UI Respiratory Medical Evaluation and Fit Test Policy

SUBJECT/TITLE: **RESPIRATOR MEDICAL EVALUATION AND FIT TEST POLICY FOR UNIVERSITY EMPLOYEES (Non-UIHC)**

PURPOSE: To explain the University policy on respirator medical evaluations and fit testing that a non-UIHC department must comply with prior to authorizing employee respirator use in that department.

DEFINITIONS:
UIHC – University of Iowa Hospitals & Clinics
EHS – Environmental Health & Safety
UEHC – University Employee Health Clinic
HCP – A Licensed Health Care Professional legally permitted to make a medical determination of employee fitness to use a respirator.
SCBA – Self-contained Breathing Apparatus

POLICY:

All employees required to wear a respirator must have an initial medical evaluation. For employees not required to wear respirators (which OSHA calls Voluntary Use), medical evaluations are required only if the device has an elastomeric (rubber or silicone) tight-fitting face piece.

Employees required to wear a tight-fitting face piece respirator must have an initial and then annual respirator fit test (an assessment to assure the respirator will fit properly under conditions of use).

The employing department is responsible for ensuring that respirator users complete their medical evaluations and fit tests.

Other requirements for respirator programs are addressed on the EHS website in the EHS document titled "Respirators/Dust Masks – Required and Voluntary." Other requirements include hazard assessments, assignment of Respirator Program Administrators, department specific written program, respirator selection, routine and foreseeable emergency situations, respirator maintenance, training, recordkeeping, and ongoing program evaluations.

MEDICAL EVALUATION:

A. Prior to initial use, medical evaluations shall be provided to employees required to use a respirator and in cases in which a voluntary-use respirator has an elastomeric tight-fitting face piece. In addition, employees who wear an SCBA are required to undergo an annual medical evaluation. UEHC will provide medical evaluations which may consist of completing a questionnaire or seeing the HCP, or both, at the discretion of the HCP. Employees scheduled to go to the UEHC will need to fill out the OSHA required Respirator Fitness Questionnaire and bring it with them to their appointment.

B. Additional medical evaluations are required under any of the following circumstances:

- If an employee reports medical signs or symptoms related to ability to use respirator;
- If the physician or other licensed healthcare provider, program administrator, supervisor recommends reevaluation;
- If information from the respirator program, including observations made during fit testing and program evaluation, indicates a need; or
- If a change occurs in workplace conditions that may substantially increase the physiological burden on an employee.

C. Medical evaluations will include:
1. A medical history, including previously diagnosed disease, particularly known cardiovascular or respiratory diseases;
2. Psychological problems or symptoms including claustrophobia;
3. Problems associated with breathing during normal work activities;
4. Past problems with respirator use;
5. Past and current usage of medication; and
6. Any known physical deformities or abnormalities, including those which may interfere with respirator use.

D. The following may disqualify an employee from wearing a respirator:
1. Facial deformities and facial hair, where the respirator forms a seal to the face;
2. Perforated tympanic membranes;
3. Respiratory diseases affecting pulmonary function;
4. Symptomatic coronary artery disease, significant arrhythmias, or history of recent myocardial infarction;
5. Endocrine disorders which may cause the employee to suffer sudden loss of consciousness or response capability;
6. Inability to perform coordinated movements and conditions affecting response and consciousness due to neurological disabilities;
7. Use of medications that affect judgment, performance or reliability or alter the state of awareness or consciousness;
8. A history of claustrophobia may require further evaluation; or
9. Any other condition which the physician believes might require special restriction.

FIT TESTS:

A. After written receipt of medical clearance from UEHC is received, each employee required to wear a tight-fitting face piece respirator must pass a respirator fit test. A fit test is not required for loose fitting helmet or hood respirators or for "not required" (voluntary) use respirators.

B. Ensuring that fit tests are completed is the responsibility of the department or laboratory in which the employee works. The fit tests can be contracted out or EHS will provide fit test procedure training if the department or laboratory decides to perform their own fit tests.

C. Fit testing will be performed before initial use of a respirator, annually thereafter, and whenever conditions (such as employee's physical condition) change that could affect respirator fit.

D. The fit test shall be administered using the OSHA-accepted protocol found in Appendix A in 29 CFR 1910.134, the OSHA respirator standard. Fit testing requires the respirator user to handle the respirator, have it fitted properly, test the face piece-to-face seal, and to wear it in normal air for a familiarity period. The fit test must be performed using the same make, model, style, and size respirator the employee will use. [Please note that separate respirator training is also required.]

E. Respirators requiring a protection factor of more than 10 must be fit tested using a quantitative method with a challenge agent.

REFERENCES AND CORRESPONDING POLICIES:

Occupational Safety and Health Administration (OSHA) respirator standard: 29 CFR 1910.134.

Respirators/Dust Masks – Required and Voluntary (EHS website)

Date Approved: 3/29/10
Date Effective: 4/1/10
Date Revised:
Date Reviewed:

UNIVERSITY OF IOWA
QUALITATIVE FIT TEST RECORD

Rev. 9/2011

Within the last year, you have been medically cleared by UEHC staff to wear a respirator and you have a "Respirator Fitness Medical Form". Yes__ No__

Since your last medical evaluation, you have **not** experienced any medical signs or symptoms that impact your ability to wear a respirator. Yes__ No__

*If you answered no to either question, **do not** proceed with the fit test. Contact UEHC (at 6-3631) to request an appointment. Fill out the OSHA questionnaire (see following 2 pages) and take with you to your appointment. Sign on the line immediately below:*

Employee's signature_____ Date _____

Name_____ Date_____

University I.D.# _____ Job Title_____

Department or Workgroup _____

Pos.___ and/or Neg.___ Pressure Check Employee Initials_____

Type of qualitative fit test used_____

Name of test operator_____Initials_____

Sensitivity Test: Pass ____/ Fail ____ Protection Factor = 10

# of squeezes needed to detect test solution 10 20 30

RESPIRATOR BRAND	MODEL	SIZE	PASS/FAIL?
#1_____	_____	S M L	P / F
#2_____	_____	S M L	P / F
#3_____	_____	S M L	P / F

NOTES: _____
_____
_____
_____

This record indicates that you have passed or failed a qualitative fit test as shown above for the particular respirators shown. You are only eligible to wear the respirator types for which you passed a fit test in the last 12 months. If you need or desire any additional type of respirator, you must pass a fit test on that specific type.

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Maintain this record in the employing department & send a copy to EHS

UNIVERSITY EMPLOYEE HEALTH CLINIC (UEHC) RESPIRATOR FITNESS QUESTIONNAIRE Page 1 of 2 **The University of Iowa Employee Health Clinic (UEHC) requests this information for the purpose of assuring patient care. This is confidential medical information and the UEHC does not routinely provide this information without your written consent.**	**DATE** **ID#** **NAME** **BIRTHDATE** **IF NOT IMPRINTED, PLEASE PRINT DATE, ID#, NAME**

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.

Can you read? (circle one) YES / NO

Mandatory The following information must be provided by every employee who has been selected to use any type of respirator.
(Please print)
Today's date: _____ Employee job title:_____

Employee name: _____ Day time phone #:_____

Employee age: _____ Sex: Male/Female Height: _____ft. _____in. Weight: _____lbs.

Check the type of respirator you will use (you may check more than one category):
____ N, R, or P disposable respirator (filter mask, non-cartridge type only)
____ Other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus)

Have you worn a respirator? No/Yes If yes, what type?_____

Questions 1 to 9 - Mandatory

CIRCLE APPROPRIATE ANSWERS (No/Yes and circle corresponding letters)

1. Do you **currently** smoke tobacco or have you smoked tobacco in the last month? No/Yes

2. Have you **ever had** any of the following conditions? No/Yes
   a. Seizures (fits)
   b. Diabetes (sugar disease)
   c. Allergic reactions that interfere with your breathing
   d. Claustrophobia (fear of closed-in places)
   e. Trouble smelling odors

3. Do you **currently** take medication for any of the following problems? No/Yes
   a. Breathing or lung problems
   b. Heart trouble
   c. Blood pressure
   d. Seizures (fits)

4. Have you **ever had** any of the following pulmonary or lung problems? No/Yes
   a. Asbestosis
   b. Asthma
   c. Chronic bronchitis
   d. Emphysema
   e. Pneumonia
   f. Tuberculosis
   g. Silicosis
   h. Pneumothorax (collapsed lung)
   i. Lung cancer
   j. Broken ribs
   k. Any chest injuries or surgeries
   l. Any other lung problem that you've been told about

NAME:
UEHC ID#

RESPIRATOR FITNESS QUESTIONNAIRE (cont'd)

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

6. Have you **ever had** any of the following cardiovascular or heart problems? No/Yes
   a. Heart attack
   b. Stroke
   c. Angina
   d. Heart failure
   e. Swelling in your legs or feet (not caused by walking)
   f. Heart arrhythmia (heart beating irregularly)
   g. Any other heart problem that you've been told about
   h. Have you ever had any treatment for any of the above in the past 10 years?

7. Have you **ever had** any of the following cardiovascular or heart symptoms? No/Yes
   a. Frequent pain or tightness in your chest
   b. Pain or tightness in your chest during physical activity
   c. Pain or tightness in your chest that interferes with your job
   d. In the past two years, have you noticed your heart skipping or missing a beat
   e. Heartburn or indigestion that is not related to eating
   f. Any other symptoms that you think may be related to heart or circulation problems

8. If you've used a respirator, have you **ever had** any of the following problems? No/Yes
   (If you've never used a respirator, check the following space and go to question 9): _____
   a. Eye irritation
   b. Skin allergies or rashes
   c. Anxiety
   d. General weakness or fatigue
   e. Any other problem that interferes with your use of a respirator

9. Would you like to talk about the answers to this questionnaire with the health care professional reviewing it? Yes/No

_____ / _____ _____
Patient Signature PLHCP Signature Date

_____ _____
NP/PA/MD Signature Date

THE UNIVERSITY OF IOWA
Quantitative Fit Test Record

Within the last year, you have been medically cleared by UEHC staff to wear a respirator and you have a "Respirator Fitness Medical Form". Yes__ No__

Since your last medical evaluation, you have **not** experienced any medical signs or symptoms that impact your ability to wear a respirator. Yes__ No__

*If you answered no to either question, **do not** proceed with the fit test. Contact UEHC (at 6-3631) to request an appointment. Fill out the OSHA questionnaire (see following 2 pages) and take with you to your appointment. Sign on the line immediately below:*

Employee's signature_____ Date _____

QUANTITATIVE FIT TEST RECORD

Name_____ Department_____

University I.D._____ Job Title _____

Fit Test Date _____

Respirator Brand _____ Test Operator _____

Model_____Test Apparatus _____

Size_____ Positive / Negative Pressure Check_____

FIT TEST ACTIVITY (90 seconds each)	**FIT FACTOR**
NORMAL BREATHING (sitting/standing in place, no talking)	_____
DEEP BREATHING (normal rate)	_____
TURN HEAD SIDE TO SIDE	_____
MOVE HEAD UP AND DOWN	_____
SPEAKING (read the rainbow passage, or similar)	_____
GRIMACE, SMILE, FROWN	_____
TOE TOUCH	_____
NORMAL BREATHING	_____
AVERAGE FIT FACTOR (minimum required _____**)**	_____

This record indicates that the employee listed above has passed a quantitative fit test for the specific brand, model, and size respirator listed. Employee is eligible to wear the type of respirator listed above. The respirator has a protection factor of _____, meaning when used properly and against contaminants it is approved for, the respirator provides adequate protection at concentrations up to but not exceeding _____ times the acceptable airborne level.

If the employee needs or desires to wear an additional type of respirator, he/she must take and pass a fit test on that respirator type.

Operator Initials _____ Employee Initials _____

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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.

Can you read? (circle one) YES / NO

Mandatory The following information must be provided by every employee who has been selected to use any type of respirator.
(Please print)
Today's date: _____ Employee job title:_____

Employee name: _____ Day time phone #:_____

Employee age: _____ Sex: Male/Female Height: _____ft. _____in. Weight: _____lbs.

Check the type of respirator you will use (you may check more than one category):
____ N, R, or P disposable respirator (filter mask, non-cartridge type only)
____ Other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus)

Have you worn a respirator? No/Yes If yes, what type?_____

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1. Do you **currently** smoke tobacco or have you smoked tobacco in the last month? No/Yes

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   c. Allergic reactions that interfere with your breathing
   d. Claustrophobia (fear of closed-in places)
   e. Trouble smelling odors

3. Do you **currently** take medication for any of the following problems? No/Yes
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   b. Heart trouble
   c. Blood pressure
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4. Have you **ever had** any of the following pulmonary or lung problems? No/Yes
   a. Asbestosis g. Silicosis
   b. Asthma h. Pneumothorax (collapsed lung)

c. Chronic bronchitis
d. Emphysema
e. Pneumonia
f. Tuberculosis
i. Lung cancer
j. Broken ribs
k. Any chest injuries or surgeries
l. Any other lung problem that you've been told about

5. Do you **currently** have any of the following symptoms of pulmonary or lung illness? No/Yes
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   d. Have to stop for breath when walking at your own pace on level ground
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Patient Signature PLHCP Signature Date

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