

## **Qualitative Fit Testing**

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2/1/2022

WisCon Program



## **Online Program**

#### If you are having audio issues, you can

- call in on your phone
  - o Phone Number: +1 312-626-6799
  - Webinar ID: 972 5904 9893
  - Passcode: 5367440
- Use the live transcript (closed captions)

#### Slides available as a PDF

- Link in the chat
- slh.wisc.edu/occupational/wiscon/workplace-covid-19-consulting/

#### Online Program

Place questions in the zoom Q&A section, not chat





### **Online Program**

- Complete quiz and you can get a letter/certificate of attendance.
  - 22 Questions
  - Link to quiz will be available at the end of the program
  - Password at the end of the program needed.
  - Case sensitive password will be provided at end of the program

# Keep answering quiz <u>until you get the answer correct</u> to go to the next question



## Introduction

Kelli



## Background of Respiratory Protection Program

- Conduct a workplace risk assessment to determine necessity of RPP 1910.134
- Components of RPP include:
  - Written Program
  - Respirator Selection
  - Medical Evaluations
  - ✤ Fit Testing
  - Proper Use of Respirator
  - Respirator Maintenance
  - Employee training
  - Program Evaluation



#### **POLL QUESTION 1**









#### Respiratory Protection Based on Risk Assessment

#### ♦ Hazard Exceeds Levels.

- COVID Risk Assessment Working with Known/Suspect COVID-19
- FULL respiratory protection program (1910.134)

#### Hazard Below Levels (No COVID-19), Voluntary Use.

- Filtering facepiece respirator

   1910.134(c)(2)(ii)
- All other respirators
  - o 1910.134(c)(2)





## **Respiratory Protection Program**

- Administered by trained program administrator
- Provide at no cost:
  - Respirators
  - Training
  - Medical evaluations
- Written program with worksite specific procedures
- Copies of program must be kept by the employer
- Other records to be maintained:
  - Medical evaluations
  - Fit test records



#### **Program Resources**

To watch our training videos visit: <u>http://www.slh.wisc.edu/ppe-decon-uv-c/respiratory-protection-program-requirements-covid/</u>

- Fit test checklist with written respiratory protection plan template: <u>https://uwmadison.app.box.com/file/754699201950?s=nt1uh234b</u> <u>9p4q6mv76kykysds0dyb6zd</u>
- Online list of medical evaluation providers: <u>https://uwmadison.app.box.com/file/756650575212?s=l2sws9brzr</u> <u>fbm5wrrzp3or2h1p8pnm3f</u>

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PPE Decon UV-C

Respiratory Protection Program Requirements – COVID PPE DECON – RPP Program Requirements (Aug 2020) PPE Decon – Safe Conservation Webinar (June 2020) PPE-Decon – UVC-Users PPE-Decon – UVC-General PPE Decon – Nebraska PPE Decon – ETC Toaster PPE Decon – Cellulose Fibers

## Respiratory Protection Program Requirements for COVID-19

- This is an online, webpage, training program which details the OSHA requirements for a respiratory protection program.
- The intended audience for this training is the person(s) responsible for administering a workplace respiratory protection program. This training content is neither intended nor appropriate for use as required employee training for workplace respirator users.
- The scope of this training is limited and specific to the use of filtering facepiece N95 respirators for protecting employees from COVID-19 infection in the workplace. Each section has an outline, videos to provide the content, and resource links.
- Users of this training can either start at the beginning, or jump to the specific area if interest. Later modules may rely on information provided by earlier modules.
- Resource links are provided as a convenience and not as an endorsement. The use of product images is only an example, and not an endorsement.

All Wisconsin businesses are eligible to receive free and confidential professional consultation assistance with implementation of their respiratory protection program and other workplace safety and health issues by contacting the WSLH's WisCon On-Site Safety and Health Consultation Program or the COVID-19 Consulting Group.





Online providers of respirator medical evaluations\_public.docx



Log in



**Visconsin State** Laboratory of Hygiene UNIVERSITY OF WISCONSIN-MADISON WisCon Consultation Program **COVID-19 Consulting Group** 2810 Walton Commons Lane Madison, WI 53178 Phone: (608) 226-5246 FAX: (608) 226-5249 http://www.slh.wisc.edu/wiscon

#### Online providers of respirator medical evaluations

The following is a list of providers that can perform online respirator medical evaluations. This is not an endorsement of any one provider. There may be providers that can perform this service that are not included on this list. This list is not a statement of quality or confidence in the services provided. Additions to this list are welcome, please send requests to covidconsulting@slh.wisc.edu.

#### 3M

https://www.3m.com/3M/en\_US/safety-centers-of-expertise-us/respiratory-protection/respiratormedical-evaluations/

Examinetics https://www.examinetics.com/our-services/respirator-fit-clearance/

Dawson Compliance https://www.respclearance.com/



## **POLL QUESTION 2**



- An in-house medical professional.
- A local clinic.
- An online provider.
- We are not doing medical evaluations.



#### **Medical Evaluations Overview**

- Medical evaluations are required prior to fit-testing or use of a respirator
- Medical evaluations must be <u>free</u> for employees
- The respirator is used to protect employees' health and safety
- Not everyone is able to wear a respirator

#### **Medical Evaluation**

- Performed by a physician or other licensed healthcare professional (LHCP)
- Must consider employees health, specific job, respirator type, and working conditions
- Questions from Appendix C of the OSHA RPP standard must be answered
- Online evaluations can be used (cost associated)



Source: <u>Videoplasty.com</u>, <u>CCBY-SA 4.0</u>, via Wikimedia Commons



## Making the Medical Determination

- Starts by reviewing questionnaire by LHCP
- May require a follow-up medical exam
- In some cases can require additional tests
- Employer must ensure follow-up exam or testing is done during normal working hours or at a time convenient to the employee



#### The Recommendation

The healthcare professional will make a written recommendation

- This will focus one three things:
  - 1) How an employee is medically able to wear a respirator With or without restrictions
  - 2) If an employee needs follow-up evaluations
  - A statement that the healthcare professional has provided the employee a copy of their written recommendation
- The written recommendation cannot include any confidential medical information about the employee



#### When to be Medically Reevaluated

- Workers experience adverse health symptoms
- Have a change in health condition:
  - Become diagnosed with a heart condition, lung disease, significant changes to weight, or claustrophobia
- A medical professional, supervisor, or respirator program administer deem it necessary
- A change in workplace conditions occur



Source: <u>Videoplasty.com</u>, <u>CCBY-SA 4.0</u>, via Wikimedia Commons

### Reminders

When respirators are <u>required</u> by employers, <u>medical</u> <u>evaluations are required</u>

- Medical evaluations must be provided at <u>no cost</u> to the employee
- Questions from <u>Appendix C</u> of the RPP standard must be answered in the medical evaluation
- Medical evaluations must be done <u>before</u> fit testing can occur



#### **POLL QUESTION 3**



- Anytime
- Before fit testing
- It's not required.



## Fit Testing

Robert



## **OSHA Requirements Qualitative Fit Testing**

#### Respirator protection program

Fit test before use



#### Purpose

#### ✤ Train:

- Program administrators
- Fit test administrators
- Qualitative fit test:
  - Bitrex Bitter tasting
  - Sacchrin Sweet tasting
- Valid for any particulate respirator
  N95s



#### **POLL QUESTION 4**



- Taste
- Sight
- Instrument Readings

#### Planning for the Fit Test

No eating, drinking, smoking or chewing gum 15 minutes prior to test

Clean shaven

Medically cleared





### **Respirator Sealing Surface**

Tight seal is required to protect user

#### Ensure the following doesn't interfere:

- Facial hair
- Facial scars
- Jewelry
- Glasses or goggles
- Other PPE



#### **Facial Hair**



https://www.cdc.gov/niosh/npptl/pdfs/facialhairwmask11282017-508.pdf



#### **Differences for Fit Testing**

#### • Consider:

- The group you are working with
- Barriers to fit testing
- Cultural & religious
   differences



#### **Respirator Selection**

Pick the most acceptable respirator

- Provide sufficient # of models/sizes
- Minimum of two sizes
- Don the most comfortable mask
  - Wear for several minutes to assess
- Assess for comfort
- Assess for fit





#### Assessment of Comfort

- Review the following points
  - Position of mask on nose
  - Room for eye protection
  - Room to talk
  - Position of mask on face and cheeks

#### Adequacy of Fit

#### Criteria to determine fit:

- Chin properly placed
- Fit across nose bridge
- Adequate strap tension





#### **POLL QUESTION 5**



#### You can perform a fit test if a person has facial hair (a beard)?

- True
- False



# DEMONSTRATION OF FIT OF RESPIRATOR





#### **Too Small**












### Adequate Fit











### Fit Test Kit







### **POLL QUESTION 6**

### Have you already requested or received a fit test kit?





### **Nebulizer Preparation**

- Assemble and label the nebulizers
- Check insert
- Fill with ~1 mL of solution
- Test nebulizers

   Squeeze with your whole hand





### **Nebulizer Troubleshooting**

If nebulizer does not produce aerosol cloud

- Ensure that the plugs are removed
- Make sure insert is present
- Disassemble and wash with warm water
- Use wire tool to clean insert





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### Pre Fit Test

# Explain ProcedureVerify any medical conditions



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### **Fit Test Facilitator**



- Consider wearing an N95
- A procedural gown or Lab Coat
- Gloves









### **Sensitivity Screening**

#### Without a respirator

#### Instruct the participant to:

- Don the test hood
- Open mouth and extend tongue slightly
- Breath through the mouth during the test





### **Sensitivity Screening**

#### Assign sensitivity level:

- Between 1 and 10 squeezes = 10
- Between 11 and 20 squeezes = 20
- Between 21 and 30 squeezes = 30



"VNG Soldiers prepare for N95 mask fit testing missions" by Virginia Guard Public Affairs is licensed under CC BY-NC 2.0



# Sensitivity Screening Demonstration





### **Sensitivity Screening**

- ♦ After sensitivity test:
  - Wait to clear flavor
  - Water can help



#### Don Respirator

Perform a user seal check

#### Don the test hood







# Demonstration of proper donning and doffing & user seal check

After initial aerosol, start test
Renew every 30 seconds per chart

Sensitivity Test	1 - 10	11 - 20	21 – 30
Sensitivity Rating	10	20	30
Initial Pumps	10	20	30
Every 30 Seconds	5	10	15



### Step 1: Normal Breathing Add additional solution every 30 seconds



### Step 2: Deep Breathing Add additional solution every 30 seconds



### Step 3: Head Side-to-Side Add additional solution every 30 seconds



### Step 4: Head up and down Add additional solution every 30 seconds



### Step 5: Talking out loud (Rainbow Passage) Add additional solution every 30 seconds



### **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.



### Step 6: Bend at the waist or Jog in place Add additional solution every 30 seconds

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Step 7: Normal breathing Add additional solution every 30 seconds FINALTEST



#### Pass

Test agent not tasted

### ✤Fail

Test agent tasted during exercises



### **Test Failure Options**

### Re-don and re-adjust facepiece

### Try different:

- Model
- Size
- Type





### **Documentation of Fit Test**

- Date
- Name of tester
- Name of person being fitted
- Type of fittest
- Make model style and size
- Results
- Comment

### Cleaning

### Clean test hood

- Disinfect or
- Dispose

### Clean nebulizers

- Disinfect Nozzle
- Wash at end of day



### **Summary and Resources**



- Respiratory protection <u>is needed</u> if working with known or suspect COVID-19 individuals
- The person administering the respiratory protection program needs to have training and be knowledgeable on the respiratory protection standard.
- The medical evaluation needs to be completed prior to fit testing.
- The medical evaluation can be provided by:
  - Online medical evaluation provider
  - Occupational Health Clinic
  - Licensed healthcare professional



- The medical evaluation questionnaire comes from <u>Appendix C</u> of OSHA standard 1910.134
- Employees need to be medically reevaluated based on physician recommendation or medical evaluation expiration (traditionally every 1 to 2 years).
- Fit testing needs to occur <u>prior</u> to wearing a respirator
- Qualitative fit testing relies on sense of taste using either Bitrex or saccharin



Prior to fit testing a person shouldn't

Eat, Drink, Smoke, or Chew gum

Things that can effect the respirator sealing surface include:

- Facial hair, facial scars, jewelry, glasses/ googles, and other PPE
- The minimum number of respirator models and sizes needed for fit testing is <u>two</u>.
- Facial hair can impact fit testing. The CDC offers a handout on what is or isn't appropriate.
  - Example: Men with a full beard can't be fit tested.



- During respirator selection comfort and fit are assessed
- If the <u>sensitivity solution</u> is not tasted during the <u>sensitivity</u> <u>screening</u> another fit testing method is needed
- During the <u>fit test</u> is the fit testing solution <u>is tasted</u> then the person who is being fit tested <u>fails</u> the test and needs to:
  - Redon & adjust the respirator (try again)
  - Try a new model/ size/ type (try again)
  - Try quantitative fit testing (use different fit testing method)
  - Wear a PAPR (use a method of PPE that doesn't require fit testing)



- If the individual doesn't taste the fit test solution during the fit test they pass the fit test and the fit test administrator documents this by recording:
  - Name of tester, name of person being fitted, type of fit test used, the make/ model/ size of respirator, result, date, and any other notes or comments.



#### Sensitivity Screening

Sensitivity 10	Sensitivity 20	Sensitivity 30	
(1-10)	(11-20)	(21-30)	
10 squeezes to start test	20 squeezes to start test	30 squeezes to start test	
5 squeezes	10 squeezes	15 squeezes	
every 30	every 30	every3 0	
seconds during	seconds during	seconds	
test	test	during test	

- Fit Test Procedures
  - Normal Breathing
  - Deep Breathing
  - Move Head Side to Side
  - Move Up & Down
  - Talking (Rainbow Passage)
  - Bend at waist or Jog in Place
  - Normal Breathing
- Each exercise is 1 minute long



### **Request a Fit Testing Kit**

- Email <u>covidconsulting@slh.wisc.edu</u>
- Include:
  - Name of Organization
  - Name of Person receiving (Attn: Jane Doe)
  - Address
    - Can't be P.O. Box
  - Phone Number

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>>Consultation Services Request Form<<

### Monthly Newsletter

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#### WisCon Words of

#### Volume 1 | Issue 9 | December 1, 2021

Wisdom

WI COVID-19 by th	COVID		
Total Positive Cases	875,393		The <u>Vacci</u> was staye
Total Deaths	9,019		battle in t
Total Individuals Hospitalized	46,274		held by th law, which
DH5's Wisconsin Sun	The ETS a ees corpo		
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WI COVID-19 Vac	ing vaccin gram was		
Total Administered	7,666,450		<ul> <li>Requirem</li> <li>Developing</li> </ul>
Johnson & Johnson	303,545		Deter
Moderna	2,974,671		<ul> <li>Provid</li> </ul>
Pfizer	4,388,234		<u>Test r</u> Requi
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COVID-19 Update		12/6	Spotli
Temporary Electrical Wiring		12/13	Ann Jurko
How to Record Injuries and II- nesses on the OSHA 300 log		12/20	She has b and has p
No Webinar This Week		12/27	private se ters of Pu
Sign up <u>here</u> for w reminders! Click <u>b</u> vious webinars!	Environm dustrial H being on I poultry ar		

#### Vaccination, Testing, and Face Coverings ETS is NOT currently in effect. The ETS stayed by the 5th Circuit Court on Nov. 6th, 2021 and the ETS is facing a legal tie in the 6th Circuit Court after multiple cases were consolidated. If the ETS is upd by the courts, it is important to be prepared to implement it when required by , which may not leave a lot of time to prepare. Here are the basics of the ETS. . ETS applies to all business, regardless of industry, that have 100 or more employcorporate- or firm-wide. There are exceptions for employees who work in ithcare and fall under the previous ETS, exclusively outdoors, alone, or from home. original dates of compliance are January 4th 2022 for the entire program indudvaccination or weekly testing. December 6th 2021 is when the majority of the prom was set to be implemented. Contact the COVID Consulting Team with questions.

-19 Vaccination, Testing, and Face Coverings ETS

equirements: Develop, implement, and enforce a mandatory <u>OOVID-19 vaccination policy</u> OR a <u>policy allowing for vaccination or weekly OOVID-19 testing</u>. Determine the vaccination status of each employee and maintain records, Provide paid time to receive each dose and to recover from side effects, <u>Test non-vaccinated employees for OOVID-19 at least weekly</u>. Require employees to inform you of COVID-19 at least weekly. Require employees to inform you of COVID-19, Ensure that each employee with COVID-19, Ensure that each employee who is not fully vaccinated wears a face covering, Train employees in a language and at a literacy level the employee understands, Report work-related COVID-19 fatalities to OSHA within 8 hour and hospitalizations within 24 hours, and Make records available to OSHA, employees, and their representatives.

#### ootlight Corner— Ann Jurkowski

Ann Jurkowski is a field consultant providing soth COVID-19 and OSHA consultation services. She has been with the program for over a year and has prior experience in both public and private sectors. Ann has a B.S. in Biology, a Masers of Public Health, and a J.D. emphasized on invironmental Law. She is also a Certified Infustrial Hygienist. In her spare time, Ann enjoys seing on her hobby farm with her cows, ponies, soultry and lovable guard dogs, Ivy and Bailey.





### Weekly Video Webinar





## Attendance Quiz and Certificate

Quiz Link:

## https://forms.gle/KGNFMyPWn9kZJck18

# Password for Quiz is: WSLH

Keep selecting answers until you select the correct answer

Certificates will be sent out on Friday

### **Contact Information**

COVID-19 Consultation Team Wisconsin State Laboratory of Hygiene

#### Email: <u>covidconsulting@slh.wisc.edu</u> Phone: 608-226-5246

**Onsite Safety & Health Consultation Program** 





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