☐	Pass ☐ Fail ☐ Number of Squeezes until taste: ≤ 10☐ ≤ 20☐ ≤ 30☐

Fit Test Procedure	Exercise	Pass	Fail
	1. Positive Pressure	☐	☐
	2. Negative Pressure	☐	☐
	3. Breathe Normally	☐	☐
	4. Breathe Deeply	☐	☐
	5. Turn Head (side to side):	☐	☐
	6. Nod Head:	☐	☐
	7. Recite Rainbow Passage (over)	☐	☐
	8. Bending at waist / run in place	☐	☐

FINAL TEST RESULT	PASS ☐	FAIL ☐

CERTIFICATION

The above respirator fit test was performed on and by the persons listed. The results indicate the performance of the listed respiratory protective device, as fitted on the employee named on this record under controlled conditions. Fit testing, as performed, measures the ability of the respiratory protective device to provide protection to the individual tested. Improper use, maintenance, or application of this or any other respiratory protective device will reduce or eliminate protection.

Employee Signature _____

RAINBOW PASSAGE

WHEN THE SUNLIGHT STRIKES RAINDROPS IN THE AIR, THEY ACT LIKE A PRISM AND FORM A RAINBOW.

THE RAINBOW IS A DIVISION OF WHITE LIGHT INTO MANY BEAUTIFUL COLORS.

THESE TAKE THE SHAPE OF A LONG ROUND ARCH, WITH ITS PATH HIGH ABOVE, AND ITS TWO ENDS APPARENTLY BEYOND THE HORIZON.

THERE IS, ACCORDING TO LEGEND, A BOILING POT OF GOLD AT ONE END.

PEOPLE LOOK, BUT NO ONE EVER FINDS IT.

WHEN A MAN LOOKS FOR SOMETHING BEYOND HIS REACH, HIS FRIENDS SAY HE IS LOOKING FOR THE POT OF GOLD AT THE END OF THE RAINBOW.

OSHA 1910.134 Appendix D: Information for Employees Using Respirators When Not Required Under the Standard

Part Number:1910
Part Number Title:Occupational Safety and Health Standards
Subpart:1910 Subpart I
Subpart Title:Personal Protective Equipment
Standard Number: 1910.134 App D
Title: (Mandatory) Information for Employees Using Respirators When not Required Under Standard.
GPO Source:e-CFR

Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.