



AngloGold Ashanti's approach to fitness for work adopted as industry standard

An individual's physical fitness to perform his or her occupation is fundamental to the maintenance of good health and safety, particularly in an industry – such as gold mining – that is heavily dependent upon manual labour performed in a physically demanding environment. Much of the work performed by production workers underground on South African deep-level mines is intensely physical and carried out in confined spaces with temperatures, though moderated by complex ventilation systems, of approximately 28°C.

In 2001, AngloGold Ashanti, in a joint venture with Anglo Platinum, developed a comprehensive battery of tests – known as the Functional Work Capacity (FWC) programme – to measure occupation-specific physical and functional competence.

The FWC, together with a comprehensive vocational rehabilitation programme, constitutes the Rehabilitation and Functional Assessment (RFA) programme used in AngloGold Ashanti's operations, both to assess an individual's capacity for a specific occupation and to provide rehabilitation, and, if necessary, training for an alternative occupation after injury. The RFA is not used in isolation, but forms part of a series of assessments (initial and periodic medical examinations, physical and heat tolerance screening) directly linked to the company's medical surveillance programme.

FWC is defined as an objective assessment to determine an employee's capacity to undertake specific physical tasks, safely and productively, without undue fatigue or adverse consequences, over a normal working shift. Input from the various disciplines involved in the mining process, as well as from the medical and occupational hygiene departments, provided input into FWC development.

FWC comprises 19 elements covering such aspects as mobility, dexterity and level of effort in both restricted and unrestricted environments. Only those elements relevant to a specific occupation profile are used: each element has a specific physiological workload and has to be completed in a reasonable time.

The intellectual property contained within the FWC concept is jointly owned by AngloGold Ashanti and Anglo Platinum. Its use has been extended to Gold Fields (Beatrix, Driefontein and Kloof mines), Assmang (Beeshoek and Black Rock Mines), De Beers (Jwaneng Mine) and Sasol Secunda. To date, 12 RFA centres (providing both assessment and rehabilitation) have been established.

A centralised database is being developed, under the guidance of RFA co-ordinator Tia-Mari Hofmann, and will be used to plot trends and correlate data between different companies. The database currently contains some 60,000 records. Aspects captured include company demographics as well as employee lifestyle and work experience factors. "The database will assist us in quality control and refining test standards, as well as measuring the impact of certain risk factors on physical work capacity," says Hofmann.

Within AngloGold Ashanti, the test forms part of rehabilitation and assessment for return to work after injury. About 20 employees per day go through the process on average. At a number of other companies, Anglo Platinum and Gold Fields for example, the test has been extended to form part of the initial medical examination.



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It is important to note, Hofmann explains, that test results are never used alone to indicate the suitability of an individual for a specific occupation. Rather, the results from FWC are used by the occupational medical practitioner, in conjunction with a suite of other tests, such as lung function, weight, vision, hearing and heat tolerance testing, to make a decision on fitness.

FWC testing can be applied on three levels, each of which has a specific purpose:

- **Level 1** is intended to provide a rating of full-shift capacity of healthy, fit individuals. All jobs of a physical nature have been analysed according to the functional requirements of the tasks involved;
- **Level 2** is used for assessment of new employees and for rehabilitation after illness and injury. Insofar as rehabilitation is concerned, only selected elements are used to monitor progress; and
- **Level 3** assessments are solely directed at rehabilitation. The emphasis falls on functionality and not endurance. The specific elements of the assessment will depend on the nature of the injury or illness.

RFA provides an objective, specific instrument to match the capacity of an employee to the physical demands of a particular occupation, thereby preventing premature injury or fatigue. The system also provides objective criteria for the assessment of fitness before employees return to work after injury or illness. Where fitness standards for the original occupation cannot be achieved, RFA provides a means of identifying alternative employment, thereby ensuring – from the company's perspective – retention of skills and – from the employee's perspective – the retention of a rewarding career. Through an assessment of the necessary workplace adaptation and design, RFA can also be extended to the employment of people with disabilities.

