



GENERIC INDUCTION

FOR THE MINING INDUSTRY

2007 - 2021



PREPARED BY



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Background

This article summarises the history of Energy Skills Queensland's Generic Induction training program, reasons behind its creation and its current status.

In setting the tone for this document it is important to outline the growth of the mining industry. Mining experienced significant growth in 2018-2019¹ across all data measures, especially employment, setting the background for Generic Induction training (mining) and its importance.

In comparison to other sectors such as manufacturing industry which grew by 9.1%, construction by 5.4%, health care and social assistance by 7.2%, mining industry earnings before interest, tax, depreciation and amortization (EBITDA) grew by 32.2% in 2018-2019.

'Employment for the Mining industry increased by 10,000 people (5.9%) driven by growth in the Metal ore mining subdivision which increased employment by 6,000 people (9.0%).'²

History

The Generic Induction (mining) program was first introduced in 1997 after recognising that there was significant duplication in the way this training was conducted by Queensland mining organisations for their employees. Specially, if the employees were hired through labour hire contracting companies or if they were providing ancillary services to mine sites, those working in such organisations had to undergo similar inductions on different sites every time they entered a mine site. This duplication came at a high price for employers and employees both in terms of cost and time.

By 2006 there was a widespread uptake of Generic Induction (mining) across all sectors of the Queensland mining industry. However, by 2007 it was recognised that a review of the program was needed. Therefore, the Mining Industry Skills Centre (MISC) was tasked by the then Department of Training to complete this review and in partnership with the Minerals Industry Safety and Health Centre, they updated the program in the following areas with a focus on quality and consistency of delivery -

¹ Australian Bureau of statistics – 2018-2019 financial year

² Australian Bureau of statistics – 2018-2019 financial year

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- A rewrite of the Generic Induction (mining) program including a core and elective approach.
 - The development of materials to assist trainers in their delivery.
 - The creation of interactive training tools to support each topic.
 - Modification of the course feedback process to provide continual improvement opportunities.
 - Re-development of Generic Induction (mining) online including the capability to customise the tool for site requirements.
 - A re-write and reformat of printed course materials.
 - Identification of the professional development needs of trainers.
 - A review of the licensing process for Registered Training Organisations (RTOs).³

Later in 2010, Standard 11 (6 competencies from Mining Industry Package) was introduced by the Resource Registered Training Organisation (RRTO) with the intention of standardising induction training across the Queensland mining industry. This was predominantly a classroom-based training activity and a statement of attainment was issued at the end of the training program.

According to documented evidence by the Resources RTO Association (November 2011), a forum consisting of industry representatives and RTOs gathered to iron-out concerns raised by the mining companies and MISC in relation to delivery of Standard 11. ⁴

Consensus stemming from these discussions were:

- A Statement of Attainment should not be issued without clear demonstration of workplace evidence/experience - this was the desired position, however this is sometimes seen as not practical from some sites.
- The issuing of a Statement of Attainment for 6 units of competency after 3 days in the classroom only, without the capture/verification of site workplace evidence, was not acceptable.
- As the training package was currently written, a statement of attainment (SOA) could only be issued without on-site evidence - competencies should be validated on site after site inductions and other requirements have taken place once the inspectorate has undertaken their investigation, greater clarity may be provided as to how this can be achieved).
- A Statement of Attainment for all 6 competencies within Standard 11 should not be completed offsite. However, there may be some competencies that could be achieved in the classroom. Therefore, clarification was needed as to what evidence/understanding is to be achieved in a classroom and what is to be achieved on a site.

³ Mining Industry Skills Centre News Letter, Issue 1/ September 2006

⁴ Ref 'Documents related to Standard 11 Training (a history), compiled from publicly available sources'

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- In terms of simulated workplace/s it was agreed that the level of simulation required to adequately replicate the mine site environment and conditions could be cost prohibitive to RTOs.
 - Some competencies could be modified to allow for their completion offsite - such modification occur via the various Skills DMS working parties.
 - There were many pathways to gain an SOA - an SSE was required to validate competency in the context of the workplace, capturing evidence in a mine site was considered an important part of the process.
 - The obligation of the SSE to be satisfied that the people employed carried the right competencies to work safely and competently, as well as to work safely and completely.
 - The obligation of the SSE to implement and meet the obligations of Standard 11.
 - The mapping of the various inductions products to show the alignment to the competencies within Standard 11 was seen as best practice.³

In 2013, the Mining Industry Skills Center (MISC) was dissolved, and Energy Skills Queensland took over the Mining Generic Induction resources with a view to improve the program and delivery mechanisms. This resulted in over 40,000 employees working in mining related roles receiving this training under Energy Skills Queensland's stewardship.

In 2017, Coal Mining Safety and Health Regulation Section 84, (under Coal mining Safety and Health Act 1999) was introduced as a mandatory refresher safety training requirement⁵. The Regulation prescribes that;

(1) The site senior executive for a coal mine must ensure each coal mine worker at the mine, including each worker holding a senior management or supervisory position and each worker holding a certificate of competency, is given refresher training under the mine's training scheme at least once every 5 years.

(2) The worker must undergo the training.

This requirement led to Energy Skills Queensland developing resources around refresher training where learning circles and experiential learning methods are used to train already experienced mine staff. Topics such as the importance of communication between supervisors and colleagues, conducting group risk assessments, attending to emergencies, providing emotional support, and first response first aid were reiterated through case studies and group discussions in this program.

⁵ Coal Mining Safety and Health Regulation 2017 Chapter 2 All coal mines Part 11 Training

Following a fatality on the 7th of July 2019 which then took the total fatalities to five (5) in the 2018/2019 financial year, Honorable Dr. Anthony Lynham, then Minister for Natural Resources, Mines and Energy, announced an expert review would be undertaken to identify changes needed to improve health and safety in Queensland mines and quarries.

In December 2019, a review led by Dr Sean Brady⁶ recommended 11 areas of focus. This report examined all fatal accidents in Queensland mines and quarries from 2000 to 2019. He considered the following -

- Why mine workers died over last 20 years.
- How the industry can improve.
- How the mines inspectorate can work better.

Four out of the eleven **recommendations** were directly related to gaps in training.

- a) Mines have a fatality cycle unless it makes significant changes to how it operates. This pattern has been evident over the past 19½ years and is characterized by periods where a significant number of fatalities occur, followed by periods where there are few to none. This suggests that the industry goes through periods of increasing and decreasing vigilance. Past behaviour suggests that up to 12 fatalities are likely to occur over any 5-year time period.**
- b) Causes of fatalities are typically a combination of banal, every day, straightforward factors, such as a failure of controls, a lack of training, and/or absent or inadequate supervision.**
- c) A total of 17 of the 47 fatalities involved a lack of task specific training and/or competencies for the tasks being undertaken. A further 9 had inadequate training. Lack of training resulted in the worker being unaware of the hazards involved in completing the task or the worker operating equipment in a manner that exposed them to hazards.**
- d) Seventeen of the fatalities involved a lack of training or inadequate training for the specific task being undertaken and inadequate or absent supervision. Not only does absent or inadequate supervision allow tasks to be approached in an unsafe manner, but it also greatly amplifies the consequences of a lack of training or ineffective or unenforced controls.**

Since this report was published Queensland mining sector reported another fatality in 2020. It is also important to note that we have not discussed near misses in this report.

⁶ Heywood, B, 2019, pp74

Conclusion and Recommendations

It is important to conclude with a note of thanks to those who contributed to this product over the years, and to suggest a number of recommendations going forward. In providing these recommendations we re-examined how Energy Skills Queensland has led the Generic Induction training program including how it is being delivered by current partner RTOs. We focused mainly on the quality of the program, the industry experience of the trainers, the currency of its resources, the delivery methods and overall credibility of the RTOs. Other areas of focus included how other RTOs and mining organizations delivered this program in Queensland.

Based on these findings we have made the following changes to our program.

1. Incorporated additional knowledge areas to comply with the modified Six Units of Competencies in Mining (RII) training package. That is, Energy Skills Queensland has -

- Rewritten the Generic Induction training program to meet current Standard 11 requirements and mapped its resources and learning outcomes to these six units of competencies. This included a suite of PowerPoint presentations, in class activities (formative assessments), knowledge questions, and a practical assessment logbook (summative assessment).
- Creating new interactive training tools to support each topic.
- Re-development of Generic Induction online program material using a learning management system (LMS) including the capability to customise the tools for site requirements.
- Included an e-book (reference book).

2. Mandated our partner training organisations to -

- Complete a practical assessment logbook predominantly covering risk assessments and emergency response procedures.
- Conduct the practical assessments in a simulated environment under strict supervision by a trainer who has extensive experience in mining industry.
- Deliver a three-day program with two days of in-class practical assessments, and one day of simulated exercises and practical summative assessment covering an introduction to the mining industry, an introduction to general mine site work processes/procedures, conducting risk assessments on mine sites and applying risk control, communication on mine sites, applying initial response First Aid, and how to respond to local emergencies and incidents.

3. Modified the Course Feedback process to continually improve opportunities based on industry feedback.

4. Reviewed licensing processes for RTOs.

5. Audited the current delivery mechanisms to maintain quality of the program.

References

1. Australian Bureau of statistics – 2018-2019 financial year.
2. Mining Industry Skills Centre News Letter, Issue 1/ September 2006.
3. Documents related to Standard 11 Training (a history), compiled from publicly available sources.
4. Coal Mining Safety and Health Regulation 2017 Chapter 2 All coal mines Part 11 Training.
5. Heywood Brady, (2019). Review of all fatal accidents in Queensland Mines and Quarries from 2000 to 20019.