

BENCHMARKING SAFETY - THE BHP MINERALS EXPERIENCE

BHP Minerals has identified safety in the workplace as its number one priority. It is recognised that our current performance in safety needs to improve significantly - our goal is to be one of the safest mining companies in the world.

We have adopted a strategic planning approach to achieve this goal. This involves -

1. First measuring 'where we are today' in safety.
2. Setting our sights on the safety performance level we need to obtain, and
3. Identifying and implementing effective techniques and action steps to help us get there.

In March last year, Jerry Ellis, our CEO of BHP Minerals commissioned a benchmarking project on safety as a critical first step in this strategic planning process.

The Benchmarking Safety effort was led by our Group Manager Safety - Stan Thielke and a team of safety professionals, engineers and human resource people was assembled from the different operating groups of Minerals.

I was indeed fortunate to be able to participate on the team as the Australia Coal representative. Three advisers were also appointed to provide support and external benchmarking consultants, American Telephone and Telegraph (AT&T) were contracted to facilitate the process.

The Benchmarking Process

The teams first task was to develop a comprehensive list of safety topics/activities which could be used to study and assess the 'level of safety performance' of an operation.

In order to benchmark effectively you really need to know how you stack up before you start visiting other operations to compare their efforts and achievements. Thirteen BHP Minerals operations as well as twelve outside companies considered best in class were benchmarked.

Data was collected in each topic area using a set questionnaire which we had developed. Several levels in an operation typically the Manager and OHS professional, Superintendent/Supervisor and employees were consulted to collect the information and during the site visit a walk around provided an opportunity to see the OHS efforts in action.

This yielded a profile of Minerals current safety practices in each category studied. More importantly the study's gap analysis - eg. comparison of Minerals data and that of the external subjects - provided a very clear picture of how our practices compare with those in Best in Class companies.

This data also yielded specific performance goals and pointed to improvement initiatives to achieve these goals. In essence it answered 'where we are today', 'where do we want to be' and flagged opportunities and avenues to get there.

Selection of Subjects to Benchmark

Obviously a critical part of the exercise was selecting the sites to benchmark in the study. To define our baseline in Minerals 13 sites were selected to represent a cross section of our organisation. Perceptions of the sites current safety performance were not a factor in their selection.

For the twelve external subjects however safety performance was the most critical criterion. Other factors used in order of priority were Risks of an Operation, Reputation of the Company, a Multinational Operator, Presence in Developing Countries and Common Language.

The objective with these criteria was to select subject companies who face safety challenges similar to BHP Minerals and consistently achieve high levels of safety performance in spite of these challenges. This is what we came up with -

The external partners were:

Phelps Dodge Morenci operation, RT2 Utah Copper, Palabora, Rossing and Ria Paracatu operations, Du Pont Fibremakers operation, Johnson & Johnson, Shell Callide Coalfields operations and Fluor Daniel.

The whole purpose of the study was to find out what they do differently to achieve it.

A Sample of the Findings

Over 50 different aspects were surveyed at the outset but these were then grouped into the following categories for analysis.

- General background.
- Safety objectives and performance.
- Safety accountability.
- Accident reporting and investigation.
- Selection and training.
- Safety risk analysis and support processes.
- Employee safety involvement.
- Vehicle and Equipment safety procedures and guidelines.
- Safety environment.

The eight selected items are representative of key findings.

1. To what do you attribute your organisations good safety performance?

Best in class companies cited Management leadership (100%), and employee involvement (75%) as the most critical components for success.

In BHP Minerals these were also considered key elements. Management commitment (69%), Employee Involvement (31%) and Safety Awareness (62%).

2. *Do you prepare action plans to improve safety?*

Formal action plans are used by all Best in Class companies surveyed (100%), while only 77% of the Minerals sites survey responded positively to this question.

3. *What training is provided in the induction/orientation process?*

Without exception the Best in Class companies place great emphasis on safety training - 83% require newly hired employees and contractors to complete a 24 hour safety training course before commencing work. In contrast, 78% of Minerals sites rely only on the supervisors to provide safety training during the employee/contractors first days on the job and only 15% offer 24 hours of formal training to newcomers.

4. *How do managers and supervisors build employee safety awareness?*

BHP Minerals sites and external companies all report they conduct safety meetings. However consistently ;larger percentages of big companies also employ formal safety communications programs (78% vs 30% Minerals). Employee involvement initiatives (66% vs 30% Minerals) and safety training (100% vs 23% Minerals) in this area.

5. *What equipment lockout and tagout procedures do you use?*

100% of BHP Minerals use tagout procedures and 38% also use a lock as well. External Best in Class prefer lockouts (92%).

6. *Describe your safety auditing programs.*

Best in Class companies without exception consider auditing to be a critical component of successful safety programs. 100% of 12 organisations use both internal and external auditing to track performance and identifying areas for improvement. Only 38% of Minerals sites do the same, 16% use outside professionals only and 8% rely on their own audits.

Preliminary Conclusions

An analysis of the preceding 50 survey items has yielded a clear picture of Characteristics of BIC company safety.

They all have -

1. Formal safety programs that are universal across their business operations which allows ready comparison and transfer of skills.
2. Personal management commitment and leadership with numerous examples of personal involvement.
3. Beyond using it as a slogan, the safety first philosophy is embraced by all employees.
4. Employees are involved and empowered taking part in inspections, safety related

decisions and are able to refuse to perform hazardous tasks without fear of retribution.

5. Uniform standards are in place which are routinely evaluated internally and by external audit on a scheduled basis.
6. Formal risk assessments and management procedures are in place - they are applied when planning new operations, purchasing new equipment and when reviewing existing operations.
7. High emphasis on safety and skills training for both new employees, those with new assignments and annual refresher.
8. Well structured vehicle safety program covering operator training and testing, scheduled maintenance regimens, pre-shift safety checks and traffic control systems.
9. Lockout procedures for isolating all forms of energy.
10. Contractor safety programs which define their standards for contractors and contractors are only allowed to bid for jobs if they can show an ability to work to these standards. Contractors are also regularly audited.

We have already embarked on one initiative that has arisen from this study. BHP Minerals have selected the NOSA safety framework as the platform to build a consistent approach to safety across Minerals and we plan to use these audits as the international yardstick to grade progress.

We also plan to share our experience with our benchmarking partners on an individual basis - we haven't had the opportunity to do this to date but we see this as an essential part of the exercise. Benchmarking is not a one off survey or exercise - rather a process whereby best in class practices can be identified and shared between partners on an ongoing basis.