

Appendix G
Health screening questionnaire – environmental chamber

UNIQUE ID:

DEMOGRAPHICS	
Sex	
☐ Male ☐ Female	
Race/Ethnicity	
☐ White	☐ Black
☐ Asian	☐ American Indian or Alaska Native
☐ Native Hawaiian or Other Pacific Islander	☐ Hispanic or Latino
☐ Other Race	
Education	
What is the highest grade or year of school you completed?	
☐ Never attended school or only kindergarten	☐ Grades 1 through 8 (Elementary)
☐ Grades 9 through 11 (Some high school)	☐ Grades 12 or GED (High school graduate)
☐ College 1 year to 3 years (Some college or technical school)	☐ College 4 years or more (College graduate)
Age	
What is your age? _____	
History	
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.	
Allergies	
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 ☐ Yes ☐ No	Any type of cancer? ☐ Yes ☐ No List _____
Heart attack (also called myocardial infarction) ☐ Yes ☐ No	Skin disorder? ☐ Yes ☐ No List _____
Stroke ☐ Yes ☐ No	Diabetes ☐ Yes ☐ No
TIA (transient ischemic attack) ☐ Yes ☐ No	Kidney disease (do not include kidney stones, bladder infections, or incontinence) ☐ Yes ☐ No
Heart failure ☐ Yes ☐ No	Kidney stones ☐ Yes ☐ No
Atrial fibrillation ☐ Yes ☐ No	Bladder infections ☐ Yes ☐ No
Other irregular heart beat that requires medical management (e.g. arrhythmia) ☐ Yes ☐ No	Sleep apnea ☐ Yes ☐ No
Valvular heart disease ☐ Yes ☐ No	High blood pressure ☐ Yes ☐ No
Known heart murmur ☐ Yes ☐ No	High cholesterol ☐ Yes ☐ No
Peripheral artery disease ☐ Yes ☐ No	Hernia ☐ Yes ☐ No
Seizures ☐ Yes ☐ No	Tremors ☐ Yes ☐ No
Asthma ☐ Yes ☐ No	Neurological disorders, including balance problems ☐ Yes ☐ No List _____
COPD, emphysema, or chronic bronchitis ☐ Yes ☐ No	Hyperthyroidism ☐ Yes ☐ No
Other lung disease? ☐ Yes ☐ 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?	☐ Yes	☐ No
Do you have any limitation in your daily activities (including exercise)?	☐ Yes	☐ No
Do you need to use your inhaler for relief of symptoms more than once a week?	☐ Yes	☐ No
Has it been more than six months since you had an asthma attack?	☐ Yes	☐ 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?	☐ Yes	☐ No
Do you have neuropathy (nerve disease) as a result of your diabetes?	☐ Yes	☐ No
Do you have heart disease?	☐ Yes	☐ No
Do you have eye problems as a result of your diabetes?	☐ Yes	☐ No
Do you take insulin?	☐ Yes	☐ 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	☐ Yes	☐ No
Bone fracture within the past six months	☐ Yes	☐ No
Joint injury within the past six months	☐ Yes	☐ No
Tendon injury within the past six months (e.g., tendinopathy, tendonitis)	☐ Yes	☐ No
Ligament injury within the past six months (e.g., sprain)	☐ Yes	☐ No
Back surgery within the past six months	☐ Yes	☐ 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)?	☐ Yes	☐ No
Do you smoke cigarettes? ☐ Yes ☐ No If yes, _____ (number) cigarettes _____ (how often)		
Do you use marijuana?	☐ Yes	☐ No

Do you use other drugs (cocaine, heroin, methamphetamines, etc.)? List _____	☐ Yes	☐ No
Symptoms		
In the past month, have you had any difficulty or pain with swallowing food or liquids?	☐ Yes	☐ No
Do you have any disorders of the esophagus?	☐ Yes	☐ 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)	☐ Yes	☐ No
Do you have problems swallowing?	☐ Yes	☐ No
Do you have a cardiac pacemaker or implantable cardioverter defibrillator?	☐ Yes	☐ No
Have you previously had gastrointestinal surgery?	☐ Yes	☐ No
Do you have chest discomfort or discomfort in the neck, jaw, or arms while exerting yourself or when doing daily activities of living?	☐ Yes	☐ No
Do you have chest discomfort at rest?	☐ Yes	☐ No
Do you have shortness of breath at rest or with mild exertion?	☐ Yes	☐ No
Do you have shortness of breath that starts after sleep onset and is relieved by sitting up or getting out of bed?	☐ Yes	☐ No
Have you had dizziness, fainting or blackouts?	☐ Yes	☐ No
Do you have palpitations (thumping sensation in the chest, or sensation of irregular heartbeat)?	☐ Yes	☐ No
Do you have tachycardia (rapid heartbeat when not exerting yourself)?	☐ Yes	☐ No
Have you had unusual fatigue or shortness of breath with usual activities over the past 3 months?	☐ Yes	☐ No
Do you have crampy pain in the legs that is brought on by exercise and relieved with rest?	☐ Yes	☐ No
Are you frequently thirsty (when you're not working)?	☐ Yes	☐ No
Do you have to urinate frequently (when you're not working)?	☐ Yes	☐ No
Have you lost or gained a lot of weight recently?	☐ Yes	☐ No
Do you have frequent joint pain?	☐ Yes	☐ No
Do you have frequent back pain?	☐ Yes	☐ No
Do you have frequent swelling around your joints?	☐ Yes	☐ No
Other		
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?	☐ Yes	☐ No
Women only: Are you (or could you be) pregnant?	☐ Yes	☐ 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.

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	☐ Yes ☐ No		
Heat exhaustion	☐ Yes ☐ No		
Heat cramps	☐ Yes ☐ No		
Heat-related fainting	☐ Yes ☐ No		
Heat rash	☐ Yes ☐ 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?

- | | |
|--|---|
| ☐ Nausea | ☐ Muscle weakness |
| ☐ Dizziness/ Lightheadedness | ☐ Confusion |
| ☐ Headache | ☐ Excessive fatigue |
| ☐ Irritability | ☐ Excessive thirst that was not easily quenched |
| ☐ Profuse sweating | ☐ Muscle cramps or spasms |
| ☐ Vomiting | ☐ 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:

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:

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				