

<b>Vermont Psychiatric Care Hospital Policy and Procedure</b>		
<b>Respirator Fit Testing</b>		
Effective: March 2021	Revised: August 2024	Due to Review: August 2026

**POLICY**

As part of the Vermont Psychiatric Care Hospital's (VPCH) compliance with OSHA Standard 29 CFR 1910.134, which requires employers to develop and implement a written respiratory protection program, VPCH will be administering fit testing procedures within this standard on site with VPCH personnel pursuant to the VPCH Respiratory Protection Program.

**PROCEDURE**

Personnel/vendors providing fit testing will follow the procedure outlined in the OSHA Standard 29 CRF 1910.134 and VPCH’s Respiratory Protection Program.

Employees whose position may require the use of a respirator should be preferably clean-shaven, but at a minimum cannot have facial hair that interferes with the seal of the respirator to the face.

Employees will receive education regarding the proper use of the respirator model to which they are fit tested. Education will include identifying when respirator use is required, how to properly don and doff the respirator, how to perform a user seal check, how and when to clean and disinfect the respirator (if applicable), and how and when to dispose of a respirator. Education shall occur at the time of hire for new employees and at that time of approval of the RPP for current employees. Education will occur annually thereafter.

1. Ensure all necessary supplies are available to provide testing. This includes:
  - a. HALO PAPR, ENVO Mask and N95 respirators (referred to as Filtering facepiece respirators (FFRs))
  - b. Medical Questionnaire and Fit Test Form
  - c. Qualitative Fit Test Kit: Fit test solutions (Bitrex and/or Saccharine solutions), two nebulizers, fit test hood
  - d. Quantitative Fit test supplies: PortaCount machine
2. Ensure medical questionnaire has been completed by personnel to be fit tested and signed off by a licensed medical professional (minimum qualification is RN).
3. Ensure the employee does not have any taste or smell issues.. Fit testing with the PortaCount machine is the preferred method for anyone with taste or smell issues.
4. Provide Employee with a respirator (either N95, PAPR or ENVO mask, depending on available supply).
5. Ensure employee has placed the facepiece properly on their face and instruct employee to complete a user seal check. If the employee fails the user seal checks, select another type of facepiece.
6. Perform fit test using either quantitative method or qualitative method, depending on model or respirator selected:
  - a. Quantitative fit testing method is preferred for Halo PAPR.

7. Qualitative Fit Test Procedure:

- a. Place hood over employee's head
- b. Perform sensitivity test
  - i. Administer 10 puffs of Bitrex or Saccharine solution into the hood (not directly into employee's mouth). Employee should not be wearing a respirator. Instruct employee to breath with an open mouth and tongue slightly protruded from mouth
  - ii. Instruct employee to identify if/when they can taste the solution. Administer 10 additional puffs (up to a maximum of 30 total puffs) if employee cannot taste the solution. If employee cannot taste the solution after 30 puffs, switch to a different solution or proceed with quantitative method of fit testing.
  - iii. Remove hood from employee's head
- c. Wait until the taste of solution is no longer present (employee may sip plain water to remove taste)
- d. Instruct employee to don respirator and perform user seal check.
- e. Place hood over employee's head
- f. Administer 10, 20 or 30 puffs of Bitrex or Saccharine solution into the hood depending on the results of the sensitivity test. Instruct employee to breath regularly for one minute.
- g. Repeatedly supply puffs of solution approximately every 30 seconds throughout all test exercises.
- h. Instruct the employee to perform the following test exercises for one minute each.
  - i. Take deep breaths.
  - ii. Turn head slowly side to side.
  - iii. Move head up and down slowly.
  - iv. Instruct employee to talk. Employee should talk loud enough to be heard clearly by the test conductor. Have employee read out loud the following text, Rainbow Passage:
 

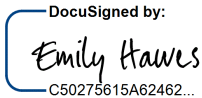
*When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow.*
  - v. Instruct employee to bend over at the waist as if to touch their toes.
  - vi. Breathe normally.
- i. Employee can remove mask and hood.
- j. The fit test is considered failed if an employee tastes the solution at any time during the test.
- k. The fit test is passed if the employee does not taste the solution throughout all test exercises.

8. Quantitative Fit Test Procedure

- a. Employee should wear respirator for five (5) minutes before beginning fit testing procedure.
- b. Check the respirator to ensure the sampling probe and line are properly attached to the facepiece and that the respirator is fitted with a particular filter capable of preventing significant penetration by the ambient particles used for the fit test as per the manufacturer's instruction.
- c. Check for the adequacy of the respirator fit and proper positioning.
- d. Instruct employee to perform a user seal check.
- e. Follow the manufacturer's instructions for operating the Portacount machine.
- f. Employee shall perform the following test exercises for one minute each:
  - i. Take deep breaths.
  - ii. Turn head slowly side to side.
  - iii. Move head up and down slowly.
  - iv. Instruct employee to talk. Employee should talk loud enough to be heard clearly by the test conductor. Have employee read out loud the following text, 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 reach, his friends say he is looking for the pot of gold at the end of the rainbow.*

- v. Grimace. The employee shall grimace by smiling or frowning for 15 seconds only.
  - vi. Instruct employee to bend over at the waist as if to touch their toes.
  - vii. Breathe normally.
  - g. Inquire about the comfort of the respirator. If respirator was uncomfortable, select another model and repeat fit testing procedure.
9. Complete the fit test form, entering employee's pass/fail status, date of fit test, model to which employee was fit tested, size of respirator, style, and overall fit factor (if quantitative method was used).
10. Send all completed fit test forms to education department/infection preventionists to be retained per OSHA Standard 29 CFR 1910.134 and 29 CFR1910.1020.

Approved by	Signature	Date
Emily Hawes, Commissioner, Vermont Department of Mental Health	 <p>DocuSigned by: Emily Hawes C50275615A62462...</p>	8/27/2024