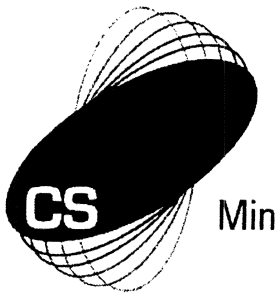

Mines Rescue Pty Limited

Competency Based And Keeping Pace

Abstract

Due to diminishing employee numbers in the NSW [Australia] coal industry there has been a reduction and loss of trained Mines Rescue Brigadesmen in each of the four (4) mining districts. The possibility of inter-district interaction or response by Brigadesmen, Incident Management team members and equipment in a major emergency deployment is ever increasing.

The need for total standardization of all NSW Mines Rescue systems has never been more evident. This has led to the formation of the NSW Mines Rescue Standardisation Committee which is made up of one key staff member from each of the stations. This Committee's role is to make sure that equipment, training, records and systems are standardized and inter-changeable between all operations and that 'best practice' is adopted by the Service.

As part of this standardization, NSW Mines Rescue Pty Limited has developed a competency based training system for Mines Rescue training and procedures for its Brigade and Staff.

History of NSW Mines Rescue

In 1926 mines rescue facilities were established in New South Wales [Australia] for underground coal mines following the promulgation of the Mines Rescue Act 1925 Act No3 [assented 28 September 1925]. The Act stemmed from political, industrial and social reaction to occurrence of a number of mine disasters in New South Wales over the preceding thirty years, which had claimed 313 lives. The Act established stations in the 4 proclaimed coal mining districts of NSW.

Various regulations have been made since the promulgation of the original Act to address matters such as the election and conduct of district rescue committees [who oversaw the operation of their district stations], duties of rescue station personnel, training standards, rescue procedures, code of signals, rescue station facilities, equipment and vehicles, rescue facilities at mines and contribution of coal owners.

NSW Coal Industry Bill "2000"

The introduction of the " Coal Industry Bill 2000" saw the amalgamation of three organizations, The Joint Coal Board, Coal Mines Insurance, and Mines Rescue into private companies under Coal Services Pty Limited as of the 1st January 2001.

Unit MNC.U033.A **Preserve life and promote recovery**
Provides a description of the competency required for preserving the life of injured persons, and enabling the recovery of injured or dead persons resulting from an incident at an underground coal mine, whilst ensuring the safety of the rescue team

The 3 other Competency Standards include:

Unit MNC. U034.A **Lead and ensure safety of rescue teams in all operations**
Describes the competency requirements of the leader of a rescue team in managing the team members and resources during a rescue operation, and his/ her responsibility towards the team members health, safety and emotional wellbeing

Unit MNC.U035.A **Establish and ensure the integrity of Fresh Air Base**
describes the competency required to establish a fresh air base, manage the resources of fresh air Base and communicate between rescue teams and the Incident Management Team

Unit MNC.U36.A **Coordinate rescue team resources**
Outlines the competency requirements of persons on the surface who coordinate the activities of mines rescue teams during rescue and restoration operations. It covers the organization and equipping of rescue team members, and the allocation and continuity of resources for rescue operations

Supporting material

Emergency Preparedness and Mines Rescue Guidelines
These guidelines have been developed through detailed risk assessments and consultation with industry and Mines Rescue experts both within Australia and Overseas. Ongoing annual reviews are conducted taking into account underground mine emergencies, simulated emergencies and general application of the guidelines to ensure they remain both functional and practical

It provides guidance to Incident Management teams, Mines Rescue officials and Brigadesmen in regards to their responsibilities and conduct in an emergency. These Guidelines were initiated after the reentry and recovery of Endeavor colliery following an explosion in 1997

Emergency Preparedness and Mines Rescue Encyclopedia.
In Mines Rescue literature, this book fills the void between procedural texts and research papers. It encompasses the theories and the facts and figures pertaining to emergency preparedness, mines rescue and related topics.

The book is a successor to " A manual of mines Rescue and gas Detection " by J Strang and P Mackenzie – Wood, and reflects the shift to emergency preparedness and self escape systems promoted by the Moura 2 disaster in 1994.

Utilization Of Knowledge Internally And Externally

By continually reviewing and providing feedback for all involved in Mines Rescue, our Mission statement objectives can be met. We encourage our Brigadesmen to challenge what and how we operate and if improvements can be made these are acted upon.

The use of Intra and Inter net facilities in the future will enable us to keep pace with an ever changing workplace.

Conclusion

The permanent staff of NSW Mines Rescue are the keepers of the competencies. We have a responsibility to those before us and to those who will follow us to maintain the excellent standard and traditions of our heritage. Under our " Duty of Care" we now have a tool to determine and show evidence of an individual's initial and ongoing competence for Mines Rescue work.

It is a rewarding exercise to give value back to the coal mining industry by up-skilling a significant portion of the workforce. NSW Mines Rescue contributes in no small part to the health and safety of the coal industry workforce.

The Author

Greg Allen was employed as an underground coal miner / miner driver in 1978, and inducted into the Mine's Rescue Brigade in 1982. Greg commenced full time employment in NSW Mines Rescue as a Corpsman in 1985, then an appointment as Instructor in1995up until the present. Along with current responsibilities he is the chairman of the NSW Mines Rescue Standardization committee 2003.

For further information visit our web site
[Mines Rescue page to be added by December 2003]
www.coalservices.com.au

Retraining Module Content

Trainees will practice and be assessed on the following:

- Testing and use of breathing apparatus.
- Call-out procedures.
- Rescue team response and entry to an underground incident.
- Equipment pre-checks.

Module Resources/Equipment

- Rescue Station facilities
- Rescue vehicle.
- Audit checklist.
- District map.
- Call-out procedures.
- BG174.

Retraining/Assessment Activities

Training A involves an audit of the Mines Rescue emergency vehicle, and the location of the Station's response equipment. This would involve check sheets to locate equipment.

Training A would also involve a map reading exercise to locate the mines in the district.

The underground exercise will be in BG174 and involve:

- the setting up of a Fresh Air Base to Mines Rescue *Guidelines;*
- making arrangements for Fresh Air Base; and
- gathering of appropriate additional team equipment for the tasks allocated to the team members.

Module Revision References

Training Modules:	Module UR1.	Breathing Apparatus.
	Module UR3.	Operational Team Procedures.
	Module UR4.	Atmospheric Hazards and Testing.
	Module UR5.	Fresh Air Base.
	Module UR7.	Underground Call-out Procedures.
	Module UR11.	Hazard Identification and Control.
Training Manual:	Section xxx	

Retraining Module RET-A Assessment Checklist

Trainee Name: ..... Date:.....

Resources/Equipment Used

Rescue vehicle	Rescue Station facilities.	Audit checklist.	District map	Call-out procedures.	BG174		

Performance

PERFORMANCE	STANDARD	WHERE/HOW DEMONSTRATED	Demonstrated Competence Yes/No
1.3.2. Operate in breathing apparatus.	1. Pre-operational tests are carried out by wearer in accordance with manufacturers' specification and/or Mines Rescue Service standard procedures.	• Using testing equipment and test sheets on location or in MRS apparatus room. By observation to assessor's standards	Yes / No / NA
	2. Pre-use surface checks are carried out by wearer and team leader or allocated responsible person.	• Team leader uses captains sheet or BA controllers sheet in conjunction with team member. On surface through observation and examination of captains sheet	Yes / No / NA
	3. Pre-use surface checks are verified and recorded that checks have been carried	• Team utilises captain's sheet and fills in sheet accordingly	Yes / No / NA

PERFORMANCE	STANDARD	WHERE/HOW DEMONSTRATED	Demonstrated Competence Yes/No
	accordance with Mines Rescue Service standard operating procedures, manufacturers' specifications and statutory requirements. 9. Team call-out procedures are practiced regularly in accordance with standard operating procedures, competency standards and MRB *Guidelines.* 10. Personal readiness is ensured. 11. Individual medical standards and fitness levels are maintained in accordance with Mines Rescue Service medical and fitness standards.	• Questioning and simulation • Reference made to guidelines • Reference made to fitness for duty – current status of trainee	Yes / No / NA Yes / No / NA Yes / No / NA
1.1.2. Respond to incident.	12. The affected mine and the nature of the emergency are advised and confirmed. 13. Equipment is identified and despatched according to	• In simulation information should be required to be repeated. • Trainee reports to mine or station and gathers relevant equipment	Yes / No / NA Yes / No / NA

PERFORMANCE	STANDARD	WHERE/HOW DEMONSTRATED	Demonstrated Competence Yes/No
mine.	established from current Mine Plans and verified with team leader.		
	19. Mine atmosphere is evaluated to determine location of FAB.	• Observation of atmospheric monitoring techniques in a simulated area or actual location	Yes / No / NA
	20. Fresh Air Base is established.	• Guidelines are accessed to determine establishment of FAB	Yes / No / NA
	21. Team is assembled with numbers between the minimum and maximum specified in the MRB *Guidelines* for a rescue team.	• Guidelines are accessed to determine make up of teams	Yes / No / NA
	22. Stand-by team is available with numbers between the minimum and maximum specified for a rescue team in the MRB *Guidelines*.	• For the particular simulation standby team is established using the Guidelines.	Yes / No / NA
	23. Pre-operational briefing is received and verified.	• All points noted and captains sheet utilised	Yes / No / NA
	24. Recommended routes are identified from the mine plan.	• Marked on the plan	Yes / No / NA
	25. Appropriate gas measurement instruments	• Gas monitor(s) selected for simulated condition and unit tested for fitness for service (see MRS assessment	Yes / No / NA