

CAHF Model Respiratory Protection Program



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Introduction

The California Association of Health Facilities (CAHF) model respiratory protection program (MRPP) is designed for adoption by individual skilled nursing facilities. The MRPP was developed in response to the threat of a respiratory infectious disease emergency such as pandemic influenza. The purpose of the MRPP is to programmatically equip skilled nursing facilities (SNFs) and long-term care (LTC) facilities to support public health and public welfare during an influenza pandemic or other respiratory disease emergency. By implementing the MRPP, it is hoped that individual facilities will be able to reduce or limit morbidity, mortality, and the spread of disease among staff and patients. This in turn will keep SNF patients out of acute care facilities. Those facilities able to implement and sustain a respiratory protection program will also be able to further contribute to the public health response during a communicable respiratory disease emergency.

Implementing the MRPP: Instructions for Use of the MRPP

This document contains the complete written administrative respiratory protection program needed for facilities to be compliant with the Cal/OSHA General Industry standard for respiratory protection (8 CCR 5144) and OSHA Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers (OSHA 3328-05, 2007). While not a general purpose infection control program, this MRPP does contain elements of infection control necessary to support respiratory protection and infection control. The MRPP is designed for use in response to an influenza pandemic or other infectious respiratory disease emergency; it is not a program designed for routine respiratory protection (e.g.,

for working with patients with active tuberculosis or for working with hazardous materials).

Facilities implementing this MRPP will need to:

- Formally adopt, as policy, the MRPP. The MRPP is largely concerned with the use of respirators for personal protection, and respirator use requires a written program. The MRPP contains all elements needed for that written program (except for those fill-in-the-blank fields needed to customize the MRPP to a given facility, such as the name of the program administrator).
- Designate a program administrator. This person might be the individual responsible for employee health and vaccination (note that the infection control nurse is probably too busy to take on this program). The program administrator can serve as the administrator for multiple facilities to the extent that they can effectively perform the tasks required.
- Maintain records of screening and training of staff. Model forms are included in this MRPP.
- Establish a medical clearance process. Create a relationship with an occupational medical department to provide medical evaluation/clearance for those staff that requires such additional screening. Two options are included.
 - One option (Option A) is a streamlined approach that is being tested as part of CAHF's Respiratory Protection Initiative (RPI), and involves the use of an online medical clearance questionnaire. Costs for this option are being covered by CAHF during the RPI pilot.
 - Option B is designed for facilities with their own existing relationships with occupational health care providers.
- Screen and train staff in the use of personal protective equipment (PPE). This screening and training (which includes fit testing of respirators) must occur after a person is hired.

This MRPP is intended to address infectious respiratory hazards, not chemical, radiological, or other hazards.

The adopting of this MRPP is optional. It is not required by regulation, statute, or standards at the present time. There is no need to adopt this program at this time. The advantage of this program is that it helps those facilities that wish to prepare for a pandemic or other infectious respiratory emergency to do so; it also provides a "just in time" program package in the event of a pandemic.

This MRPP provides a foundation of preparedness for pandemic and related circumstances. However, the exact conditions of a given pandemic virus or other organism cannot be known in advance. It may be necessary to modify the MRPP as the case definition, natural history, disease profile, or other characteristics of a specific outbreak become known.

Although not strictly required as part of the MRPP, it is also recommended¹ that facilities engage in occupational medical surveillance activities and priority use of vaccinations and antivirals. Surveillance activities include:

- maintaining a registry of healthcare workers (including housekeeping staff working in patient care areas) who have provided care for pandemic influenza-infected patients (confirmed or probable cases)
- maintaining a registry of staff who have recovered from pandemic influenza (confirmed or probable cases)
- encouraging self-reporting by employees of influenza-like symptoms
- monitoring work absenteeism for health reasons, especially in healthcare workers providing direct patient care
- screening all healthcare staff providing care to pandemic influenza-infected patients for influenza-like symptoms before each daily shift, so that symptomatic healthcare workers can be evaluated and excluded from duty.
- evaluation of all employees believed to have had significant clinical exposure to a highly pathogenic influenza strain. Such employees should be counseled about the risk of transmission to others; and monitored for fever, respiratory symptoms, sore throat, rhinorrhea (runny nose), chills, rigors, myalgia, headache, and diarrhea.

Vaccines and antiviral medications may be available to high priority workers such as healthcare facility employees. Facilities should coordinate with their local public health officials to receive priority access to such medication, and should maintain a registry of those staff who have received antivirals or vaccination.

A Concept of Operations/Concept of Care for SNFs During Pandemic

How should skilled nursing facilities respond to a pandemic or similar disease emergency? The activities outlined above support the following concept of operations/concept of care:

- Engage in community collaborative planning, such that skilled nursing facilities coordinate and plan with the local medical/health pandemic coordinator or other emergency medical planner.
- Keep SNF patients out of acute care hospitals (“holding our own”) by reducing morbidity and infection spread through the use of the MRPP.

¹ OSHA, Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers; 2007.

- Implement aggressive measures to control the spread of pandemic influenza as soon as possible after a pandemic strain of influenza is detected in a local region.
- Consider closing facilities to new admissions as an aggressive measure to keep pandemic infection out of the facility as long as possible.
- Cohort (group together) pandemic patients within a facility into specific wards, and consider dedicating separate entrances and passageways for patients and their families.
- Temporarily limit movement within the facility (e.g., serving meals on nursing units instead of in the dining room, canceling social and recreational activities).
- Prevent or delay pandemic virus entry into the facility by controlling visitors:
 - Post visual alerts (in appropriate languages) at the entrance to the facility restricting entry by persons who have been exposed to or have symptoms of pandemic influenza.
 - Enforce visitor restrictions by assigning personnel to verbally and visually screen visitors for respiratory symptoms at points of entry to the facility.
 - Provide signage and instruction on basic respiratory hygiene (e.g., cough etiquette, hand washing, etc.) for visitors entering the facility).
 - Provide a telephone number where persons can call for information on measures used to prevent the introduction of pandemic influenza.
- Prevent or delay pandemic virus entry into the facility by controlling staff assignments:
 - Assign dedicated staff to provide care for pandemic patients, and restrict those staff from working with non-influenza patients.
 - Utilize those staff who have apparently recovered from pandemic influenza to care for pandemic patients.
 - Reduce the risk of infection to staff particularly at risk for complications, such as pregnant women, immunocompromised persons and persons with respiratory diseases, through appropriate education, training, and use of personal protective equipment.
- Closely monitor guidance from local and state public health officials regarding the nature of the pandemic or other infectious disease emergency. Understanding the case definition (i.e., the characterization and description of the disease, its signs and symptoms, etc.) can help facilities better understand and respond to a given threat.
- Implement the MRPP to protect all staff.

Model Respiratory Protection Program

Facility Name: _____

Policy

It is the policy of this company to provide its employees with a safe and healthful work environment. The purpose of this program is to reduce employee exposure to infectious agents in the workplace through the proper use of respirators during an influenza pandemic or other infectious respiratory disease emergency. Respiratory protection is provided at no cost to the employees.

This policy includes the implementation of this respiratory protection program as a means of providing the highest levels of protection to employees during an influenza pandemic, as defined by OSHA.² Specific details of this guidance appear in the Appendix.

Program Administration

The following individual has ultimate total and complete responsibility for the administration of the respiratory protection program:

Name: _____

Title: _____

Telephone: _____

This individual has the authority to act on any and all matters relating to the operation and administration of the respiratory protection program. All employees, operating departments, and service departments will cooperate to the fullest extent. This person is referred to as the Respiratory Protection Program Administrator. This person will also be responsible for monitoring the ongoing and changing needs for respiratory protection

² Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers; OSHA 3328-05, 2007.

Roles and Responsibilities

Respiratory Protection Program Administrator (RPPA)

The Respiratory Protection Program Administrator is responsible for administering the respiratory protection program. Duties of the RPPA include:

- Identify work areas, processes, or tasks that require respiratory protection. For this model program, this means identifying patient care areas and other circumstances likely to present a pandemic influenza transmission risk.
- Monitor Cal/OSHA policy and standards for changes and make changes to agency's policy
- Select respiratory protection products.
- Monitor respirator use to ensure that respirators are used in accordance with their certification.
- Distribute and ensure completion of the medical clearance questionnaire (which may be completed online).
- Provide required information to the physician or other licensed health care provider who will do medical evaluations of respirator users
- Ensure that respirator users have received a medical evaluation and are medically qualified to use a respirator
- Evaluate any feedback information or surveys.
- Arrange for and/or conduct training and fit testing.
- Ensure proper storage and maintenance of respiratory protection equipment.
- Annually review the implementation of the program in consultation with employees and their representatives.

Supervisor

The RPPA may also serve as the supervisor for the respiratory protection program. Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular units. Supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- Knowing the hazards in the area in which they work.
- Knowing types of respirators that need to be used.
- Ensuring the respirator program and worksite procedures are followed.
- Enforcing/encouraging staff to use required respirators.
- Ensuring employees receive training and medical evaluations.
- Coordinating annual retraining and/or fit testing.
- Notifying the RPA with problems with respirator use, or changes in work processes that would impact airborne contaminant levels.
- Ensure proper storage and maintenance of all respirators.

Employee

It is the responsibility of the employee to have an awareness of the respiratory protection requirements for their work areas (as explained by management). Employees are also responsible for wearing the appropriate respiratory protective equipment according to proper instructions and for maintaining the equipment in a clean and operable condition. Employees should also:

- Participate in all training.
- Maintain equipment.
- Report malfunctions or concerns.

Program Scope and Application

This program applies to all employees who could potentially be exposed to airborne respiratory illnesses during routine work operations in the event of an influenza pandemic or other infectious respiratory disease emergency. Some of the types of work activities required to wear respirators are outlined in the table below:

Work Process	Location	Type of Respirator
Direct patient care	Patient care areas	N95 – disposable PAPR
Housekeeping, cleaning	Patient care areas where pandemic/respiratory patients have stayed	N95 – disposable PAPR

Identifying Work Hazards

The respirators selected will be used for respiratory protection from potentially airborne infectious diseases; they do not provide protection from chemical exposure. Through normal working situations employees may be asked to have contact with patients who could be infected with a potentially airborne infectious agent such as the influenza virus.

Respirator Selection

Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH) will be selected and used.

Check those in use at this facility:

_____ N95 respirators are available for patient contact/care.

_____ A powered air-purifying respirator (PAPR) is available for patient contact/care (if your facility has purchased or obtained one).

A PAPR may be selected for use if:

- The N95 respirator choice(s) does not fit;
- Employee has facial hair or facial deformity that would interfere with mask-to-face seal (facial hair such as a mustache must fit within the seal of the mask);
- The N95 respirator choice(s) are unavailable; or,
- Desired for high-risk aerosol-generating procedures

Respirator Training and Fit Testing

Training

Workers will be trained prior to the use of a respirator, at least annually thereafter, and whenever supplemental training is deemed necessary by the Respiratory Protection Program Administrator, or when conditions in the workplace effecting respirator use change. Training will cover:

- Identifying hazards, potential exposure to these hazards, and health effects of hazards.
- Respirator fit, improper fit, usage, limitations, and capabilities for maintenance, usage, cleaning, and storage.
- Inspecting, donning, removal, seal check and trouble shooting.
- Explaining respirator program (policies, procedures, Cal/OSHA standard, resources).

Fit Testing

After the initial fit test, fit tests must be completed at least annually, or more frequently if there is a change in status of the wearer or if the employer changes model or type of respiratory protection (see below). As of 7/1/04 the Cal/OSHA Respiratory Protection Standard 8 CCR 5144 applies to health care workers. This template will be changed to reflect the most current OSHA regulations as new information becomes available.

The fit testing procedure appears in Appendix A to this program.

Fit tests are conducted to determine that the respirator fits the user adequately and that a good seal can be obtained. Respirators that do not seal do not offer adequate protection. Fit testing is required for tight fitting respirators.

Fit tests will be conducted:

1. Prior to being allowed to wear any respirator.
2. If the facility changes respirator product.
3. If the employee changes weight by 10% or more, or if the employee has changes in facial structure or scarring.

5. If the employee reports that a respirator that previously passed a fit-test is not providing an adequate fit
6. If the RPPA, PLHCP or other supervisor notices a change in employee that would require an additional fit-test as Cal/OSHA standards require.

Fit testing will not be done on employees with facial hair that passes between the respirator seal and the face or interferes with valve function. Such facial hair includes stubble, beards and long sideburns.

Optional – if a facility is using PAPRs: If it is determined that an individual cannot obtain an adequate fit with any tight fitting respirator, a loose fitting powered air purifying respirator may be provided instead.

Medical Evaluation

Persons assigned to tasks that require respiratory protection during an influenza pandemic or other respiratory disease emergency must be physically and psychologically able to perform the tasks while wearing a respirator.

Employees who are required to wear respirators during an influenza pandemic or infectious respiratory disease emergency must participate in a medical evaluation before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until receiving medical clearance according to the process identified below.

A mandatory medical evaluation questionnaire (specified in Section 5144(c)) must be used and reviewed by the physician or other licensed healthcare professional (PLHCP) specified below by the employer, or a medical evaluation with the same content must be provided by a PLHCP. If the PLHCP deems it necessary, the employee will receive an examination. The purpose of the medical evaluation is to determine if the employee is physically and psychologically able to perform the assigned work while wearing the respiratory protective equipment.

The medical evaluation may be kept with the PLHCP or with the employee's medical record. It should not be kept in an employee's personnel file.

Designate Option A or Option B, and complete the appropriate entries.

_____ *Option A: On-line Questionnaire*

Medical evaluation will be accomplished using the online questionnaire at www.respexam.com. The designated physician or other licensed healthcare professional (PLHCP) is Dr. William Lohman. Those employees that require

further screening will be evaluated in person at an occupational medicine clinic or by a provider/PLHCP identified by the employer.

Detailed directions appear in Appendix B.

Medical reevaluation will occur annually.

_____ *Option B: Designate A Physician or Other Licensed Healthcare Professional Currently Affiliated with the Facility/Employer (PLHCP)*

_____ (*Indicate appropriate provider*): *occupational health physician, personal physician*) will determine individual medical clearance by a medical questionnaire and/or medical exam. A medical evaluation questionnaire is provided in Appendix C for use by the PLHCP. A standardized memo requesting evaluation is provided in Appendix D.

The medical evaluation procedures are as follows:

- The medical evaluation will be conducted using the questionnaire provided in Appendix C. The Program Administrator will provide a copy of this questionnaire to all employees requiring medical evaluations.
- To the extent feasible, the facility will assist employees who are unable to read the questionnaire by providing the questionnaire in alternate languages. When this is not possible, the employee will be sent directly to the medical practitioner for medical evaluation.
- All affected employees will be given a copy of the medical questionnaire to fill out. Employees will be provided with a stamped envelope addressed to the PLHCP, as well as the number for the PLHCP if the employee wishes to discuss the questionnaire. The employee will complete the questionnaire and submit the questionnaire via mail to the PLHCP. Employees will be permitted to fill out the questionnaire on company time.
- Follow-up medical exams will be granted to employees as required by this program, and/or as deemed necessary by the medical practitioner.
- All employees will be granted the opportunity to speak with the medical practitioner about their medical evaluation, if they so request.

Re-evaluation will be conducted under these circumstances:

- Employee reports physical symptoms that are related to the ability to use a respirator, (e.g., wheezing, shortness of breath, chest pain, etc.)
- It is identified that an employee is having a medical problem during respirator use.
- The healthcare professional performing the evaluation determines an employee needs to be reevaluated.
- A change occurs in the 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 _____ (*occupational health physician, personal physician*).

Medical reevaluation will occur every four years, unless a different frequency is specified by the PLHCP.

Proper Respirator Use

General Use

Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of the selected model(s). In addition, the respirator shall not be used in a manner for which it is not certified by the National Institute for Occupational Safety and Health (NIOSH) or by its manufacturer.

All employees shall conduct positive and negative pressure user seal checks each time they wear a respirator.

All employees shall leave a potentially contaminated work area to clean (PAPR) or change (N95 - disposable) their respirator if the respirator is impeding their ability to work. This means employees shall leave the contaminated area:

- If increased breathing resistance of the respirator is noted.
- If severe discomfort in wearing the respirator is detected.
- Upon illness of the respirator wearer, including: sensation of dizziness, nausea, weakness, breathing difficulty, coughing, sneezing, vomiting, fever and chills.
- To wash face to prevent skin irritation.

Additionally, employees will be required to immediately leave the contaminated or infected area:

- Upon malfunction of the respirator such as a reduction in air flow of a PAPR.
- Upon detection of leakage of contaminant into the respirator.
- Breathing through the respirator becomes more difficult.

Cleaning and Disinfecting

N95 – disposable: Discard after use. Discard if soiled, if breathing becomes more difficult, or if structural integrity is compromised. If patient is under Contact Precautions (e.g., MRSA, VRE, smallpox), discard the respirator after use with that patient.

PAPRs – [Cleaning and disinfection differ based on brand and manufacturer. Clean according to the manufacturer's instructions. Include those instructions here for the models used in each facility.]

Respirator Reuse

Disposable N95 respirators are not designed for reuse. However, concern about potential shortages of N95s during a pandemic has forced consideration of respirator reuse. Studying the issue, and in particular reference to N95s for healthcare worker use during a pandemic, the National Academy of Sciences offers this recommendation:

Despite these findings about the constraints of reuse, the committee makes a recommendation for extending the life of disposable N95 respirators for individual users. This recommendation is consistent with the Centers for Disease Control and Prevention's Interim Domestic Guidance on the Use of Respirators to Prevent Transmission of SARS (CDC, 2003).

Recommendation 1: Avoiding Contamination Will Allow for Limited Reuse.

If an individual user needs to reuse his or her own disposable N95 respirator, the committee recommends that it be done in the following manner:

- Protect the respirator from external surface contamination when there is a high risk of exposure to influenza (i.e., by placing a medical mask or cleanable faceshield over the respirator so as to prevent surface contamination but not compromise the device's fit).
- Use and store the respirator in such a way that the physical integrity and efficacy of the respirator will not be compromised.
- Practice appropriate hand hygiene before and after removal of the respirator and, if necessary and possible, appropriately disinfect the object used to shield it.

Respirator Inspection, Maintenance, and Storage

Inspection

All types of respirators should be inspected prior to use.

N95 - disposable

1. Examine the face piece of the disposable respirator to determine if it has structural integrity. Discard if there are nicks, abrasions, cuts, or creases in seal area or if the filter material is physically damaged or soiled.

2. Check the respirator straps to be sure they are not cut or otherwise damaged.
3. Make sure the metal nose clip is in place and functions properly (if applicable).
4. Disposable respirators are not to be stored after use. They are to be discarded.

PAPR

1. Check battery level

Inspect the breathing tube and body of the respirator, including the High Efficiency Particulate Air (HEPA) filter, if visible, for damage.

2. Examine the hood for physical damage (if parts are damaged, contact the Respiratory Protection Program Administrator).
3. Check for airflow prior to use.
4. Follow manufacturer's recommendations on maintenance, including battery recharging.

Repair

During cleaning and maintenance, respirators that do not pass inspection will be removed from service and will be discarded or repaired. Repair of the respirator must be done with parts designed for the respirator in accordance with the manufacturer's instructions before reuse. No attempt will be made to replace components or make adjustments, modifications or repairs beyond the manufacturer's recommendation.

Storage

Respirators not discarded after one shift use will be stored in a location where they are protected from sunlight, dust, heat, cold, moisture, and damaging chemicals.

Evaluating and Updating the Program

The Respiratory Protection Program Administrator will complete an annual evaluation of the respiratory protection program. She or he will:

- Evaluate any feedback from employees.
- Review any new hazards, case definitions, or other pandemic influenza guidance from public health agencies, or changes in policy that would require respirator use.
- Make recommendations for any changes needed in the respiratory protection program.

Appendices

Appendix A: Fit Test Procedure

Fit test procedures should be consistent with the fit testing equipment being used. The CAHF MRPP provides the 3M Qualitative Fit Test Instructions for Use. If equipment other than the 3M FT-10 or FT-30 apparatus is being used, please consult the manufacturer's instructions for fit test procedures.

Appendix B: Using the online medical evaluation questionnaire

The website is www.respexam.com. Detailed information on the 3M Respirator Medical Questionnaire and how the process works is available at that site, along with Frequently Asked Questions, a training demonstration, and other information. The following are the instructions from that website.

1. Sign up for the service by clicking on [Order on-line](#)
2. An email will be sent when the ordering process is complete. Please follow the link in that email to the instructions for how to finish setting up your account. What follows below is only an overview:

When the Administrator logs on the first time, blue arrows will guide them to required information they must complete. This includes "Respirator Profiles" - the conditions under which their employees wear respirators. A Respirator Profile Wizard will assist them in completing this step.

3. Once respirator profiles are set up, the Administrator should click on "Set Up Employee Log Ins", enter the names of their employees, then check the appropriate Respirator Profile(s) for each employee. When the employee information is saved, the system will automatically generate a unique login ID for each employee.
4. The administrator tells the system to generate an individual letter for each employee by clicking on the "Letters" box located beneath the list of employees. The letter will contain the employee's name, the website address, the telephone number to call if they need help, and their unique login ID. The system will allow the Administrator to print the letters locally so they can be distributed to employees.
5. Employees will be able to use their login IDs to access the system at www.respexam.com.

- If an employee is medically cleared, a letter will be faxed or emailed to the employer. That same employee may print their clearance letter from the computer screen or choose to have it mailed to their home. Employees not cleared will be notified by mail.

6. Some employees may need to have their medical questionnaires further reviewed by one of our physicians. After the review is completed, the employee will either be cleared or notified that additional information is needed to make a decision. When employees are cleared, a letter will be faxed or emailed to the employer and mailed to the employee as described above. Employees needing further evaluation will receive a letter containing the specific information needed by our physician to make their decision. Employers will be notified that the letter has been sent to the employee. The employer may choose to send the employee to the employee's personal physician or to a clinic the employer has chosen. The evaluating physician may choose to medically clear the employee, or may send the required information back to our occupational medicine physicians to make the final clearance determination.

7. The Administrator can login to the website day or night to:

- check the status of an employee
- have a medical clearance letter email resent to themselves
- see which employees are cleared to work under a certain "respirator profile".

Appendix C: Medical Evaluation Questionnaire – Sample

Note that where possible, answers have been provided for the skilled nursing industry.

OSHA RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE

To the employer: *Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.*

To the employee: Can you read (circle one): Yes No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory)

The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____
2. Your name: _____
3. Your age (to nearest year): _____
4. Sex (circle one): Male/Female
5. Your height: _____ ft. _____ in.
6. Your weight: _____ lbs.
7. Your job title: _____
8. A phone number where you can be reached by the healthcare professional who reviews this questionnaire (include the Area Code): _____
9. The best time to phone you at this number: _____
10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes No

11. Check the type of respirator you will use (you can check more than one category):
- a. N, R, or P disposable respirator (filter-mask, non- cartridge type only). **N95 for Healthcare**
 - b. Other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus). **Powered air-purifying respirator**
12. Have you worn a respirator (circle one): Yes No
If "yes," what type(s):

Part A. Section 2. (Mandatory)

Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month:
Yes No
2. Have you ever had any of the following conditions?
- a. Seizures (fits):
Yes No
 - b. Diabetes (sugar disease):
Yes No
 - c. Allergic reactions that interfere with your breathing:
Yes No
 - d. Claustrophobia (fear of closed-in places):
Yes No
 - e. Trouble smelling odors:
Yes No
3. Have you ever had any of the following pulmonary or lung problems?
- a. Asbestosis:
Yes No
 - b. Asthma:
Yes No
 - c. Chronic bronchitis:
Yes No
 - d. Emphysema:
Yes No
 - e. Pneumonia:
Yes No
 - f. Tuberculosis:
Yes No

- g. Silicosis:
Yes No
- h. Pneumothorax (collapsed lung):
Yes No
- i. Lung cancer:
Yes No
- j. Broken ribs:
Yes No
- k. Any chest injuries or surgeries:
Yes No
- l. Any other lung problem that you've been told about:
Yes No

4. Do you currently have any of the following symptoms of pulmonary or lung illness?
- a. Shortness of breath:
Yes No
 - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline:
Yes No
 - c. Shortness of breath when walking with other people at an ordinary pace on level ground:
Yes No
 - d. Have to stop for breath when walking at your own pace on level ground:
Yes No
 - e. Shortness of breath when washing or dressing yourself:
Yes No
 - f. Shortness of breath that interferes with your job:
Yes No
 - g. Coughing that produces phlegm (thick sputum):
Yes No
 - h. Coughing that wakes you early in the morning:
Yes No
 - i. Coughing that occurs mostly when you are lying down:
Yes No
 - j. Coughing up blood in the last month:
Yes No
 - k. Wheezing:
Yes No
 - l. Wheezing that interferes with your job:
Yes No
 - m. Chest pain when you breathe deeply:
Yes No
 - n. Any other symptoms that you think may be related to lung problems:
Yes No

5. Have you ever had any of the following cardiovascular or heart problems?

a. Heart attack:

Yes No

b. Stroke:

Yes No

c. Angina:

Yes No

d. Heart failure:

Yes No

e. Swelling in your legs or feet (not caused by walking):

Yes No

f. Heart arrhythmia (heart beating irregularly):

Yes No

g. High blood pressure:

Yes No

h. Any other heart problem that you've been told about:

Yes No

6. Have you ever had any of the following cardiovascular or heart symptoms?

a. Frequent pain or tightness in your chest:

Yes No

b. Pain or tightness in your chest during physical activity:

Yes No

c. Pain or tightness in your chest that interferes with your job:

Yes No

d. In the past two years, have you noticed your heart skipping or missing a beat:

Yes No

e. Heartburn or indigestion that is not related to eating:

Yes No

f. Any other symptoms that you think may be related to heart or circulation problems:

Yes No

7. Do you currently take medication for any of the following problems?

a. Breathing or lung problems:

Yes No

b. Heart trouble:

Yes No

c. Blood pressure:

Yes No

d. Seizures (fits):

Yes No

8. If you've used a respirator, have you ever had any of the following problems?
(If you've never used a respirator, check the following space and go to question 9:)
- a. Eye irritation:
Yes No
 - b. Skin allergies or rashes:
Yes No
 - c. Anxiety:
Yes No
 - d. General weakness or fatigue:
Yes No
 - e. Any other problem that interferes with your use of a respirator:
Yes No
9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire:
Yes No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you ever lost vision in either eye (temporarily or permanently):
Yes No
11. Do you currently have any of the following vision problems?
- a. Wear contact lenses:
Yes No
 - b. Wear glasses:
Yes No
 - c. Color blind:
Yes No
 - d. Any other eye or vision problem:
Yes No
12. Have you ever had an injury to your ears, including a broken eardrum:
Yes No
13. Do you currently have any of the following hearing problems?
- a. Difficulty hearing:
Yes No
 - b. Wear a hearing aid:
Yes No
 - c. Any other hearing or ear problem:
Yes No

14. Have you ever had a back injury:

Yes No

15. Do you currently have any of the following musculoskeletal problems?

a. Weakness in any of your arms, hands, legs, or feet:

Yes No

b. Back pain:

Yes No

c. Difficulty fully moving your arms and legs:

Yes No

d. Pain or stiffness when you lean forward or backward at the waist:

Yes No

e. Difficulty fully moving your head up or down:

Yes No

f. Difficulty fully moving your head side to side:

Yes No

g. Difficulty bending at your knees:

Yes No

h. Difficulty squatting to the ground:

Yes No

i. Climbing a flight of stairs or a ladder carrying more than 25 lbs:

Yes No

j. Any other muscle or skeletal problem that interferes with using a respirator:

Yes No

Part B

Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen:

Yes No

If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions:

Yes No

2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals:

Yes No

If "yes," name the chemicals if you know them:

3. Have you ever worked with any of the materials, or under any of the conditions, listed below:
 - a. Asbestos:
Yes No
 - b. Silica (e.g., in sandblasting):
Yes No
 - c. Tungsten/cobalt (e.g., grinding or welding this material):
Yes No
 - d. Beryllium:
Yes No
 - e. Aluminum:
Yes No
 - f. Coal (for example, mining):
Yes No
 - g. Iron:
Yes No
 - h. Tin:
Yes No
 - i. Dusty environments:
Yes No
 - j. Any other hazardous exposures:
Yes No

If "yes," describe these exposures:

4. List any second jobs or side businesses you have:

5. List your previous occupations:

6. List your current and previous hobbies:

7. Have you been in the military services?
Yes No

If "yes," were you exposed to biological or chemical agents (either in training or combat):

Yes No

8. Have you ever worked on a HAZMAT team?

Yes No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications):

Yes No

If "yes," name the medications if you know them:

10. Will you be using any of the following items with your respirator(s)?

a. HEPA Filters:

Yes No

b. Canisters (for example, gas masks):

Yes No

c. Cartridges:

Yes No

11. How often are you expected to use the respirator(s)? (Circle "yes" or "no" for all answers that apply to you):

a. Escape only (no rescue):

Yes No

b. Emergency rescue only:

Yes No

c. Less than 5 hours per week:

Yes No

d. Less than 2 hours per day:

Yes No

e. 2 to 4 hours per day:

Yes No

f. Over 4 hours per day:

Yes No

12. During the period you are using the respirator(s), is your work effort:

a. Light (less than 200 kcal per hour):

Yes No

If "yes," how long does this period last during the average shift:

_____ hrs. _____ mins.

Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

b. Moderate (200 to 350 kcal per hour):

Yes No

If "yes," how long does this period last during the average shift:
_____ hrs. _____ mins.

Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

c. Heavy (above 350 kcal per hour):

Yes No

If "yes," how long does this period last during the average shift:
_____ hrs. _____ mins.

Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator:

Yes No

If "yes," describe this protective clothing and/or equipment:

Gloves, occasionally gowns and eye protection as indicated for body fluid splashes.

14. Will you be working under hot conditions (temperature exceeding 77 deg. F):

Yes No

15. Will you be working under humid conditions:

Yes No

16. Describe the work you'll be doing while you're using your respirator(s):

Patient care in a skilled nursing facility or long term care facility.

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases): *Not applicable*

18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

Name of the first toxic substance:

Estimated maximum exposure level per shift:

Duration of exposure per shift:

Name of the second toxic substance:

Estimated maximum exposure level per shift:

Duration of exposure per shift:

Name of the third toxic substance:

Estimated maximum exposure level per shift:

Duration of exposure per shift:

The name of any other toxic substances that you'll be exposed to while using your respirator:

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and safety and well-being of others (for example, rescue, security): *Patient care*

Appendix D: Request for Medical Evaluation – Sample Memo – Patient Care Staff

Memorandum

To whom it may concern

From: _____ (Respiratory Protection Program Administrator)

Date:

Re: Medical evaluation for respirator use

_____ (Employee name), an employee of _____ (Facility name) is required to wear a respirator at work during an influenza pandemic or other infectious respiratory disease emergency. The employer requests that you provide this employee with a medical evaluation that meets the requirements outlined in Cal/OHSA Title 8, Section 5144(e).

We have provided you with this portion of the Respirator Standard. Please follow this procedure when you examine this employee.

An OSHA Respirator Medical Evaluation Questionnaire was provided to this employee. A completed questionnaire must be provided to you by the employee.

The following supplemental information is provided to you to assist in your evaluation of this employee's respirator use:

- A. The type and weight of the respirator that will be used: N95-disposable, or powered air-purifying respirator (PAPR) with loose-fitting head covering.
- B. The duration and frequency of the respirator use: routine patient care activities performed at the bedside in a skilled nursing facility
- C. The expected physical work effort: moderate work effort for up to 30 minutes at a time. This includes turning patients, feeding patients, and other patient care tasks typically performed while standing. Occasional brief heavy work effort (lifting and transferring patients) may also be required.
- D. Additional protective clothing and equipment that may be worn: gown and gloves.
- E. Temperature and humidity extremes experienced during work: none.

We request that you provide a signed statement on letterhead indicating that the employee is medically able to wear a respirator under the conditions described.

Please feel free to contact me if you have any questions.

Appendix E: Request for Medical Evaluation – Sample Memo – Housekeeping Staff

Memorandum

To whom it may concern

From: _____ (Respiratory Protection Program Administrator)

Date:

Re: Medical evaluation for respirator use

_____ (Employee name), an employee of _____ (Facility name) is required to wear a respirator at work during an influenza pandemic or other infectious respiratory disease emergency. The employer requests that you provide this employee with a medical evaluation that meets the requirements outlined in Cal/OHSA Title 8, Section 5144(e).

We have provided you with this portion of the Respirator Standard. Please follow this procedure when you examine this employee.

An OSHA Respirator Medical Evaluation Questionnaire was provided to this employee. A completed questionnaire must be provided to you by the employee.

The following supplemental information is provided to you to assist in your evaluation of this employee's respirator use:

- A. The type and weight of the respirator that will be used: N95-disposable, or powered air-purifying respirator (PAPR) with loose-fitting head covering.
- B. The duration and frequency of the respirator use: housekeeping activities performed in patient care areas and other areas at a skilled nursing facility.
- C. The expected physical work effort: moderate work effort for up to 30 minutes at a time. This includes cleaning floors and surfaces, typically performed while standing. Occasional brief heavy work effort (lifting and transferring supplies) may also be required.
- D. Additional protective clothing and equipment that may be worn: gloves.
- E. Temperature and humidity extremes experienced during work: none.

We request that you provide a signed statement on letterhead indicating that the employee is medically able to wear a respirator under the conditions described.

Please feel free to contact me if you have any questions.

Appendix F: Fit Test Record – Sample

FIT TEST RECORD

Name of respirator user/employee: _____

Test Date: _____

Position Title: _____

Department: _____

Location: _____

Challenge Agent Used:

Isoamyl Acetate Saccharin Bitrex

Respirator Make:

Survivair North MSA Racal 3M Moldex Wilson

Other:

Respirator Model: _____

Respirator Size: _____

Additional PPE

Worn: _____

Comments:

PASS / FAIL

Next fit-test due: _____

Appendix G: Related OSHA Guidance for Pandemic Influenza

The following is an excerpt from OSHA Guidance 3328-05, 2007. It is provided for information purposes only, not to define policy under this MRPP. "HHS" refers to the United States Department of Health and Human Services.

Personal Protective Equipment

Gloves

HHS recommends the use of gloves made of latex, vinyl, nitrile, or other synthetic materials as appropriate, when there is contact with blood and other bodily fluids, including respiratory secretions.

- There is no need to double-glove.
- Gloves should be removed and discarded after patient care.
- Gloves should not be washed or reused.
- Hand hygiene should be done after glove removal.

Because glove supplies may be limited in the event of pandemic influenza, other barriers such as disposable paper towels should be used when there is limited contact with respiratory secretions, such as handling used facial tissues. Hand hygiene should be practiced consistently in this situation.

Gowns

- Healthcare workers should wear an isolation gown when it is anticipated that soiling of clothes or uniform with blood or other bodily fluids, including respiratory secretions, may occur. HHS states that most routine pandemic influenza patient encounters do not necessitate the use of gowns. Examples of when a gown may be needed include procedures such as intubation or when closely holding a pediatric patient.
- Isolation gowns can be disposable and made of synthetic material or reusable and made of washable cloth.
- Gowns should be the appropriate size to fully cover the areas requiring protection.
- After patient care is performed, the gown should be removed and placed in a laundry receptacle or waste container, as appropriate. Hand hygiene should follow.

Goggles/Face Shields

The HHS Pandemic Influenza Plan does not recommend the use of goggles or face shields for routine contact with patients with pandemic influenza; however, if sprays or splatters of infectious material are likely, it states that goggles or a face shield should be worn as recommended for standard precautions. [4](#) For

additional information about eye protection for infection control, visit NIOSH's website at <http://www.cdc.gov/niosh/topics/eye/eye-infectious.html>.

If a pandemic influenza patient is coughing, any healthcare worker who needs to be within 3 feet of the infected patient is likely to encounter sprays of infectious material. Eye and face protection should be used in this situation, as well as during the performance of aerosol-generating procedures.

Respiratory Protection for Pandemic Influenza

While droplet transmission is likely to be the major route of exposure for pandemic influenza, as is the case with seasonal influenza, it may not be the only route. Given the potential severity of health consequences (illness and death) associated with pandemic influenza, a comprehensive pandemic influenza preparedness plan should also address airborne transmission to ensure that healthcare workers are protected against all potential routes of exposure. Establishment of a comprehensive respiratory protection program with all of the elements specified in OSHA's Respiratory Protection standard (29 CFR 1910.134) is needed to achieve the highest levels of protection. Additional information on the Respiratory Protection standard is included in Appendix C in this document. More information on the elements of a comprehensive respiratory protection program and the use of respirators can be found at <http://www.osha.gov/SLTC/respiratoryprotection/index.html>.

Healthcare workers are at risk of exposure to airborne infectious agents, including influenza. For some types of airborne infectious agents (such as SARS), healthcare workers are not only at risk for illness but may become a potential source of infection to patients and others. Selection of appropriate respiratory PPE requires an understanding of the airborne infectious agents, their infectious and aerodynamic properties, the operating characteristics of the PPE, and the behaviors and characteristics of the healthcare workers using the PPE. Many different types of respiratory PPE are available to protect healthcare workers, each with a different set of advantages and disadvantages.

There will continue to be uncertainty about the modes of transmission until the actual pandemic influenza strain emerges. It is expected that there will be a worldwide shortage of respirators if and when a pandemic occurs. Employers and employees should not count on obtaining any additional protective equipment not already purchased and stockpiled. Therefore, it is important for healthcare facilities to consider respiratory protection for essential personnel to assure that employees are ready, willing, and able to care for the general population.

Surgical Masks and Respirators

Although some disposable respirators look similar to surgical masks, it is

important that healthcare workers understand the significant functional difference between disposable respirators and surgical masks.

Respirators are designed to reduce an individual's exposure to airborne contaminants, such as particles, gases, or vapors. An air-purifying respirator accomplishes this by filtering the contaminant out of the air before it can be inhaled by the person wearing the respirator. A type of respirator commonly found in health-care workplaces is the filtering facepiece particulate respirator (often referred to as an "N95"). It is designed to protect against particulate hazards. Since airborne biological agents such as bacteria or viruses are particles, they can be filtered by particulate respirators. To assure a consistent level of performance, the respirator's filtering efficiency is tested and certified by NIOSH.

In comparison, surgical masks are not designed to prevent inhalation of airborne contaminants. Their ability to filter small particles varies greatly and cannot be assured to protect healthcare workers against airborne infectious agents. Instead, their underlying purpose is to prevent contamination of a sterile field or work environment by trapping bacteria and respiratory secretions that are expelled by the wearer (i.e., protecting the patient against infection from the healthcare worker). Surgical masks are also used as a physical barrier to protect the healthcare worker from hazards such as splashes of blood or bodily fluids. When both fluid protection (e.g., blood splashes) and respiratory protection are needed, a "surgical N95" respirator can be used. This respirator is approved by FDA and certified by NIOSH.

Another important difference in protecting health-care workers from airborne infectious agents is the way respirators and surgical masks fit the user's face. Respirators are designed to provide a tight seal between the sealing surface of the respirator and the person's face. A proper seal between the user's face and the respirator forces inhaled air to be pulled through the respirator's filter material and not through gaps between the face and respirator. Surgical masks, however, are not designed to seal tightly against the user's face. During inhalation, potentially contaminated air can pass through gaps between the face and the surgical mask, thus avoiding being pulled through the material of the mask and losing any filtration that it may provide.

When personal protective equipment is necessary to protect against droplet transmission of infectious agents, employees must place a barrier between the source of the droplet (e.g., a sneeze) and their mucosal surfaces. Such protection could include a surgical mask to cover the mouth and nose and safety glasses to cover the eyes. Recent studies show that aerosol penetration through a surgical mask is highly dependent on particle size, mask construction, and breathing flow rate. One study showed that penetration rates for submicron particles could be as high as 80 percent for surgical masks. Even relatively unconventional uses (e.g., the wearing of multiple surgical masks) have been

shown to be less protective than NIOSH-certified respirators. For example, research has shown that the use of up to five surgical masks worn by volunteers results in particle reduction of only 63 percent for one mask, 74 percent for two masks, 78 percent for three masks, and 82 percent for five masks, compared with a recommended reduction of at least 95 percent for properly fitted N95 respirators.

Current recommendations for reuse of respirators, which are based on assumptions that there will be respirator shortages, call for allocating four respirators per employee per eight-hour shift. This means reuse of respirators is permitted with pandemic influenza patients. However, respirators should *not* be reused if a patient has a contact-transmitted disease (such as methicillin-resistant staphylococcus aureus, or vancomycin-resistant enterococcus).

References

- *Interim Guidance on Planning for the Use of Surgical Masks and Respirators in Health Care Settings during an Influenza Pandemic*, <http://www.pandemicflu.gov/plan/healthcare/maskguidancehc.html>.
- NIOSH Respiratory Protection Program (<http://www.cdc.gov/niosh/topics/respirators/>)
- *Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers*, OSHA 3328-05, 2007
- *Reusability of Facemasks During an Influenza Pandemic: Facing the Flu*, National Academy of Science, 2006.
- US Department of Health and Human Services, 1999, OSHA Technical Manual: Respiratory Protection 29 CFR 1910.134 (<http://www.osha.gov/SLTC/etools/respiratory/oshfiles/otherdocs.html>)