

## Hazardous Coal Stockpile Operations Made Safer By Immersive Technologies

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In recent years the demand for dozer operators working on coal stockpiles has grown dramatically, increasing the need for specialized training in what is considered one of the most hazardous environments for dozer operators. Committed to making mine sites safer, Immersive Technologies has developed technology to specifically address operator safety in coal stockpiling. This technology is embedded in an upgrade to Immersive Technologies' leading range of Advanced Equipment Simulators.

Coal stockpiling operations pose a high risk to operator safety and can lead to injuries or death if correct procedures are not followed; incidents can also halt operations and significantly impact repair and maintenance costs. The simulation training based technology developed by Immersive Technologies focuses on reducing the operational risk of dozer stockpile operations by:

- Creating enhanced operator awareness of surroundings
- Training operators to minimise the risk of falling into a void
- Assessing competency of dozer operators to comply with and follow safe operating procedures

"We are continually developing new technologies that give our customers the highest return on their investment. These new features are developed for the latest version of SimControl, the software at the heart of the PRO3 Advanced Equipment Simulator and ensure our customers receive the maximum benefits from their simulation training," said Peter Salfinger, CEO of Immersive Technologies.

Rio Tinto's Hail Creek Mine and Glencore Xstrata were instrumental in the development of this technology. Both companies are major producers of coal and work with Immersive Technologies to ensure simulator technology is effective and accurate for onsite operations.

Glencore Xstrata has recognized value in being able to take operators out of a potentially dangerous training environment with little ability for trainer interaction; into a realistic hands-on approach where operator errors can occur without sacrificing safety. This site, along with many others, only has one stockpile so any type of training halts production; simulator technology has proved to be advantageous in keeping operations running at full capacity while training operators to be safer and more productive.



*New features for the latest version of SimControl, the software at the heart of the PRO3 Advanced Equipment Simulator, address the risks of coal stockpile operations.*

Bluestone Global, an Australian based company specializing in labour hire, mining services, professional placement and international recruitment, utilizes Immersive Technologies' Advanced Equipment Simulators for their training efforts. Bluestone was a major contributor to the development ensuring the technology delivers the most accurate and effective training.

"The dozer stockpile program will easily quantify itself in monetary returns as it is able to advance operators into a high proficiency level through a method that does not interfere with production. Stringent conditions and protocols make other methods to train complex due to the inability to be close while the operator is under instruction in relation to entering and operating on a coal stockpile. The only alternative is to deliver training from a distance or utilize another dozer which is both time consuming and costly," says Darren Culley, Bluestone Global Executive Group Manager WHSQ.

Included in this simulation training based technology is the ability to assess learning decay, bad habits and behaviors that lead to unsafe operations at coal stockpiling sites such as operating too close to objects around stockpiles, incorrect methods of approaching and working around and near coal valves /feeders and operating on unstable ground. Other training tasks include cleaning the hanging wall, pushing out a stockpile bench, reclaiming a stockpile bench and emergency preparedness training. Glencore Xstrata identified results while conducting emergency preparedness training from staff at different competency levels of stockpile dozing. Understanding the proper process and correct sequence in the case of an emergency is essential as incorrect responses put personal safety and the assets of the business at high risk. Their emergency preparedness training included how to accurately respond to:

- Engine Fires
- Hydraulic Fires
- Low Engine Oil Pressures
- High Engine Coolant Temperatures

In addition to new employee training the simulator technology can be used to identify experienced operators in need of refresher training or proficiency training. For those mining operations that need to hit the ground running with this new technology, a training service is also now available from Immersive Technologies to facilitate rapid implementation into existing training programs. This service includes on-site support from an Immersive Technologies Training Consultant to quickly integrate the new features into your existing curriculum.

This is an effective tool for mine management to proactively assess their risk and recognize value from properly trained operators through the reduction of dozer incidents on coal stockpiles, improvements in productivity measures and increase machine availability due to increased operator knowledge.

"Solving challenges in the mining industry is something that gives us great pride. The result of this development and many others like it completed by Immersive Technologies, is safer and more productive equipment operators in mines around the world," said Peter Salfinger, CEO of Immersive Technologies.

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### About Immersive Technologies

Immersive Technologies is the world's largest, proven and tested supplier of surface and underground Advanced Equipment Simulators to the global mining industry. The company has achieved this unique position by focusing on its mission to make every mining and earthmoving equipment operator in the world safer and their employer more profitable through its simulation technologies. Immersive Technologies' Advanced Equipment Simulators are helping hundreds of mining companies around the world to increase their equipment operators' safety and site profitability through effective simulation training.

Immersive Technologies provides its customers with the most effective Advanced Equipment Simulators available. This is made possible through the formal exclusive licensing and technical information alliances Immersive has established with the leading Original Equipment Manufacturers (OEM), including: Caterpillar, Hitachi, Komatsu, Liebherr and P&H Mining Equipment. These unique alliances provide Immersive Technologies with exclusive access to the OEM's proprietary and confidential machine technical information that is required to correctly simulate the OEM's machines and is not available through other public or dealer channels.

With advanced simulators modules deployed in 33 countries, Immersive Technologies is dedicated to provide outstanding service. To deliver on this commitment the company has customer sales and support offices located close to its customers in Perth and Brisbane Australia, Salt Lake City USA, Calgary, Ottawa and Vancouver Canada, Monterrey Mexico, Lima Peru, Santiago Chile, Bochum Germany, Johannesburg South Africa, Jakarta Indonesia and Kolkata India.

Immersive has the global mining experience, innovative technology, product range, OEM relationships, proven support commitment and industry vision to partner with you to ensure your simulator training solution delivers the significant results you expect.

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