

**MINING CERTIFICATION
EVALUATION PROJECT**

FIELD TRIAL PROCESS REPORT

MPI MINES

STAWELL GOLD MINE

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Distribution: Supporting Document 7 for MCEP Final
Report

SUMMARY

The purpose of the Mining Certification Evaluation Project (MCEP) is to evaluate the feasibility of establishing independent, third party certification of the environmental and social performance of mine sites. An important component of the project is the field trial period, which involves evaluations of how Mine Site Operators (MSOs) are addressing health & safety, employee relations, environmental, and community relations issues.

The second MCEP field trial had a dual purpose:

- 1) To collect information about how the site was addressing the issues identified in the protocol. This data would assist in the development of performance measures that will enable the scoring of mine site performance during subsequent MCEP site audits.
- 2) To test the field trial process, including the protocol (its adequacy, clarity, redundancy and so on) as well as the process of gathering data, and to make recommendations as to how the process might be improved in subsequent iterations.

This review was undertaken at MPI Mines Stawell Gold Mine (SGM) over the period 9 to 13 August 2004. The review covered activities at SGM at Stawell in central west Victoria and included some exploration activities in the area. The team consisted of a Team Leader, the Project Officer, and two staff members from WMC Resources.

The key process issues and suggested improvements, identified through the trial, are summarised below.

- The Field Trial Team made extensive comments on the protocol, which were incorporated into a new version.
- Before the field trial, the site contact provided the team with documents. For the actual certification process, documentation should be required before the audit may proceed.
- None of the field trial team had direct knowledge of the MSO or its parent company prior to the trial, and team members needed additional time to familiarise themselves with the parent company's policies. For the actual certification audits, the team will require additional time to evaluate the site's management systems and performance.
- Time constraints were a concern. For the actual certification audits, it may be necessary to allow more time. Expansion of the audit team may or may not be an advantage.
- A round table with shift employees was deemed a successful data-gathering strategy. However, more research should be conducted into social science methodologies that could be implemented in a very short time frame.
- A round table with management staff was not deemed to be very useful due to the mix of senior and junior staff.
- A group meeting was tested as an alternative means of gathering data on community perceptions. However, this format did not prove to be satisfactory as it provided inadequate opportunities to discuss issues in detail. A variety of sampling methodologies needs to be tested throughout the trials and sampling guidelines are required for external stakeholders as for employees.
- A group meeting with regulatory agency representatives and SGM representatives was found to be of limited benefit. Alternative formats for obtaining regulatory agency input need to be evaluated.
- There was a high degree of subjectivity in the audit team's findings, which reflected the team members' own experience, interests and concerns. This subjectivity resulted from the approach implemented at the SGM field trial, at which team members did not score mine site performance for each criterion against agreed-upon performance measures. Future versions of the MCEP trial protocol will need to incorporate performance measures and a ranking system.

- At SGM, which is a relatively small enterprise, systems are often not extensively documented and management procedures tend to be comparatively informal. Specific strategies for evaluating the performance of small operations with limited documentation are required if such operations are not to be unduly excluded from a certification process.

Introduction

The purpose of the Mining Certification Evaluation Project (MCEP) is to evaluate the feasibility of establishing independent, third party certification of the environmental and social performance of mine sites. *Working Paper 1 – Principles and Criteria for Certification* lists criteria for evaluating performance, building on the principles developed by the International Council on Mining and Metals.

These criteria have formed the basis of a protocol to be used in field trials, which comprise Phase 2 of the MCEP. These field trials, to be conducted at five sites around Australia and one overseas, involve evaluations of how Mine Site Operators (MSOs) are addressing health & safety, employee relations, environmental, and community relations issues. These issues are outlined in the principles and criteria and elaborated in a protocol approved by the MCEP Working Group. The trials will provide an opportunity for performance standards and a rating system to be developed and tested. They will also allow opportunities for experimenting with various data-gathering techniques. The final phase of the project will address questions of governance and institutional arrangements for an eventual certification scheme.

The second MCEP field trial had a dual purpose:

- 1) To collect information about how the site was addressing the issues identified in the protocol. This data would assist in the development of performance measures that will enable the scoring of mine site performance during subsequent MCEP field trials. (See Appendix 1 for definitions of performance measures and scoring.)
- 2) To test the field trial process, including the protocol (its adequacy, clarity, redundancy and so on) as well as the process of gathering data, and to make recommendations as to how the process might be improved in subsequent iterations.

This review was undertaken at SGM over the period 9 to 13 August 2004. The review covered activities at SGM at Stawell in central west Victoria and included some exploration activities in the area.

The site has been under management by MPI since 1992 (Magdala decline developed in 1981) and currently employs about 250 people (contractors and direct employees) producing at a rate of about 800,000 tonnes of ore per year. The ore is processed on-site to produce bullion, which is then shipped to the Perth Mint for further refining. In the past 18 months the ownership structure of SGM has changed markedly and the parent company has listed on the ASX.

The Field Trial Team comprised:

- Peter Southern (Managing Partner, ERM, Environment, Team Leader);
- Leah Horowitz (Project Officer, WWF),
- Darren Batchler (Senior Safety Adviser, WMC, Economic); and
- Chris Schultz (Principal Environmental Advisor, WMC Olympic Dam Operations, Environment)

Data gathering techniques included:

- review of documents provided by the MSO;
- team members' observations during site tours, including tours of the plant facilities and the underground operations;
- interviews with MSO staff;
- interviews with external parties.

The interviews were conducted both in person and by telephone. Interviews with staff were arranged by the site contact, after the Team Leader and the Project Officer had provided her

with a list based on SGM's organisational chart. Additionally, two round tables were held, one with management staff and one with shift employees. At the MSO's request, the Field Trial Team's interactions with external stakeholders were comprised of attendance at a meeting of the Environmental Review Committee (a forum open to all community members), a luncheon with local government representatives, and a dinner with community members.

Although the purpose of the field trial was not to score or evaluate the site's performance, team members provided feedback at the exit meeting, as a service to the site. This consisted of team members' professional opinions as to SGM's achievements and opportunities for improvement, as identified through this trial. This meeting also provided site personnel with the opportunity to provide comments on the field trial process.

Process Issues

The Protocol

This field trial used a protocol that had been modified following the first field trial. One difference was that Question #1 (on ethical business practices and systems of corporate governance) had been extracted from the Economic section and presented as a separate question to be addressed by all team members. Also, the list of indicators as to what would constitute adequate performance – intended as guidance to the field trial team rather than requirements – had been greatly expanded by the Team Leader and Project Officer, with input from some members of the Working Group. Team members stated that they appreciated these guidelines and felt that they helped to make the questions less open to interpretation.

The Field Trial Team made extensive comments on the protocol, which were incorporated into a new version, emailed to the Working Group (with changes indicated in Track Changes mode) on {}. Additionally, in response to the team's suggestion, the protocol was merged with the worksheets into one working document.

Data gathering issues

Document provision

Before the field trial, the Team Leader and Project Officer provided the site contact with a list of requested documents, which she provided in the form of a CD. Copies were in turn provided to the team members, who felt this documentation to be very useful in preparing for the field trial.

Process Improvement: The Team Leader and Project Officer should continue to request documentation prior to field trials. For the actual certification process, this documentation should be required before the audit may proceed.

Industry knowledge

None of the Field Trial Team had direct knowledge of MPI Mines' or SGM's broader objectives, systems or activities prior to the trial. Thus, this trial was a more realistic model of a certification audit, in which the audit team would be aware of industry-related issues but would not have direct experience with the company or site being audited. The team members needed to spend additional time familiarising themselves with the parent company's policies.

Process Improvement: For the actual certification audits, the audit team will require additional time to evaluate the site's management systems and performance, especially in areas related to corporate governance.

Time constraints

The team members reported that they were unable to examine all the questions as thoroughly as they would have liked, with sufficient interviews and verification. This was likely due to a number of factors. First, as outlined above (see section 2.2.2), the team members were not familiar with MPI Mines. Secondly, the team reported that some of the meetings and site tours were not time effective (see sections 2.2.5, 2.2.6, 2.2.7). Perhaps most importantly, a few individuals detained much of the key knowledge about HSE&C issues for SGM. These individuals' availability determined the speed at which team members were able to progress with data collection. Thus, more time for the field trial would have been very helpful, although expansion of the audit team would not have been an advantage.

Process Improvement: For the actual certification audits, it may be necessary either to allow more time, especially for cases in which a few individuals are key to the knowledge on HSE&C management and performance. Expansion of the audit team may or may not be an advantage.

Sampling of workforce

Interviews with shift employees consisted of spot interviews during site inspections as well as a round table with a few shift employees in the absence of their supervisors. This was the first time that a round table had been used to interview shift employees. The team felt that this format was successful in that it allowed the employees to speak freely, and their interactions stimulated discussion amongst the employees themselves.

However, a sampling methodology for ensuring representativeness of employees; determining numbers of employees to sample; and evaluating satisfaction with working conditions and awareness of health & safety, employee relations, equal opportunity, and environmental policies and procedures had still not been clearly defined. Initial research had been conducted, but this indicated that typical social sampling methodologies could not be implemented in the restricted time frame of the field trials.

Process Improvement: The round table with shift workers should be replicated at future field trials. More research should be conducted into social science methodologies that could be implemented in a very short time frame.

Round table with management staff

In addition to the round table with shift employees, a separate round table was arranged with management staff. The team's evaluation of the usefulness of this exercise was mixed. Although it provided an opportunity for discussion of certain issues, the effectiveness of this format was limited by the inclusion of both senior personnel and their subordinates. The team felt that the more junior staff members may have felt uncomfortable raising certain issues in the presence of senior staff, and vice versa.

Process Improvement: The round table format should not be used with management staff in future, except possibly with staff who are all at the same level. Instead, this time should be used for one-on-one interviews.

Sampling of external stakeholders

For this field trial, at SGM's request, an alternative format for gathering data on community perceptions was tested. This consisted of a group meeting over dinner with the team, some SGM staff members, and ten community members selected by SGM. This arrangement was selected to support the MSO's aim of maintaining good relations with the community after a difficult period some years previously. However, this format did not prove to be satisfactory either for the team or the participants as it provided inadequate opportunities to discuss issues in detail. The team felt that one-on-one interviews would have provided more useful information, despite being more time consuming.

Clearly, the size and composition of the population of external stakeholders will vary from site to site, making it difficult to set guidelines that would be applicable across sites. Also, it may not be feasible, given the time constraints, to implement typical social science sampling techniques when selecting interviewees. Guidelines for determining sample size and constitution are required. This would require a far greater analysis and understanding of the demographics of the community in which a mine operates.

Process Improvement: A variety of sampling methodologies needs to be tested throughout the trials and sampling guidelines are required for external stakeholders as for employees.

Regulatory stakeholders

A selection of regulatory agency representatives was invited, by SGM, to a meeting with the team to discuss SGM's performance. This format was of limited benefit due, in part, to the varied interests of the participants, and possibly to the presence of SGM representatives. The team members felt that this meeting was not an efficient use of time. Whether the agencies would be prepared, in a different forum, to provide specific details of issues (positive or negative) was unclear. However, as regulators are a key stakeholder, alternative means of gaining input are required.

Process Improvement: Alternative formats for obtaining regulatory agency input need to be evaluated.

Subjectivity

The purpose of this field trial was to collect data rather than to score the site's performance. However, as noted above, the exit meeting provided the team members with an opportunity to give the site their professional opinions as to the most significant areas in which they were performing well and in those which there was room for improvement. Because the trial protocol did not contain performance measures against which to assess the site's performance, the evaluations made by team members, and the priorities they identified, clearly reflected their own experience, interests and concerns.

Although the evaluations were offered for the benefit of the site rather than the MCEP process, the subjectivity inherent to these reports served to highlight the importance, to any certification scheme, of designing a protocol that would, to the extent practicable, eliminate interpretation by individual auditors.

Process Improvement: Future versions of the MCEP trial protocol will need to incorporate a ranking system with performance measures for each level, against which the site's performance can be measured.

Relationship of the MCEP to existing audit processes

Applicability to small to medium enterprises

The protocol, as structured, focuses heavily on the MSO's systems in addition to its performance. At SGM, which is a relatively small enterprise, systems are often not extensively documented and management procedures tend to be comparatively informal. For instance, senior managers of the parent company have substantial and frequent, but undocumented, interactions with site personnel. Such verbal interactions may be sufficient for SGM's purposes. However, in the absence of documentation of systems and procedures, or extensive monitoring data, it is difficult to determine how such a site would be evaluated in a formal certification process. Specific strategies for evaluating the performance of small operations with limited documentation are required if such operations are not to be unduly excluded from a certification process.

Process Improvement: A policy decision and related changes to the protocol are required to address the potential exclusion of (small) sites with limited documentation but with strong management input.