

# Case study: New Zealand Steel’s award-winning 3D safety training

## New Zealand Steel’s Safety Programme

Already an acknowledged leader in health and safety practices, New Zealand Steel won the Best Technology Initiative at the 2009 NZ Workplace Health and Safety Awards for their 3D training programme which shows truck drivers how to safely secure loads of steel and navigate the Glenbrook steel mill.

The project was implemented by 3D specialists Revisia Ltd, who were tasked with developing NZ Steel’s visually engaging training media and a flexible content delivery system. Revisia applied the latest Right Hemisphere visualisation technology, supplied by strategic partner Nextspace Ltd.

### Using 3D to restrain heavy loads

Loading NZ Steel’s vast range of steel products “safely” on the back of a truck is one thing, but ensuring each and every truck driver knows how to secure an 18 tonne steel coil for safe transport is another.

Applying load restraint requirements can be challenging at times, especially considering that trucks are rarely loaded the same way twice!

To address these challenges, the Load Restraint Committee at NZ Steel engaged Revisia to develop an eLearning training series. Revisia used their understanding of the plant processes and 3D expertise to transform traditional paper-based guidelines into animated 3D learning modules.



The clear, concise and portable training gave all the transport companies coming onto the steel mill site the flexibility to train their drivers in circumstances that suited them and with very little cost outlay. Unlike a paper-based system, the strong visual element gave exact and succinct information that is easily absorbed by those participating in the training.

The highly visual nature of the training content provides a more clear and intuitive approach for truck drivers to grasp the “ins and outs” of the guidelines. Hard to grasp work practices with complex job steps have been ‘demystified’, making safety hazards easier to identify.

This technology is also easily updated, and the eLearning modules will be linked into the Standard Operating Procedure database in future.

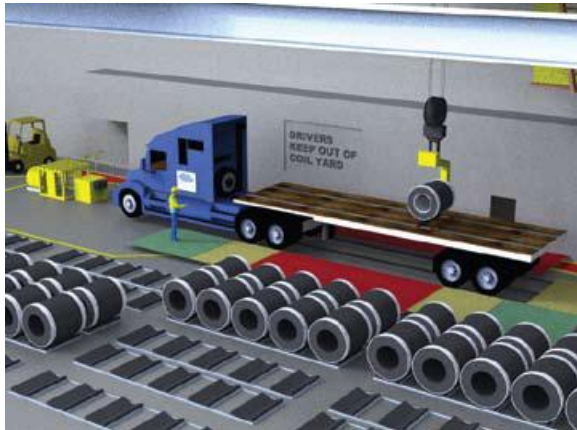
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*“Revisia’s work on this project will enable us to teach a huge number of people with little resource. Compared to standard methods of training, this approach dramatically increases understanding of the guidelines and leads to improved knowledge retention.”*

Gary Bright, Distribution Controller, NZ Steel

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Revisia worked closely with NZ Steel to ensure the training materials were accurate, including adapting paper-based guidelines, using existing 3D CAD models of the plant and undertaking plant tours and interviews.



**Results**

As well as being a winner at the 2009 NZ Workplace Health and Safety Awards, the project has contributed to NZ Steel’s overall safety performance. In the same year, the company reduced the number of medical treatment injuries (MTIs) by 40% and celebrated one year lost-time injury-free (LTI free).

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*“People are far more inclined to learn hands-on tasks by doing what they see, not doing what they read.”*

Mark Foster, Revisia

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**Benefits of NZ Steel’s safety training**

- Reduction in incidents
- Training time nearly halved
- Complex procedures and spaces are easy to understand
- Standardised training procedures improve compliance
- Contractors and drivers from different trucking firms can be trained offsite
- Can be viewed on a standard PC and online
- Able to be tailored and updated

New Zealand Steel found the visualisations have streamlined its training delivery, reduced the amount of one-on-one time spent with instructors and ensured essential safety messages are communicated consistently. It is estimated that the number of training hours was nearly halved. The vastly improved training materials have also contributed to a positive health and safety culture which leads to improved OSH compliance and fewer accidents.

Revisia’s 3D solutions have been adopted at New Zealand Steel beyond health and safety. Plant maintenance personnel use 3D models to plan and develop optimal work practices, and have saved thousands of dollars by rehearsing maintenance shutdowns virtually.

## About Revisia

Revisia is New Zealand's foremost expert in 3D modelling and animation to improve industrial maintenance and risk management.

Our visual, team-based solutions take cost and risk out of operations to reduce maintenance downtime, mitigate errors and promote safe work practices. The result is significant savings and measurable productivity improvements that help asset-intensive companies in metallurgy, mining, energy, power generation, pulp and paper beat their current year maintenance budgets.

Revisia's internationally-experienced team of business analysts, engineers and CAD operators embed themselves on-site in clients' operations and culture. This deep engagement and Revisia's industry expertise allow consultants to handle complex assignments quickly and ensure that scenario plans, simulations and training meet front-line staff's needs.

## About Nextspace

Nextspace is a 3D industry catalyst and consultancy that was established with government backing to leverage Right Hemisphere's success and unique IP to enhance New Zealand's international competitiveness.

Nextspace acts as a conduit for firms, education and research organisations to access and take advantage of Right Hemisphere technology. The Nextspace team includes experienced 3D developers, content experts and sector-specific business consultants putting it in a unique position to add value to New Zealand.

A cluster of organisations have partnered with Nextspace to apply Right Hemisphere tools to new sectors such as heavy industry, construction, training, eLearning, marine, medical imaging and entertainment. Nextspace has also integrated Right Hemisphere's 3D platform into ERP, document management and customer websites.

## Taking the Next Step

To evaluate how Visual Health & Safety Training could help your business, and the solutions available contact:

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