Rope access technicians

MEDICAL STANDARDS
And Review Criteria for Agency Medical Officers

These Standards Are Applicable to the Following Function:
ROPE ACCESS TECHNICIANS

Under 5 CFR Part 339 Medical Qualifications Determinations, medical standards may be established for functions with duties that are arduous or hazardous in nature. The medical standards described in this section are required because of the hazardous occupational and environmental aspects of the function of rope access technician (please refer to the table on page 3). The medical standards are provided to aid the examining physician, the designated agency medical officer(s), and officials of other involved government agencies (e.g., the Office of Personnel Management, or OPM). They are to be used when determining whether there are medical conditions present that may affect an individual’s ability to safely and efficiently perform the requirements of a rope access technician without undue risk to himself/herself or others. The results of such determinations are to be used by an agency-based team (e.g., safety, personnel, management, peers, and medical) to consider whether waivers or reasonable accommodation may be appropriate when an individual is found to not meet a specified standard. In this way, the standards are intended to help ensure consistency and uniformity in the medical evaluation of all applicants and incumbents.

Each of the medical standards listed in this document are subject to clinical interpretation by an appropriate agency medical officer (AMO) who will incorporate his/her knowledge of the essential job functions and the environmental conditions under which an employee may work. Listed with the standards are examples of medical conditions and/or physical impairments that may be incompatible with safe and efficient performance of duties, or that may be aggravated by performing those duties. Individualized assessments will be made on a case-by-case basis to determine the individual’s ability to meet the performance-related requirements of the rope access technician’s job. Final consideration and medical determination may require additional medical information and/or testing that is not routinely required during either the pre-placement or periodic medical examination process.

Rationale for Medical Evaluation and Review of Rope Access Technicians

The essential functions of rope access technicians in supporting departmental and bureau missions are by nature arduous and hazardous. Also, these functions are performed under variable and unpredictable working conditions. In response, an interagency team has developed these standards in order to help ensure the following:
1. Rope access technicians will be able to perform the full range of essential functions of their jobs under the conditions under which those functions may be performed.

2. Existing/preexisting medical conditions of technicians and applicants will not be aggravated, accelerated, exacerbated, or permanently worsened as a result of carrying out the functions of the job.

3. Demonstration of the strong commitment of the agency to public and employee health and safety, and a strong commitment to maintaining the integrity of mission accomplishment.

Medical Evaluations

Medical evaluations are to be conducted both as a pre-placement exam for all individuals who are to be assigned to roles that involve the duties of rope access technicians, and every three years thereafter. The AMO may determine that, due to health and safety risks, interval changes in health status, and possible medically-related performance concerns, the medical evaluation of individual technicians should be conducted more frequently.

The medical evaluation is to consist of those services summarized on page 4. The evaluation is to be conducted by a qualified health care provider using the DOI Standard Medical History and Examination Form (or an alternative form that provides similar information). The AMO will review the results of all examinations, and provide the final medical recommendation to the agency.

Please note: Consistent with the above discussion, these medical standards do not address physical fitness or job performance. Assessment of these factors would involve separate procedures, and are governed by separate regulations.
# ESSENTIAL FUNCTIONS AND WORK CONDITIONS FOR THE JOB OF ROPE ACCESS TECHNICIAN (RAT)

<table>
<thead>
<tr>
<th>Time/Work Volume</th>
<th>Physical Requirements</th>
<th>Environment</th>
<th>Physical Exposures</th>
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<tbody>
<tr>
<td>May include:</td>
<td></td>
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<tr>
<td>• up to 10 ascents and/or descents per day</td>
<td>• read documents, drawings, and maps</td>
<td>• slippery surfaces</td>
<td>• extreme heat and cold</td>
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<td>• jobs conducted up to 50 days per year</td>
<td>• drive to work sites, 30 minutes to 10 hours (per day)</td>
<td>• uneven surfaces</td>
<td>• noise</td>
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<tr>
<td>• may be expected to work multiple days in succession</td>
<td>• lift and carry gear bags and safety equipment (up to 60 lbs.)</td>
<td>• heights (up to 1000 feet or more on structures or rock slopes)</td>
<td>• wildlife and feces (e.g., birds, rodents, bears, insects)</td>
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<tr>
<td>• may be expected to work longer than 8 hours per day</td>
<td>• put on and use personal protective and rope access equipment</td>
<td>• altitudes (up to 12000 feet)</td>
<td>• gases, particulates, fumes, dust</td>
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<td>• work conducted during all hours; may include working at night and in spaces without natural light</td>
<td>• install anchor systems including slings, 3-step carabiners, rope grabs, pulleys, and lowering devices</td>
<td>• wind</td>
<td>• sleep disruption</td>
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<td>• work will involve being suspended in full-body rope access harness</td>
<td>• ascend ropes using mechanical devices up to 200+ feet in length, while suspended from full-body, rope access harness</td>
<td>• fog</td>
<td>• falling objects, including concrete and rock, tools, equipment</td>
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<td>• all jobs include rescue planning and may require a RAT to perform a variety of high angle rescues where time is of the essence</td>
<td>• descend by rappelling using mechanical devices, up to 600 feet</td>
<td>• high noise levels</td>
<td>• bright sun, high UV light</td>
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<td>• work at extreme heights (structures/rock slopes 10-1000+ feet tall)</td>
<td>• variable lighting conditions</td>
<td>• dehydration</td>
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<td>• be continuously and clearly aware of surroundings</td>
<td>• moving and stationery heavy equipment, machines, vehicles</td>
<td>• cold water (eg. rain, snow, leaking gates)</td>
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<td>• walk, stand, kneel, stoop, and bend for prolonged periods of time</td>
<td>• wildlife (e.g., birds, bats, snakes, bears, insects)</td>
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<td>• use small and large hand and power tools</td>
<td>• long distances from support or medical help</td>
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<td>• reach and use tools above shoulders and head</td>
<td>• isolated, remote sites</td>
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<td></td>
<td>• push and pull objects</td>
<td>• close living/working quarters</td>
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<td>• read gauges, dials, and equipment</td>
<td>• exposed, protruding bolts, braces</td>
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<td>• tie and untie ropes</td>
<td>• sharp metal objects and jagged concrete surfaces</td>
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<td></td>
<td>• work on small or large teams</td>
<td>• steep and/or vertical slopes with loose/unstable rock</td>
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<td>• use writing implements, as well as computer keyboard and personal computer</td>
<td>• confined spaces</td>
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<td>• communicate clearly with public and co-workers, including the use of hand-held radios</td>
<td>• electrical spaces</td>
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<td>• promptly perform high angle rescue in a variety of scenarios which may involve: lifting, dragging, pushing, pulling for up to one hour.</td>
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Medical Examination Services to be Provided for Rope Access Technicians

HISTORIES
- General Medical History
- Occupational History

EXAMINATION ITEMS
- General Appearance and Vital Signs (height, weight, blood pressure, heart rate)
- General Physical Examination, with Special Attention To:
  - Skin
  - Eyes, Ears (including TM mobility), Nose, Mouth, and Throat
  - Neck (including flexibility and rotation)
  - Thyroid
  - Respiratory System
  - Cardiovascular System
  - Back & Musculoskeletal System (including flexibility)
  - Extremities (including strength, range of motion, and joint stability)
  - Peripheral Vascular System
  - Abdomen
  - Gastrointestinal System
  - Genitourinary System
  - Central Nervous System (including cranial nerves II-XII, and cerebellar function)
  - Peripheral Nervous System (including reflexes, sensation, and position sense)
  - Mental Status Evaluation

DIAGNOSTIC TESTS/PROCEDURES
- Audiogram (including 500, 1000, 2000, 3000, 4000, 6000, 8000 Hertz in both ears)
- Visual Acuity, best near and far vision, corrected or uncorrected
- Peripheral Vision
- Depth perception
- Color Discrimination (red, green, and yellow) (baseline exam)
- Pulmonary Function Test-Spirometry (baseline/exit exam)
- Electrocardiogram-Resting (baseline/exit exam)
- TB (Mantoux) skin test (baseline/exit exam)
- Tetanus vaccination (to maintain as current)

LABORATORY
- CBC (hemoglobin, hematocrit, platelets, white blood count)
- Blood chemistry:
  - LDH, AST, ALT, GGT, bilirubin, total cholesterol, LDL, HDL, triglycerides, blood sugar
- Dipstick urinalysis

CLEARANCES
- Medical Clearance for Rope Access Technicians
PSYCHIATRIC STANDARD
The applicant/incumbent must have judgment, mental functioning, and social interaction/behavior that will provide for the safe and efficient conduct of the essential functions of the job. This may be demonstrated by:

- No evidence by physical examination and medical history of psychiatric conditions (including alcohol or substance abuse) likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
(All diagnoses must be consistent with the diagnostic criteria as established by the most current version of the Diagnostic and Statistical Manual of Mental Disorders)
1. AMNESTIC disorders
2. DELIRIUM (depending upon etiology and duration)
3. DEMENTIAS (depending upon etiology and duration)
4. DISSOCIATIVE DISORDERS
5. KLEPTOMANIA
6. PANIC DISORDER and OTHER ANXIETY DISORDERS (including claustrophobia and acrophobia, depending upon etiology, duration and severity of clinical expression)
7. DEPRESSIVE, BIPOLAR, or OTHER MOOD DISORDERS (depending upon clinical course and status of current treatment and response)
8. PYROMANIA
9. SCHIZOPHRENIA (Exceptions may be may in cases of a single episode of schizophrenic reactions associated with an acute illness or toxic exposure capable of causing such reaction.)
10. ANTISOCIAL, PARANOID, or SCHIZOID PERSONALITY DISORDER
11. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

PROSTHETICS, TRANSPLANTS, AND IMPLANTS STANDARD
The presence or history of organ transplantation or use of prosthetics or implants are not of themselves disqualifying. However, the applicant/incumbent must be able to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- No evidence by physical examination and medical history that the transplant, the prosthesis, the implant, or the conditions that led to the need for these treatments are likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

Note: In general, hand or arm amputations (with or without a prosthesis) are incompatible with the functional requirements of the job. For individuals with any transplant, prosthetic, or implanted pump or electrical device, the examinee will have to provide documentation for agency review from his/her surgeon or physician that the...
examinee (and, if applicable, his/her prosthetic or implanted device) is considered to be fully compatible with the specified essential functions of the job.

**IMMUNE SYSTEM/ALLERGIC DISORDERS STANDARD**
The applicant/incumbent must be free of communicable diseases, have a healthy immune system, and be free of significant allergic conditions in order to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A general physical exam of all major body systems that is within the range of normal variation, including:
  - no evidence of current communicable disease that would be expected to interfere with the safe and effective performance of the essential functions of the job; and
  - no evidence of current communicable disease that would be expected to pose a threat to the health of any co-workers or the public; and
  - normal nasopharynx, major sinuses, Eustachian tube, and pulmonary exam
- Normal complete blood count, including white blood count and differential; and
- Current vaccination status for tetanus; and
- No evidence by physical examination and medical history of infectious disease, immune system, or allergy conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3). Individuals with a history of anaphylaxis or major allergy problems may be required to carry a personal anaphylaxis kit (injectable epinephrine).

**CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:**
1. Myasthenia gravis
2. Systemic lupus erythematosus
3. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

**MEDICATION STANDARD**
The need for and use of prescribed or over-the-counter medications are not of themselves disqualifying. However, there must be no evidence by physical examination, laboratory tests, or medical history of any impairment of body function or mental function and attention due to medications if that impairment is likely to present a safety risk or to worsen as a result of carrying out the specified essential functions of the job, under the conditions in which those functions must be carried out (see page 3). Each of the following points should be considered:

1. Medication(s) (type and dosage requirements)
2. Potential drug side effects
3. Drug-drug interactions
4. Adverse drug reactions
5. Drug toxicity or medical complications from long-term use
6. Drug-environmental interactions
7. Drug-food interactions
8. History of patient compliance
EYE / VISION STANDARD
The applicant/incumbent must be able to see well enough to safely and efficiently carry out the essential functions of the job (see page 3). This requires binocular vision, near and far visual acuity, depth perception, peripheral vision, and color vision, which may be demonstrated by:

- Far visual acuity of at least 20/40 in each eye; this may be achieved with corrective lenses (if necessary), including contact lenses or spectacles; and
- Near visual acuity of at least 20/25 (Snellen equivalent) at 16 inches; this may be achieved with corrective lenses (if necessary), including contact lenses or spectacles; and
- Color vision sufficient to distinguish at least red, green, and amber (yellow); and
- Peripheral vision of at least 85° laterally in each eye; and
- Normal depth perception; and
- No ophthalmologic condition that would increase ophthalmic sensitivity to bright light, fumes, or airborne particulates, or susceptibility to sudden incapacitation.

Note: Contact lenses are acceptable for correction of visual acuity, but the user must be able to demonstrate that the corrective device(s) can be worn safely and for extended periods of time without significant maintenance.

CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
1. CHRONIC CONJUNCTIVITIS
2. CORNEAL ULCERS This condition must be treated and cleared by an Ophthalmologist before a medical clearance can be granted.
3. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

HEAD, NOSE, MOUTH, THROAT AND NECK STANDARD
The applicant/incumbent must have structures and functions of the head, nose, mouth, throat, and neck that are sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A physical exam of the head, nose, mouth, throat, and neck that is within the range of normal variation, including:
  - normal flexion, extension, and rotation of the neck; and
  - open nasal and oral airways; and
  - unobstructed Eustachian tubes; and
  - no structural abnormalities that would prevent the normal use of a hard hat and protective eyewear; and
- Normal conversational speech; and
- No evidence by physical examination and medical history of head, nose, mouth, throat, or neck conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).
CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
1. MUTISM/APHONIA
2. NASAL POLYPS THAT SIGNIFICANTLY OBSTRUCT BREATHING
3. RESTRICTED RANGE OF MOTION IN THE NECK
4. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

EARM / HEARING STANDARD
The applicant/incumbent must be able to hear well enough to safely and efficiently carry out the essential functions of the job. This requires binaural hearing (to localize sounds) and auditory acuity, which may be demonstrated by:

- A current pure tone, air conduction audiogram, using equipment and a test setting which meet the standards of the American National Standards Institute (see 29 CFR 1910.95);
- Documentation of hearing thresholds of no greater than 40 dB at 500, 1000, 2000, and 3000 Hz in each ear; and
- No evidence by physical examination and medical history of ear conditions (external, middle, or internal) likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

Note: The use of a hearing aid(s) to meet this standard is permitted.

CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
1. MENIERE’S DISEASE
2. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

DERMATOLOGY STANDARD
The applicant/incumbent must have skin that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A physical exam of the skin that is within the range of normal variation; and
- No evidence by physical examination and medical history of dermatologic conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
1. ALBINISM

Medical Standards - Rope access technicians
2. **XERODERMA PIGMENTOSUM**
3. **CHRONIC DERMATITIS** (if it affects ability to use PPE and fall prevention and fall arrest gear)
4. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

**VASCULAR SYSTEM STANDARD**
The applicant/incumbent must have a vascular system that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:
- A physical exam of the vasculature of the upper and lower extremities that is within the range of normal variation, including:
  - no evidence of phlebitis or thrombosis; and
  - no evidence of venous stasis; and
  - no evidence of arterial insufficiency; and
- No evidence by physical examination and medical history of peripheral vasculature conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

**CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:**
1. **CHRONIC VENOUS INSUFFICIENCY**
2. **DEEP VEIN THROMBOSIS**
3. **CHRONIC THROMBOPHLEBITIS**
4. **INTERMITTENT CLAUDICATION**
5. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

**CARDIAC STANDARD**
The applicant/incumbent must have a cardiovascular system that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:
- A physical exam of the cardiovascular system that is within the range of normal variation, including:
  - blood pressure of less than or equal to 140 mmHg systolic and 90 mmHg diastolic; and
  - a normal baseline electrocardiogram (minor, asymptomatic arrhythmias may be acceptable); and
  - no pitting edema in the lower extremities, and
  - normal cardiac exam.
- No evidence by physical examination and medical history of cardiovascular conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

**CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE,**
BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:

1. **PACEMAKERS** or **PROSTHETIC VALVES** may be disqualifying. Documentation from the individual’s cardiologist, stating that the individual is stable and can safely carry out the specified essential functions of the job, under the specified work conditions, will be necessary before a clearance can be granted.

2. **CORONARY ARTERY DISEASE**

3. **HYPERTENSION** that cannot be controlled to a level of 160/90 or less, or requires the use of any medication that affects the ability of the individual to safely carry out the essential functions of the job, may be disqualifying.

4. History of **MYOCARDIAL INFARCTION**

5. **VALVULAR HEART DISEASE** such as mitral valve stenosis, symptomatic mitral valve regurgitation, aortic stenosis etc.

6. **DYSRHYTHMIAS:** Documentation from the individual’s cardiologist, stating that the individual is stable and can safely carry out the specified essential functions of the job, under the specified work conditions and without aggravating the condition, will be necessary before a clearance can be considered.

7. **ANGINA PECTORIS** or chest pain of unknown etiology.

8. **CONGESTIVE HEART FAILURE**

9. **CARDIOMYOPATHY**

10. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

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**CHEST AND RESPIRATORY SYSTEM STANDARD**

The applicant/incumbent must have a respiratory system that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A physical exam of the respiratory system that is within the range of normal variation; and
- A pulmonary function test (baseline exam) showing:
  - forced vital capacity (FVC) of at least 70% of the predicted value; and
  - forced expiratory volume at 1 second (FEV1) of at least 70% of the predicted value; and
  - the ratio FEV1/FVC of at least 70% of the predicted value; and
- No evidence by physical examination and medical history of respiratory conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

**CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:**

1. **SIGNIFICANT OBSTRUCTIVE** or **RESTRICTIVE PULMONARY DISEASE.**

2. **ASTHMA**

3. **ACTIVE PULMONARY TUBERCULOSIS (TB)**

4. **HISTORY OF CHRONIC BRONCHITIS ASSOCIATED WITH DECREASED PULMONARY FUNCTION**

5. **SPONTANEOUS PNEUMOTHORAX** (if recurrent)
6. **PNEUMONECTOMY** (if associated with impaired pulmonary function)
7. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

**ENDOCRINE AND METABOLIC SYSTEM STANDARD**

Any excess or deficiency in hormonal production can produce metabolic disturbances affecting weight, stress adaptation, energy production, and a variety of symptoms or pathology such as elevated blood pressure, weakness, fatigue and collapse. The applicant/incumbent must have endocrine and metabolic functions that are sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A physical exam of the skin, thyroid, and eyes that is within the range of normal variation; and
- Normal fasting blood sugar level; and
- No evidence by physical examination (including laboratory testing) and history of endocrine/metabolic conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

**CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:**

1. **ADRENAL DYSFUNCTION** (e.g., Addison’s Disease or Cushing’s Syndrome).
2. **THYROID DISEASE** (uncontrolled or associated with current complications).
3. **INSULIN DEPENDENT DIABETES MELLITUS**
4. **HYPERGLYCEMIA** without a history of diabetes will require additional tests, including but not limited to a glycohemoglobin (or hemoglobin A1C) and fasting glucose before a final medical determination is made.
5. **DIABETES INSIPIDUS**.
6. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

**THE CONDITION OF PREGNANCY**

If an applicant or incumbent is a woman, and she raises the issue of pregnancy as the basis for a request for a special benefit, a change in duty status, or job restrictions, then justification and clarifying information for that request must be provided by the applicant’s obstetrician or primary care physician, along with the estimated time period the special conditions are expected to apply.

**HEMATOPOIETIC SYSTEM STANDARD**

The applicant/incumbent must have a hematopoietic (blood and blood-producing) system that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A physical exam of the skin that is within the range of normal variation; and
A complete blood count (including hemoglobin, hematocrit, platelets, and white blood count, with differential) that is within the normal range; and

No evidence by physical examination (including laboratory testing) and medical history of hematopoietic conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

**CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:**

1. **ANEMIA**
2. **THROMBOCYTOPENIA or CLOTTING DISORDER**
3. **HEMOPHILIA**
4. **CHRONIC LYMPHANGITIS**
5. **SICKLE CELL ANEMIA**
6. **SPENOMEGALY**
7. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

**MUSCULOSKELETAL SYSTEM STANDARD**

The applicant/incumbent must have a musculoskeletal system that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A physical exam of the upper and lower extremities, neck, and back that is within the range of normal variation for strength (including grip strength), flexibility, range of motion, and joint stability; and
- No evidence by physical examination and medical history of musculoskeletal conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

**CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:**

1. **ARTHRITIS** (any etiology) if there is a limitation of major joint motion, and/or pain that prevents the full range of required activities.
2. **AMPUTATIONS** (loss of digits will be evaluated on a case-by-case basis)
3. **ANKYLOSING SPONDYLITIS**.
4. **LUMBOSACRAL INSTABILITY**: pain or limitation of flexibility and/or strength adversely affecting the ability to stand, bend, stoop, carry heavy objects or sit for long periods of time.
5. **SCIATICA OR OTHER NEUROPATHIES**
6. **CHRONIC LOW BACK PAIN** (by medical history) without demonstrable pathology must be considered on a case-by-case basis. Each case will be reviewed in context of the original history or etiology, the response to therapeutic regimes, frequency of recurrence, exacerbating factors, and lengths of disability associated with the recurrences combined with the current clinical presentation.
7. A history of a CHRONIC SPRAIN OR STRAIN OF THE NECK limiting mobility or causing recurring cephalgia (headaches)
8. Any evidence of a CERVICAL NEUROPATHY, including numbness, tingling or loss of motor strength in the upper extremities
9. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

CENTRAL AND PERIPHERAL NERVOUS SYSTEM STANDARD, AND VESTIBULAR SYSTEM STANDARD
The applicant/incumbent must have a nervous system that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:

- A physical exam of the cranial and peripheral nerves and the vestibular and cerebellar system that is within the range of normal variation, including:
  - intact cranial nerves, I-XII; and
  - normal proprioception of the major joints; and
  - normal sense of touch in the hands and feet; and
  - normal reflexes of the upper and lower extremities; and
  - normal balance (e.g., heel-toe walk; Romberg; balance on one foot); and
- Normal basic mental status evaluation (e.g., person, place, time, current events); and
- No evidence by physical examination and medical history of nervous, cerebellar, or vestibular system conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
1. ATAXIA from any etiology
2. VESTIBULAR NEURONITIS
3. VERTIGO
4. PHYSIOLOGIC VERTIGO (MOTION SICKNESS)
5. CEREBROVASCULAR ACCIDENT or TRANSIENT ISCHEMIC ATTACKS.
6. EPILEPSY/SEIZURES
7. NARCOLEPSY
8. SENSORY DYSFUNCTION (smell, touch, proprioception)
9. MIGRAINE
10. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

GASTROINTESTINAL SYSTEM STANDARD
The applicant/incumbent must have a gastrointestinal tract that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:
• A physical exam of the abdomen that is within the range of normal variation; and
• Normal liver function tests (baseline exam); and
• No evidence by physical examination (including laboratory testing) and medical history of gastrointestinal conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
1. ACUTE AND CHRONIC ACTIVE HEPATITIS.
2. CROHN’S DISEASE / ULCERATIVE COLITIS / REGIONAL ENTERITIS / SPRUE / IRRITABLE BOWEL SYNDROME (these conditions, if controlled with surgical, dietary, and/or medical treatments, may be compatible with the job, and will be reviewed on a case-by-case basis.)
3. COLOSTOMIES, unless the precipitating condition has stabilized and the applicant/incumbent demonstrates successful management of the colostomy, considering the requirements of the function and the work conditions.
4. ILEITIS (chronic or recurring).
5. CHOLECYSTITIS (chronic or recurring).
6. DIVERTICULITIS (symptomatic).
7. CIRRHOSIS OF THE LIVER (depending upon the degree of severity and the etiology).
8. INTESTINAL OBSTRUCTION from any cause.
9. ESOPHAGEAL VARICES
10. PANCREATITIS
11. UNTREATED (OR UNSUCCESSFULLY TREATED) INGUINAL, INCISIONAL OR VENTRAL HERNIA that is associated with symptoms
12. ACTIVE GASTRIC OR DUODENAL ULCER
13. GASTRIC OR BOWEL RESECTION, if there is any evidence (historical or physical) of post-treatment (current) pain, hemorrhage, fainting episodes or dietary restrictions that could interfere with the performance of the job.
14. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis.

GENITOURINARY SYSTEM STANDARD
The applicant/incumbent must have a genitourinary system that is sufficient for the individual to safely and efficiently carry out the essential functions of the job. This may be demonstrated by:
• A normal clean catch urinalysis (baseline exam); and
• No evidence by physical examination and medical history of genitourinary conditions likely to present a safety risk or to worsen as a result of carrying out the essential functions of the job (see page 3).

CONDITIONS WHICH MAY RESULT IN DISQUALIFICATION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING EXAMPLES:
1. POLYCYSTIC KIDNEY DISEASE
2. ACUTE or CHRONIC RENAL FAILURE
3. NEPHROTIC SYNDROME
4. SYMPTOMATIC URINARY CALCULI
5. NEUROGENIC BLADDER
6. UNCORRECTED OBSTRUCTIVE UROPATHIES
7. RENAL TOXICITY FROM ANY CAUSE
8. Any other condition not otherwise listed that may adversely affect safe and efficient job performance will be evaluated on a case-by-case basis