

# Development and Validation of Task-specific Fitness Tests and Standards

## Phase 1:

*Understanding the tasks at hand*

**In Process**

**Establishing a Project Management Team** to help guide and validate the research process (subject matter expert, chain of command, exercise specialists, Personnel Selection officer, legal advisors)

**Literature reviews & job familiarization** on related tasks or jobs

**Job/physical demand analysis:** site visits, interviews, job shadowing, review of operational manuals and video, physical measurements (weight of equipment, height of lifts, distances traveled) and questionnaires to incumbents.

**Identification of most physically demanding, essential and most commonly performed tasks**



## Phase 2:

*Measuring and validating the information*

**Validation of all tasks (those to be included or excluded)** with a panel of Subject Matter Experts

**Identification of tasks** to be included in a work sample for physiological analysis

**Physiological characterization of most physically demanding tasks** (by measuring % HR<sub>max</sub>, % VO<sub>2max</sub>, loads, speeds/paces, environmental stressors...)



## Phase 3:

*Development of test and setting minimal standards*

**Development of a preliminary test battery** with significant contribution from the incumbents and subject matter experts

**Validation of test items** through consultation with a representative subset of personnel

**Validation of physiological measures** (e.g., compare VO<sub>2</sub> and heart rate during actual tasks vs during task simulation battery)

**Finalize test battery** with continued involvement from the incumbents

**Establish minimal performance standards**

**Establish test-retest reliability** (if the performance on the test is the same from one day to the next)

**Assess adverse impact** of minimal performance standard. Measure the effects on subgroups based on age, gender, disabilities, etc.