

**Appendix G**  
**Health screening questionnaire – environmental chamber**

**UNIQUE ID:**

DEMOGRAPHICS	
<b>Sex</b>	
<input type="radio"/> Male <input type="radio"/> Female	
<b>Race/Ethnicity</b>	
<input type="radio"/> White	<input type="radio"/> Black
<input type="radio"/> Asian	<input type="radio"/> American Indian or Alaska Native
<input type="radio"/> Native Hawaiian or Other Pacific Islander	<input type="radio"/> Hispanic or Latino
<input type="radio"/> Other Race	
<b>Education</b>	
<b>What is the highest grade or year of school you completed?</b>	
<input type="radio"/> Never attended school or only kindergarten	<input type="radio"/> Grades 1 through 8 (Elementary)
<input type="radio"/> Grades 9 through 11 (Some high school)	<input type="radio"/> Grades 12 or GED (High school graduate)
<input type="radio"/> College 1 year to 3 years (Some college or technical school)	<input type="radio"/> College 4 years or more (College graduate)
<b>Age</b>	
What is your age? _____	
<b>History</b>	
Please name any illnesses (including medical or surgical illnesses) that you have had or any injury for which you have been seen by a licensed medical provider.	
_____	
_____	
_____	
_____	
_____	
_____	
<b>Allergies</b>	
Please list any known allergies.	
_____	
_____	
_____	

## CHRONIC DISEASE

Has a doctor, nurse, or other health professional ever told you that you had any of the following?

Angina or coronary heart disease <input type="radio"/> Yes <input type="radio"/> No	Any type of cancer? <input type="radio"/> Yes <input type="radio"/> No List _____
Heart attack (also called myocardial infarction) <input type="radio"/> Yes <input type="radio"/> No	Skin disorder? <input type="radio"/> Yes <input type="radio"/> No List _____
Stroke <input type="radio"/> Yes <input type="radio"/> No	Diabetes <input type="radio"/> Yes <input type="radio"/> No
TIA (transient ischemic attack) <input type="radio"/> Yes <input type="radio"/> No	Kidney disease (do not include kidney stones, bladder infections, or incontinence) <input type="radio"/> Yes <input type="radio"/> No
Heart failure <input type="radio"/> Yes <input type="radio"/> No	Kidney stones <input type="radio"/> Yes <input type="radio"/> No
Atrial fibrillation <input type="radio"/> Yes <input type="radio"/> No	Bladder infections <input type="radio"/> Yes <input type="radio"/> No
Other irregular heart beat that requires medical management (e.g. arrhythmia) <input type="radio"/> Yes <input type="radio"/> No	Sleep apnea <input type="radio"/> Yes <input type="radio"/> No
Valvular heart disease <input type="radio"/> Yes <input type="radio"/> No	High blood pressure <input type="radio"/> Yes <input type="radio"/> No
Known heart murmur <input type="radio"/> Yes <input type="radio"/> No	High cholesterol <input type="radio"/> Yes <input type="radio"/> No
Peripheral artery disease <input type="radio"/> Yes <input type="radio"/> No	Hernia <input type="radio"/> Yes <input type="radio"/> No
Seizures <input type="radio"/> Yes <input type="radio"/> No	Tremors <input type="radio"/> Yes <input type="radio"/> No
Asthma <input type="radio"/> Yes <input type="radio"/> No	Neurological disorders, including balance problems <input type="radio"/> Yes <input type="radio"/> No List _____
COPD, emphysema, or chronic bronchitis <input type="radio"/> Yes <input type="radio"/> No	Hyperthyroidism <input type="radio"/> Yes <input type="radio"/> No
Other lung disease? <input type="radio"/> Yes <input type="radio"/> No _____	

List \_\_\_\_\_

### Asthma – answer ONLY if you have asthma

If you answered “yes” to asthma, please check all of the following that apply.

Do you have asthma symptoms during the daytime more than once a week?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have any limitation in your daily activities (including exercise)?	<input type="radio"/> Yes	<input type="radio"/> No
Do you need to use your inhaler for relief of symptoms more than once a week?	<input type="radio"/> Yes	<input type="radio"/> No
Has it been more than six months since you had an asthma attack?	<input type="radio"/> Yes	<input type="radio"/> No

### Diabetes – answer ONLY if you have diabetes

If you answered “yes” to diabetes, please answer the following questions.

When was your diabetes diagnosed (approximate year)?	_____	
Do you have kidney disease as a result of your diabetes?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have neuropathy (nerve disease) as a result of your diabetes?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have heart disease?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have eye problems as a result of your diabetes?	<input type="radio"/> Yes	<input type="radio"/> No
Do you take insulin?	<input type="radio"/> Yes	<input type="radio"/> No

Please list all medications that you take for diabetes:  
\_\_\_\_\_

### Kidney disease – answer ONLY if you have kidney disease

If you answered “yes” to kidney disease, please answer the following questions.

When was your kidney disease diagnosed (approximate year)?	_____
Please list any medications that you take for kidney disease.	_____

### Musculoskeletal

Please indicate whether any of the following conditions apply to you.

Joint replacement	<input type="radio"/> Yes	<input type="radio"/> No
Bone fracture within the past six months	<input type="radio"/> Yes	<input type="radio"/> No
Joint injury within the past six months	<input type="radio"/> Yes	<input type="radio"/> No
Tendon injury within the past six months (e.g., tendinopathy, tendonitis)	<input type="radio"/> Yes	<input type="radio"/> No
Ligament injury within the past six months (e.g., sprain)	<input type="radio"/> Yes	<input type="radio"/> No
Back surgery within the past six months	<input type="radio"/> Yes	<input type="radio"/> No

### Other Risk Factors

These risk factors could increase your risk of heart problems during the study, and therefore it is important that we know whether any of them apply to you. We will not share the results with anyone.

Do you have a family history of heart disease (father or brother(s) with heart disease before the age of 55 years, or mother or sister(s) with heart disease before the age of 65 years)?	<input type="radio"/> Yes	<input type="radio"/> No
Do you smoke cigarettes? <input type="radio"/> Yes <input type="radio"/> No If yes, _____ (number) cigarettes _____ (how often)		
Do you use marijuana?	<input type="radio"/> Yes	<input type="radio"/> No

Do you use other drugs (cocaine, heroin, methamphetamines, etc.)? List _____	<input type="radio"/> Yes	<input type="radio"/> No
<b>Symptoms</b>		
In the past month, have you had any difficulty or pain with swallowing food or liquids?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have any disorders of the esophagus?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have known or suspected obstructive disease or hypomotility disorders of the gastrointestinal tract (e.g. diverticulitis, inflammatory bowel disease, ileus, but NOT irritable bowel disorder)	<input type="radio"/> Yes	<input type="radio"/> No
Do you have problems swallowing?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have a cardiac pacemaker or implantable cardioverter defibrillator?	<input type="radio"/> Yes	<input type="radio"/> No
Have you previously had gastrointestinal surgery?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have chest discomfort or discomfort in the neck, jaw, or arms while exerting yourself or when doing daily activities of living?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have chest discomfort at rest?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have shortness of breath at rest or with mild exertion?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have shortness of breath that starts after sleep onset and is relieved by sitting up or getting out of bed?	<input type="radio"/> Yes	<input type="radio"/> No
Have you had dizziness, fainting or blackouts?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have palpitations (thumping sensation in the chest, or sensation of irregular heartbeat)?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have tachycardia (rapid heartbeat when not exerting yourself)?	<input type="radio"/> Yes	<input type="radio"/> No
Have you had unusual fatigue or shortness of breath with usual activities over the past 3 months?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have crampy pain in the legs that is brought on by exercise and relieved with rest?	<input type="radio"/> Yes	<input type="radio"/> No
Are you frequently thirsty (when you're not working)?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have to urinate frequently (when you're not working)?	<input type="radio"/> Yes	<input type="radio"/> No
Have you lost or gained a lot of weight recently?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have frequent joint pain?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have frequent back pain?	<input type="radio"/> Yes	<input type="radio"/> No
Do you have frequent swelling around your joints?	<input type="radio"/> Yes	<input type="radio"/> No
<b>Other</b>		
Have you had recent surgeries in past 3 months: _____hernia      _____cataract      _____other (please list) _____		
Do you have any reason to believe that you would have trouble walking on a treadmill, lifting weights, or stepping up and down on an 8-inch step in the heat?	<input type="radio"/> Yes	<input type="radio"/> No
Women only: Are you (or could you be) pregnant?	<input type="radio"/> Yes	<input type="radio"/> No
Women only: Date of last menstrual period _____		

## MEDICATIONS

Please indicate whether you are currently taking any medications within the following medication categories:

Diuretics

Yes  No

Antihistamines (prescription or over-the-counter, e.g. Benadryl, Claritin, Allegra)

Yes  No

Blood pressure medications (beta blockers, angiotensin receptor blockers, ACE inhibitors, calcium channel blockers) other than diuretics

Yes  No

Decongestants (e.g. Sudafed)

Yes  No

Depression medications

Yes  No

Prescription pain medications

Yes  No

Other psychiatric medications

Yes  No

Sedatives

Yes  No

List any other medications (including over-the-counter products) that you are currently taking.

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## HEAT ILLNESS/CONDITION AND TRAINING

### Have you ever had the following illnesses related to heat?

Heat Condition	Have you had this condition?	Number of work days lost, if any	Number of days it interfered with your day-to-day responsibilities (at work and home), if any
Heat stroke	<input type="radio"/> Yes <input type="radio"/> No		
Heat exhaustion	<input type="radio"/> Yes <input type="radio"/> No		
Heat cramps	<input type="radio"/> Yes <input type="radio"/> No		
Heat-related fainting	<input type="radio"/> Yes <input type="radio"/> No		
Heat rash	<input type="radio"/> Yes <input type="radio"/> No		

Have you received training on how to prevent heat-related illness?  Yes     No

Please rate how much you agree or disagree with the following statements:

My job duties often interfere with taking precautions against heat-related illness (i.e. taking breaks, drinking fluids, etc.)

Strongly agree     Agree     Undecided     Disagree     Strongly disagree

Workers are expected (by peers, supervisors, or themselves) to work through hot conditions, even if they don't feel well.

Strongly agree     Agree     Undecided     Disagree     Strongly disagree

### Over the past 6 months, have you had any of the following symptoms at work?

- |  |   |
|--|---|
| <input type="radio"/> Nausea                     | <input type="radio"/> Muscle weakness                               |
| <input type="radio"/> Dizziness/ Lightheadedness | <input type="radio"/> Confusion                                     |
| <input type="radio"/> Headache                   | <input type="radio"/> Excessive fatigue                             |
| <input type="radio"/> Irritability               | <input type="radio"/> Excessive thirst that was not easily quenched |
| <input type="radio"/> Profuse sweating           | <input type="radio"/> Muscle cramps or spasms                       |
| <input type="radio"/> Vomiting                   | <input type="radio"/> Decreased urine output or dark colored urine  |

## PHYSICAL FITNESS

Circle one number below that best describes your overall level of physical activity for the previous 6 months.

- |   |   |
|---|---|
| 1 | Avoids walking or exertion (for example, always uses elevators, drives when possible instead of walking).   |
| 2 | Light activity: Walks for pleasure, routinely uses stairs, occasionally exercises sufficiently to cause heavy breathing or perspiration.                |
| 3 | 10–60 minutes per week of recreation requiring modest physical activity (such as golf, bowling, weight lifting, or yard work).                          |
| 4 | Over 1 hour per week of recreation requiring modest physical activity (such as golf, bowling, weight lifting, or yard work).                            |
| 5 | Runs less than 1 mile per week or spends less than 30 minutes per week in comparable heavy physical activity (such as swimming, tennis, or basketball). |
| 6 | Runs 1–5 miles per week or spends 30–60 minutes per week in comparable heavy physical activity (such as swimming, tennis, or basketball).               |
| 7 | Runs 5–10 miles per week or spends 1–3 hours per week in comparable heavy physical activity (such as swimming, tennis, or basketball).                  |
| 8 | Runs more than 10 miles per week or spends more than 3 hours per week in comparable heavy physical activity (such as swimming, tennis, or basketball).  |

Describe the percentage of time that your physical activity at work is very light, light, moderate, and heavy.

Very light \_\_\_\_\_ %  
Light \_\_\_\_\_ %  
Moderate \_\_\_\_\_ %  
Heavy \_\_\_\_\_ %

**Have you participated in structured physical activity at least 30 minutes at moderate intensity on at least 3 days per week for the past 3 months?**

(Examples of moderate intensity exercise: stationary biking at light effort; pushups, sit-ups, lunges at light to moderate effort; moderate resistance training; water aerobics; dancing (ballroom, tap); walking or slow jogging)

Yes       No

**Please list the physical activities that you participate in on a regular basis:**

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## CURRENT WORK

Indicate your current occupation

- Miner
- Firefighter
- Construction worker

How long have you worked in your current occupation (mining, firefighting, or construction)?

\_\_\_\_\_ Years

How long have you worked at your current position or job?

\_\_\_\_\_  Months or  Years

What is your current position or job title?

\_\_\_\_\_

Please list your most common job activities:

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### Which of the following best describes the hours you usually work?

Regular daytime schedule

Regular evening shift: anytime between 2pm and midnight

Regular night shift: anytime between 9pm and 8am

Forward rotating shift: changes from days to evenings to nights

Backward rotating shift: changes from nights to evenings to days

Other (please explain)

\_\_\_\_\_

\_\_\_\_\_

### How long are your shifts?

8 hours

10 hours

12 hours

Other (please explain)

Variable (please explain) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## WORK CONDITIONS

Do the environmental conditions (e.g., level of heat and humidity) of your work change with the season?  Yes  No

If YES, answer the following questions:

In general during the warm season, how would you describe the air temperature at your work area?  Cold  Cool  Neutral  Slightly warm  Warm  Hot  Very hot

In general during the warm season, how would you describe the humidity at your work area?  Dry  Neutral  Humid

In general during the warm season, how is the air circulation or breeze in your workplace?  Cold air flow/breeze  Cool air flow/breeze  No air flow/breeze  Warm air flow/breeze  Hot air flow/breeze

In general during the warm season, how much do you sweat at work?  I do not sweat  I sweat a little (i.e. armpits, face)  I sweat a moderate amount (i.e. armpits, face, chest, back)  I sweat a lot (i.e. clothes get completely wet)

In general during the warm season, how physically fatigued are you at the end of your work day?  Not tired at all  A little tired  Tired  Extremely tired

In general during the warm season, how thirsty do you get at work?  Not thirsty at all  I get thirsty occasionally  I get thirsty frequently  I am thirsty all the time

In general during the warm season, how hot do you get in your work area?  Not hot at all  A little warm  Warm  Hot  Very hot

In the last 30 days, have you worked at least 5 consecutive days in an area that you felt was warm or hot?  Yes  No

If NO, answer the following questions:

In general during the past month, how would you describe the air temperature at your work area?  Cold  Cool  Neutral  Slightly warm  Warm  Hot  Very hot

In general during the past month, how would you describe the humidity at your work area?  Dry  Neutral  Humid

In general during the past month, how is the air circulation or breeze in your work area?  Cold air flow/breeze  Cool air flow/breeze  No air flow/breeze  Warm air flow/breeze  Hot air flow/breeze

In general during the past month, how much do you sweat at work?  I do not sweat  I sweat a little (i.e. armpits, face)  I sweat a moderate amount (armpits, face, chest, back)  I sweat a lot (clothes get completely wet)

In general over the past month, how physically fatigued are you at the end of your work day?  Not tired at all  A little tired  Tired  Extremely tired

In general over the past month, how thirsty do you get at work?  Not thirsty at all  I get thirsty occasionally  I get thirsty frequently  I am thirsty all the time

In general over the past month, how hot do you get in your work area?  Not hot at all  A little warm  Warm  Hot  Very hot

In the past month, have you worked at least 5 consecutive days in an area that you felt was warm or hot?  Yes  No

## MENTAL HEALTH

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at All	Several Days	More than Half the Days	Nearly Every Day
Feeling down, depressed, or hopeless				
Little interest or pleasure in doing things				