

Training for safety, with Cat Simulators

Barloworld Equipment's Operator Training Academy in Isando, Johannesburg, continues to invest in the latest Version II Cat simulators as the demand for training from industry increases.

The Operator Academy trains around 700 candidates annually from across all industry sectors for accredited courses in terms of the Construction Education and Training Authority (CETA) and the Mine Qualifications Framework (MQF). During 2013, the number of Academy instructors increased from 8 to 12 to meet rising demand. Academy head, Willie Haasbroek, says there has been strong take up particularly from the mining sector. He adds that the Version II Cat simulators are also available for rent or purchase.

At the academy there are two proficiency grades, namely Level I: Certified and Level II: Expert, which are determined both in terms of theoretical competency and the number of additional hours completed in-field on the machine during training.

"Our courses, which run throughout the year, place equal emphasis on theory and practice, and experiential learning in both instances is being greatly enhanced by the use of Cat simulators. These now form a core component of all operator training programmes at the Academy," Haasbroek explains.

Caterpillar is progressively expanding and updating its simulator range across various machine classes; one of the latest additions is the rope shovel trainer. This unit joins simulator stations for major categories that include hydraulic excavators, graders (M-Series only), wheel loaders, off-highway trucks, dozers, and scrapers.

"From experience we find that the best way to enhance general competency is to start trainees off on the Cat e-Learning CD series or through our theoretical courses, followed by time on the simulators, before they operate an actual machine in the training area," says Haasbroek.

Cat e-Learning CD's first teach candidates about the controls, safety and operating standards. There are test questions after each section with an overall score generated. Achieving the minimum pass mark is a prerequisite for simulator training, where candidates again have to pass a battery of tests that emphasize safe

operation at every stage. Before the machine will start in the simulator computer programme, for example, the candidate first has to run through a checklist, which includes a machine walk around inspection.

The full range of Cat e-Learning CD's can be ordered from the Academy. New CDs now available include M-Series Graders, Articulated Trucks, and Backhoe Loaders.

Going forward, the Academy is also investigating the possibility of investing in full motion simulator technology. Similar to an aircraft simulator, 'full motion' provides a live experience with physical feedback.

"You can upload actual mine terrain maps and haul road layouts, and simulate parameters such as rain, or a cab fire," Haasbroek continues.

Full motion simulators are intended as an advanced training aid for skilled operators, typically with at least five years experience under their belt. Adds Haasbroek: "Our end goal is to qualify professional operators certified to the highest Caterpillar and industry standards."



Cat Truck & Rope Shovel