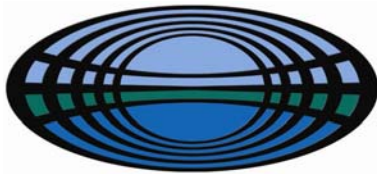


The following document is one of the key Management Plans prepared by Magellan that detail how the company will meet the stringent conditions imposed by the Western Australian Minister for Environment on its sealed shipment process for lead carbonate concentrate through the Port of Fremantle.

The Minister for Environment formally signed-off Magellan's key Management Plans, including the following document, on 13 August 2009.

The Minister for Environment's sign-off constituted the final stage in the approval process for Magellan to commence exports of lead carbonate concentrate sealed in bulk bags and locked in steel shipping containers through the Port of Fremantle.



strategen

**Implementation of
Condition 10 of EPA
Assessment No. 1773**

**Magellan Lead Carbonate
Concentrate**

Prepared for
Magellan Metals Pty Ltd
by Strategen

June 2009

**Implementation of Condition
10 of EPA Assessment No.
1773**

Magellan Lead Carbonate
Concentrate

Strategen is a trading name of
Glenwood Nominees Pty Ltd
Suite 7, 643 Newcastle Street Leederville WA
ACN: 056 190 419

June 2009

Disclaimer and Limitation

This report has been prepared for the exclusive use of the Client, in accordance with the agreement between the Client and Strategen (“Agreement”).

Strategen accepts no liability or responsibility whatsoever for it in respect of any use of or reliance upon this report by any person who is not a party to the Agreement.

In particular, it should be noted that this report is a qualitative assessment only, based on the scope of services defined by the Client, budgetary and time constraints imposed by the Client, the information supplied by the Client (and its agents), and the method consistent with the preceding.

Strategen has not attempted to verify the accuracy or completeness of the information supplied by the Client.

Client: Magellan Metals Pty Ltd

Report	Version	Prepared by	Reviewed by	Submitted to Client	
				Copies	Date
Preliminary Draft Report	V1	EP	LC	1 electronic	24 Apr 08
Draft Report	V2	EP/PB	CW and Magellan	1 electronic	21 May 08
Draft Report	V3	EP/PB/LC	Magellan	1 electronic	30 May 08
Draft Report	V4	EP/PB/LC	Magellan/KO	Hard copy	26 June 08
	V5	PB/LC	Magellan	Hard copies to agencies	3 July 08
Final Report	Final	LC/JM	Magellan	1 electronic	19 August 08
Final Report (updated)	Final2	KB	Magellan	1 electronic	14 November 08
Final Report (updated)	Final3	KB	Magellan	1 electronic	18 April 08

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 BACKGROUND	1
1.2 STATEMENT	1
1.3 DEFINITION OF THE INSPECTOR/AUDITOR	2
1.4 PURPOSE OF DOCUMENT	2
2. IMPLEMENTATION OF CONDITION 10	3
2.1 APPOINTMENT OF INDEPENDENT ACCREDITED INSPECTOR/AUDITOR	3
2.2 ROLES AND RESPONSIBILITIES	3
2.2.1 Auditing	3
2.2.2 Inspections	5
2.2.3 Monitoring	6
2.2.4 Condition 10-1 (4) and 10-1(5) Reporting	6
2.2.5 Training	8
3. REFERENCES	9

LIST OF TABLES

1. Summary of reporting requirements of the Independent Auditor	7
---	---

1. INTRODUCTION

1.1 BACKGROUND

Magellan Metals Pty Ltd (Magellan) operates an open-cut lead carbonate mine and processing facilities approximately 30 km west of Wiluna, Western Australia.

The implementation of the original proposal was approved by the Minister for the Environment in November 2000, with the issue of Statement No. 559. The original proposal was for mining and processing facilities at Wiluna and for the bulk export of lead carbonate concentrate through the Port of Geraldton. On 29 December 2004, the Minister for the Environment approved a variation of the original proposal to export concentrate through the Port of Esperance rather than the Port of Geraldton. Mining commenced in November 2004 and bulk concentrate was exported through the Port of Esperance from June 2005 until 12 March 2007.

Magellan sought to change the export handling and transport procedures so that lead carbonate concentrate is shipped through Fremantle Ports in sealed bulk bags inside locked shipping containers. Under the changed proposal, concentrate produced, bagged and locked in steel shipping containers at the mine site will be transported by road to Leonora and then by rail to Fremantle Ports, where it will be exported.

1.2 STATEMENT

Statement 783 was released in February 2009. Condition 10 of Statement 783 requires Magellan to engage the services of, and provide necessary funding for, an independent inspector/auditor accredited by an appropriate national body. Specifically, Condition 10 states:

“10 Accredited auditor

10-1 Prior to removing shipping containers of lead carbonate concentrate from the mine-site at any time after 1 January 2009, the proponent is to engage the services of, and provided necessary funding for, an independent auditor accredited by an appropriate national body, to be approved by the Minister for Environment on the advice of the CEO. The auditor is to be engaged and funded to undertake the following in an independent manner:

- 1. Auditing the processes for the packaging and transport of the lead carbonate concentrate from the mine-site through to export from the Port, including the use of top-loading machines for the transport of the shipping containers;*
- 2. Inspecting all bags of lead carbonate concentrate after they are sealed, prior to and after they are loaded into shipping containers, and inspecting all shipping containers after they are loaded and locked and prior to their removal from the mine-site for the presence of material containing lead carbonate outside the sealed bags;*
- 3. Carry out random dust monitoring inside shipping containers, by selecting containers at random, without the knowledge of the proponent, and place dust monitors inside those containers prior to their removal from the mine-site, removing the monitors at the port to test for the presence of lead carbonate dust;*

4. *Immediately reporting any findings to the CEO and the proponent of material containing lead carbonate outside the sealed bags after a shipping container is removed from the mine-site; and*
 5. *Reporting the findings of the inspections, auditing and monitoring to the reference group referred to in Condition 11-1.*
- 10-2 *Prior to removing shipping containers of lead carbonate concentrate from the mine-site at any time after 1 January 2009, the proponent shall, in consultation with the Department of Environment and Conservation, the Department of Health, and the Department of Mines and Petroleum establish and document the detailed roles and responsibilities of the auditor engaged under condition 10.*

1.3 DEFINITION OF THE INSPECTOR/AUDITOR

The Condition requires three distinct tasks to be undertaken by an independent entity (ies) referred to in the condition as the “*independent auditor accredited by an appropriate national body*”. The three tasks are auditing, inspecting and monitoring. Auditing and inspecting are quite different processes and require different skills and qualifications.

This document breaks the three tasks required under Condition 10 into two separate and distinct roles:

1. An independent accredited inspector (herein referred to as the Independent Inspector) to undertake inspections and monitoring as per Condition 10-1(2), 10-1(3), 10-1(4) and 10-1(5).
2. An independent accredited auditor (herein referred to as the Independent Auditor) to undertake auditing as per Condition 10-1(1) and 10-1(5).

These roles will require more than one person (nominally two persons) to fulfil the required tasks, but they will be undertaken by one qualified organisation, which is accredited by an appropriate national body. It is also important to note that more than one Independent Auditor and Independent Inspector is required (nominally two auditors) as there are duties that are to be undertaken simultaneously at the mine and at Fremantle Ports. Should an auditor be required to take a leave of absence for any reason from their duties, an appropriately trained and qualified individual from the organisation undertaking the work will be appointed as a replacement.

Magellan will ensure that the appointed auditor(s) will report the findings of the inspections, auditing and monitoring, in the first instance, to an appropriate reference group with relevant community representation, as determined by the Minister, and make publicly available immediately thereafter. Unless and until otherwise determined by the Minister, the reference group will be the Fremantle Ports Inner Harbour Community Liaison Group established by Fremantle Ports.

The findings of the inspections, auditing and monitoring will also be reported to Magellan, and DEC Compliance Branch and Regional Offices¹ as detailed in Section 2.2.4.

1.4 PURPOSE OF DOCUMENT

The purpose of this document is to detail how Magellan will implement Condition 10 of Statement 783.

¹ DEC Goldfields, DEC Wheatbelt and DEC Swan

2. IMPLEMENTATION OF CONDITION 10

2.1 APPOINTMENT OF INDEPENDENT ACCREDITED INSPECTOR/AUDITOR

Accreditation of the inspectors and auditors by an appropriate national body provides formal recognition of the competence of a company and its staff to undertake inspections and process audits.

The Independent Auditor and the Independent Inspector will²:

- exercise due care and professional judgement which may be reasonably expected of an independent inspector/auditor accredited by an appropriate national body;
- avoid situations that may lead to conflict of interest;
- demonstrate a sufficient level of independence from Magellan to satisfy a reasonable person that the outcome of the audit will not be influenced by the relationship.

The appointment of the Independent Auditor and Independent Inspector by Magellan must be approved by the Minister for Environment on the advice of the Chief Executive Officer (CEO) of the DEC prior to removing shipping containers of lead carbonate concentrate from the mine-site at any time after 1 January 2009.

2.2 ROLES AND RESPONSIBILITIES

Condition 10-2 requires Magellan to establish and document the detailed roles and responsibilities of the Independent Auditor and the Independent Inspector, in consultation with Department of Environment and Conservation (DEC), Department of Health (DoH) and the Department of Mines and Petroleum (DMP). The DEC, DoH and DMP have been previously consulted during the preparation of this document, which has been reviewed by DEC, DoH and DMP prior to finalisation to comply with this requirement.

The roles and responsibilities of the Independent Auditor and the Independent Inspector are detailed in the following sections.

2.2.1 Auditing

Condition 10-1(1) requires the auditing of processes for the packaging and transport of lead carbonate concentrate from the mine-site through to export from Fremantle Ports. This condition specifically includes the use of top-loading machines for the transport of the shipping containers.

Equipment, management actions and procedures that will be used in the packaging and transport of lead carbonate concentrate from the mine site to export from the Port are set out as auditable elements in Magellan's Health, Hygiene and Environmental Management Program (HHE Management Program) (Strategen 2009a); the monitoring measures are outlined in the HHE Monitoring Program (Strategen 2009b). The Independent Auditor will audit the use of equipment and the implementation of management actions and procedures to fulfil the requirements of Condition 10-1(1). This will

² Adapted from "Contaminated Sites Auditors: Guidelines for Accreditation, Conduct and Reporting"; DEC; August 2006; Section 7.2

include ensuring no equipment other than top-loading machines for the transport of shipping containers is used.

The Independent Auditor will:

1. Carry out an initial process audit from the mine-site through to export from the Port, prior to the commencement of lead carbonate concentrate transport. The audit will assess compliance of the proposed equipment, procedures and processes for packaging and transport of the lead carbonate concentrate with approved management plans and applicable standards. This process audit will include checking that:
 - safety labelling of bulk bags and shipping containers is in accordance with the Australian Dangerous Goods Code and International Maritime Dangerous Goods Code;
 - filled bag closure, cleaning and inspection is in accordance with the HHE Management Program;
 - the chain of custody information for bag and container record keeping is in place in accordance with the HHE Management Program;
 - filled bag storage area separation from the bagging area is in accordance with the HHE Management Program;
 - container loading, closure, sealing, identification and record keeping procedures and documents is in accordance with the provisions of the HHE Management Program;
 - container wash-down procedures are in place in accordance with the HHE Management Program;
 - container handling equipment (specifically the use of top-loading machines) and procedures are in accordance with the HHE Management Program;
 - the procedure for the inspection of container integrity at Fremantle Ports is in accordance with the HHE Management Program;
 - the chain of custody procedures and documents are in place in accordance with the HHE Management Program.
2. Report to Magellan on any non-compliances against the HHE Management Program, HHE Monitoring Program or applicable standards of the proposed equipment, processes or procedures for packaging and transport, and work with Magellan to address any non-compliance issues which are identified.
3. Advise Magellan and the community reference group when satisfied that the proposed procedures and processes are in compliance with the HHE Management Program, HHE Monitoring Program and applicable standards.
4. Audit the procedures and processes at least every at six-monthly intervals, taking into account the results of inspections, monitoring and monitoring.
5. Report to Magellan, the community reference group and DEC Regional Offices³ and Project Implementation Monitoring Section and make publicly available the results of audits and any changes to the procedures and processes which are required to address any shortcomings encountered.

³ DEC Goldfields, DEC Wheatbelt and DEC Swan

A summary of the Independent Auditor's findings will be included in Magellan's Annual Environmental Report, which is submitted to DEC, DMP and Department of Water by 31st March each year for the reporting period 1st January to 31st December.

2.2.2 Inspections

Condition 10-1(2) requires the Independent Inspector to inspect all bags of lead carbonate concentrate for the presence of material containing lead carbonate on the outside of the bags after they are sealed, and prior to and after they are loaded into shipping containers, and to inspect all shipping containers for the presence of material containing lead carbonate on the outside after they are loaded and locked, prior to their removal from the mine-site.

The Independent Inspector will inspect the following to ensure ongoing compliance with the procedures in the HHE Management Program, as follows:

- all filled bags of lead carbonate concentrate are vacuumed and stored in an appropriate licensed dangerous goods storage area;
- inspect all filled bags of lead carbonate concentrate after they are sealed for damage and visible lead carbonate concentrate dust, after they are sealed and prior to and after they are loaded in shipping containers. In the event of the inspector identifying lead carbonate concentrate dust on the exterior of the filled bags, the inspector will instruct the operator to re-vacuum the identified bag(s), and then subsequently re-inspect, prior to allowing the bags to be loaded into the shipping container;
- inspect all shipping containers for damage before loading with filled bags of lead carbonate concentrate;
- inspect all shipping containers after they are loaded, after they are locked and prior to their removal from the mine-site to ensure that:
 - they are safety placarded and numbered;
 - there is no evidence that bags have been damaged during loading;
 - no material is present containing lead carbonate concentrate on the outside of the sealed bags;
 - containers are closed and locked with a numbered steel bolt or bolts;
- inspect all trucks loaded with locked shipping containers containing filled bulk bags of lead carbonate concentrate to ensure they are washed down and that no material containing lead carbonate concentrate is present outside of the container. In the event of the inspector identifying lead carbonate concentrate dust on the exterior of the washed containers and/or trucks, the inspector will instruct the operator to re-wash the container and/or trucks, prior to allowing the truck and shipping container to leave the mine site;
- chain of custody data are recorded and procedures followed.

Inspections will be carried out on all filled bulk bags, shipping containers and trucks leaving the mine site. All original copies of inspections and audits will be kept by the Independent Inspector and a copy provided to Magellan's Occupational Health, Safety and Environment Manager (OHS&E Manager).

2.2.3 Monitoring

Condition 10-1(3) requires the Independent Inspector to carry out random dust monitoring inside shipping containers ('internal dust monitoring'), by selecting containers at random, without the knowledge of the proponent, and placing dust monitors inside those containers prior to their removal from the mine-site, removing the monitors at the port to test for the presence of lead carbonate dust.

Subject to any required improvements that may be identified in the initial process audit referred to in Section 2.2.1, the Independent Inspector will:

- select containers at random, at a rate of approximately 1% of all locked containers for internal dust monitoring;
- maintain strict confidentiality in respect of the identity of containers being monitored until loading of the container has been completed and it is about to be closed;
- install dust monitoring equipment inside selected shipping container(s);
- close and lock the shipping container(s) after installation of the dust monitor(s);
- when the shipping container arrives at Fremantle Ports:
 - have the container opened;
 - remove the dust monitor;
 - inspect for any bags that have been compromised or for the presence of material containing lead carbonate concentrate;
 - have the container closed and locked with a numbered bolt; and
 - have the bolt number recorded on the chain of custody form.
- ensure safe custody of the dust monitor for sample analysis by a NATA accredited laboratory, including chain of custody documentation;
- following receipt of the laboratory results, review the data and provide a report as per the schedule in Table 1.

The monitoring method is further described in the HHE Monitoring Program (Strategen 2009b).

2.2.4 Condition 10-1 (4) and 10-1(5) Reporting

The Independent Auditor and the Independent Inspector will be responsible for immediately reporting any findings to the CEO and the proponent of material containing lead carbonate outside the sealed bags after a shipping container is removed from the mine-site. The Independent Auditor and the Independent Inspector will also report the findings of the inspections, auditing and monitoring to the reference group referred to in Condition 11-1. A summary of the reporting requirements of the accredited inspector/auditor is shown in Table 1. Magellan will ensure that these findings will be made publicly available.

The Independent Auditor and Independent Inspector will provide their reports directly to Magellan, the community reference group and to the CEO as shown in Table 1. If the Independent Inspector observes a non-compliance in regards to the packaging and/or transport procedures, the Magellan OHS&E Manager and the registered Mine Manager will be immediately alerted. The non-compliance will be treated and reported as an Environmental Incident as per the HHE Management Program.

Table 1 Summary of reporting requirements of the Independent Auditor

Relevant Ministerial condition	Report description	Frequency of reporting	Distribution of report
10-1(1)	Audit report for the packaging and transport of lead carbonate concentrate	Prior to removing shipping containers of lead carbonate concentrate from the mine-site; and At least six monthly thereafter	Magellan Community Reference Group DEC (including Regional Offices ¹ and Project Implementation Monitoring Section) Website
10-1(2)	Inspection report of all bulk bags and shipping containers	Immediately - whenever an anomaly is encountered	Magellan Community Reference Group CEO of DEC. DEC (including Regional Offices and Project Implementation Monitoring Section)
		Monthly	Magellan Community Reference Group DEC (including Regional Offices and Project Implementation Monitoring Section) Website
10-1(3)	Monitoring report of random dust monitoring results inside shipping containers	Whenever an anomaly is encountered	Magellan Community Reference Group DEC (including Regional Offices and Project Implementation Monitoring Section) Website
		Monthly	Magellan Community Reference Group DEC (including Regional Offices and Project Implementation Monitoring Section) Website

¹DEC Goldfields, DEC Wheatbelt and DEC Swan

A summary of the reports shown in Table 1 will be provided by Magellan in its Annual Environmental Report to the DEC. Magellan will also provide DEC, DoH and DMP and other stakeholders with a link to their website (www.magellanmetals.com.au) which will contain all the above-mentioned reports.

The auditor engaged under Condition 10 will report the findings of the inspections, auditing and monitoring, in the first instance, to the community reference group. All of the above mentioned reports will be also publically available on the Magellan website as described above.

The Magellan website will be updated within seven business days of the abovementioned reports being made available to Magellan. The abovementioned reports will be available on the Magellan website for the life of the project. If the abovementioned reports are no longer available on the Magellan website, Magellan will make the report available on request.

2.2.5 Training

Both the Independent Auditor and Independent Inspector will be required to complete specific lead awareness training during induction to the mine site. It is a Magellan requirement that all personnel, visitors and contractors complete the induction process. This includes a general site induction and a lead awareness program that details the biological effects of lead, the exposure pathways and preventive strategies. This training will include a competency assessment.

3. REFERENCES

Department of Environment and Conservation (DEC) 2006, *Contaminated Sites Auditors: Guidelines for Accreditation, Conduct and Reporting*, DEC, Perth, August 2006

Strategen 2009a, *Health, Hygiene and Environment Management Program* prepared for Magellan Metals Pty Ltd, April 2009.

Strategen 2009b, *Health, Hygiene and Environment Monitoring Program* prepared for Magellan Metals Pty Ltd, June 2009.