

upfront

TRAINING by Dinah Zeldin

Total rehaul

New training program improves safety and efficiency



Courtesy of Vista Training Inc.

Pre-operation inspection is part of the TruckLogic training curriculum at Suncor.

In the span of one month at Suncor Energy's Millenium mine in 2011, haul truck operators from two shifts saw their productivity jump by 3.5 per cent. On top of that, the safety incident rate for new drivers, of which there were 65, plummeted 50 per cent and experienced operators recognized an improvement in the performance of new hires. Those numbers were a surprise to some, who had been skeptical a new haul truck operator training program called TruckLogic would not disrupt operations and actually make matters worse. But the proof is in the pudding and the success of the two-shift pilot project, which began in April 2010, means TruckLogic is now used at both the Millenium and Steep-bank mines, and is making its way to more of Suncor's operations.

Made for real people

The TruckLogic program is designed by Vista Training Inc. with adult learning principles in mind. "Research found adults need to tie learning in a classroom to an experience they can relate to in real life," explains Bruce Rabe, CEO of Vista. By pairing conceptual in-class learning with on-the-job activities, TruckLogic provides that experience-based learning. But the success of the program also relies heavily on the close collaboration between Vista, Suncor's classroom trainers and mentors in the field.

"We had been doing computer-based training programs since the early 2000s," says Rabe. "According to customer feedback on those, students were able to answer 'check your knowledge' questions in the computer lab, but the next day, when they were out in the field, they couldn't apply the training. We created TruckLogic to address that disconnect between the computer lab and the field."

Before TruckLogic was in the picture, Suncor's haul truck operators were trained with a six-day, compre-

hensive computer-based training program, followed by time spent riding along with experienced operators on overburden hauls. "They did not really get to operate the truck until they were out in the field with their mentor," explains Richard Mieklejohn, senior trainer/operator at Suncor. "Now we do it in segments."

With the old system, new operators continued driving on overburden runs until they gained experience and were only allowed to drive on ore runs once they had plenty of operating hours under their belts. But the TruckLogic program requires trainees to practise all aspects of their roles within five days. That means trainees drive on ore runs where, on some sections of the haul road, there is constant heavy truck traffic. This was a concern for many trainers, who feared fresh operators on the

ore run could impact productivity and cause incidents. But Vista has found ways of mitigating that risk. “First they learn [in the classroom] how to drive the haul truck up and down the road, and then we will take them out with their mentors and all they can do is drive up and down the haul roads,” says Mieklejohn. “When they get to the shovel pits and the dumps, they switch operators.”

“Switching operators could potentially cause safety or production issues, but within a month, I saw we had more production and better quality operators because of the quality time mentors were spending with each person,” Mieklejohn remembers.

The new five-day program is divided into three modules: haul truck operation, dumping and loading. Each module consists of in-class instruction, simulator activities and on-the-job training with a mentor.

Holistic, customized training

While Vista’s team focused on refining the curriculum to meet adult learning needs and on guiding Suncor’s trainers through implementation, Suncor’s team acted as subject matter experts, providing details that needed to be incorporated into the program. “We spent six months to one year working with our trainers to collect input on what the program should cover,” says Kirk McClain, manager of fixed plants operations training, who led the program’s implementation at Suncor. “Trainers brought the operational experience needed to tweak the program to make sure it was comprehensive. They helped incorporate simple things, like how to back in to a shovel, into the program.”

Vista provides a package of material, including a two-day training program for trainers, delivered on- or off-site, and an information package for mentors, covering all aspects of procedures and policies. Trainees get a list of questions to ask the mentors as they ride along. And, according to Rabe, Vista has designed the program to ensure that critical information gets passed on.

“There is a lot of tacit knowledge an experienced operator acting as a mentor has,” explains Chuck Frey, marketing manager at Vista. “If you are just putting someone on the truck with the mentor you are counting on the fact that knowledge transfer is going to happen. We structure the question sheets to encourage narrative coaching, where the experienced operator is guided to really explain what they are doing and why, so the trainee really gets the benefit of that knowledge.”

Suncor awarded the team behind TruckLogic’s implementation the 2011 Suncor President’s Operational Excellence Award for the way it benefitted trainees, trainers and mentors. “TruckLogic’s implementation improved processes for our trainees so they learned better,” explains McClain. “The program provided additional flexibility to dispatch our operators across our site and helped mentors feel more confident about their role in the process. Now we have more people that are willing to help and mentor.”

The curriculum “provides the big picture, so the truck operators see how they fit into the overall operation and how



A trainee participates in a computer-based training module.

Photo courtesy of VISTA Training Inc.

they contribute to the bottom line of the mine,” according to Rabe. Trainees work with more confidence because they understand what the people around them are trying to accomplish. In turn, supervisors and trainees recognize that the trainees’ performance is improved. The whole operating team recognizes the opportunity to improve production and is willing to support that, so the program becomes part of the operation’s culture.”

Logical next steps

McClain is heading an initiative to export the TruckLogic training template to other equipment operator training programs. He points out that Suncor has applied TruckLogic’s incremental learning approach to in-house shovel training. “We used the basic concept of doing it in small steps and giving operators time to practise, and the preliminary results are fantastic. The 15 shovel trainees that came out of the training are running as well as or better than experienced operators.”

Suncor and Vista are now collaborating on training programs for dozers and utilities operations. McClain says the dozer training program will be piloted next spring, while the utilities program, which will cover all activities related to managing electrical cable supply to electric shovels in the mine, will be in development until next fall.

Simultaneously, Vista is customizing the TruckLogic program to meet other customers’ needs. Rabe says the company is working with two new clients, one in British Columbia and another in the United States. “In each of those cases the customer has a different loading practice and is mining a different commodity, so we are working with them to customize the loading module of the course,” he explains. Pricing depends on the level of customization required, but Rabe estimates cost at \$1,000 to \$2,000 per trainee.

For Vista, TruckLogic is just the first step. The company plans to create a suite of programs for all heavy equipment used at mine sites. “Our programs are applicable at any point in the mine life cycle,” Rabe says, “and will be adaptable to any commodity.” **CIM**