Fitness assessment instruction manual

FITNESS ASSESSMENT INSTRUCTIONAL MANUAL

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FOREWORD

With the EI's *A recommended fitness standard for the oil and gas industry* (2011) fitness standards were developed which establish the physical demands associated with the performance, to a minimum acceptable level, of the essential tasks of the primary functions of the oil industry workforce in the UK.

This instructional manual was produced by the University of Portsmouth for the EI's Health Technical Committee to assist with the administration of these fitness standards including the use of the advised equipment and to provide practical guidance to occupational physicians working in the oil and gas industry.

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The EI would also like to acknowledge the contributions of members of the Health Technical Committee in steering this project to completion. Furthermore, the EI extends its gratitude to the companies and individuals that took part in this study without which this project would not have been possible.

1 INTRODUCTION

This instructional manual is provided to assist with the administration of the recommended oil and gas industry (OGI) fitness assessment[1], including the use of the advised equipment by the University of Portsmouth. The manual has been written to provide the OGI assessors with the knowledge and understanding necessary to conduct a fitness assessment of potential and existing OGI employees. The manual should be studied before administering any tests. It should be kept with the equipment, as it may need to be referred to during an assessment.

The tests are designed to ensure that OGI employees have, and maintain, a baseline level of fitness that is sufficient to safely perform and withstand the physically demanding, essential tasks associated with working in the OGI to at least a minimum acceptable standard.

During development of this fitness standard, task analyses determined that the most generic and essential physically demanding tasks undertaken across the industry were:

– opening and closing valves;
– climbing ladders and stairs;
– lifting and manual handling (including stretcher carrying and the use of trolleys and trailers etc);
– pulling hoses and cables (specific to the emergency response team (ERT));
– emergency evacuation, and
– survival training.

Following the establishment of the physical demands associated with the performance of the essential tasks using the method of best practice (MOBP) to the minimum acceptable standard, the fitness standard (Table 1) was devised.

It is expected that an individual's job will be assessed and, depending on the physical characteristics of that job, the relevant fitness tests will be selected and administered. Table 1 includes the three components required for the assessment of each essential task and the scores required to achieve a pass, borderline or fail category. The three components are an aerobic test (using the Tecumseh step test), strength assessments and direct task simulations. To use Table 1 the tester must first determine which essential tasks are undertaken by the employee (as a guide Table 2 presents the essential tasks associated with a selection of jobs in the OGI); from this the fitness tests can be chosen. An example is given after Table 1.

The standard utilises two basic types of test:

1. Predictive selection tests (PST)
   These have 'pass/borderline/fail' categories and use basic fitness equipment to predict the performance required to complete an essential task.
2. Direct task simulation (DTS)
   These have 'pass/fail' categories and use standard OGI equipment to simulate the performance required to complete an essential task.

Table 1 contains the following tests:

GE30 Grip endurance for 30 seconds (separate tests to be performed on the left and right hand)
SAS Static arm strength
RHMGS Right hand maximum grip strength
GE10 Grip endurance for 10 seconds (separate tests to be performed on the left and right hand)

1 *A recommended fitness standard* (2011). Published by the Energy Institute.