CORRECTIVE ACTION PLAN

AUSTRALIAN GOLD REAGENTS PTY LTD
SODIUM CYANIDE PRODUCTION FACILITY
CSBP KWINANA WORKS

ICMI CYANIDE PRODUCTION
VERIFICATION PROTOCOL
RECERTIFICATION AUDIT
SEPTEMBER 2010

AGR Pty Ltd.
Production Facility

[Signature] 6 January 2011
# APPROVAL & CHANGE HISTORY

## Approval and Change History

<table>
<thead>
<tr>
<th>Rev</th>
<th>Description</th>
<th>Date</th>
<th>Approval</th>
<th>By</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>MSA</td>
<td>MSA</td>
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<tr>
<td>A</td>
<td>Issued for Concurrence</td>
<td>24 September 2010</td>
<td>MS</td>
<td>SAZ</td>
</tr>
<tr>
<td>0</td>
<td>Updated to address ICMI Review Comments and Issued for Information</td>
<td>18 November 2010</td>
<td>MS</td>
<td>SAZ</td>
</tr>
<tr>
<td>1</td>
<td>Updated to reflect Corrective Action follow up findings</td>
<td>31 December 2010</td>
<td>MS</td>
<td>SAZ</td>
</tr>
<tr>
<td>2</td>
<td>Updated to reflect verification of AGRs implementation of corrective actions</td>
<td>06 January 2011</td>
<td>MS</td>
<td>SAZ</td>
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</tbody>
</table>

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AGR Pty Ltd.  
Production Facility  
Signature of Lead Auditor  
6 January 2011
<table>
<thead>
<tr>
<th>CA 01</th>
<th>CORRECTIVE ACTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERIFICATION PROTOCOL REQUIREMENT</td>
<td></td>
</tr>
<tr>
<td>1.1.8 Are spill prevention or containment measures provided for all cyanide solution pipelines?</td>
<td></td>
</tr>
<tr>
<td>AUDIT FINDING SUMMARY</td>
<td></td>
</tr>
<tr>
<td>The vessels, piping and associated instrumentation legs on the Waste Gas Knock Out Pots for the John Zinc (1168V3601) and Maxitherm (1170 S3003) do not have spill prevention or containment measures, yet these vessels and associated piping contain weak cyanide solution.</td>
<td></td>
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<tr>
<td>AGREED CORRECTIVE ACTION</td>
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<tr>
<td>AGR to review the situation and assess the risk posed and determine to what extent secondary containment is required.</td>
<td></td>
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<tr>
<td>EVIDENCE REQUIRED</td>
<td></td>
</tr>
<tr>
<td>- Copy of risk assessment conducted.</td>
<td></td>
</tr>
<tr>
<td>- Copy of Work Order or project request(s) to initiate any spill prevention measures.</td>
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<tr>
<td>- Evidence of completion of the spill prevention measures.</td>
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<tr>
<td>AGREED COMPLETION DATE</td>
<td></td>
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<tr>
<td>31 December 2010</td>
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<tr>
<td>REVIEW OF PRESENTED EVIDENCE</td>
<td></td>
</tr>
<tr>
<td>Sighted risk assessment document dated 4 November 2010 identifying the risk of cyanide spill and related consequences in No.1 and 2 Cyanide Production Plant and Solid Cyanide Plant</td>
<td></td>
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<tr>
<td>Confirmed that spill prevention measures on the Waste Gas Knock Out Pots for the John Zinc (1168V3601) and Maxitherm (1170 S3003) had been implemented. Sighted the containment trays for the above vessels, which are designed to capture any spill from the vessels and associated pipe work</td>
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<tr>
<td>Sighted similar containment trays on the return manifolds from the John Zinc and Maxitherm Knock Out Pots</td>
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<tr>
<td>Confirmed by observation that the instrument legs on the Knock Out Pots had the drain valves plugged to prevent any accidental spill due to their inadvertent operation.</td>
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<tr>
<td>Sighted Work Orders 912072 and 912044 for the above remedial work.</td>
<td></td>
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<tr>
<td>It was confirmed that AGR had fully implemented item CA 01 of the Corrective Action Plan and is in Full Compliance to Protocol Item 1.1.8.</td>
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<tr>
<td>CORRECTIVE ACTION CLOSED DATE</td>
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<td>06 January 2011</td>
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AGR Pty Ltd.  
Production Facility

Signature of Lead Auditor  
6 January 2011
### CORRECTIVE ACTION PLAN

**VERIFICATION PROTOCOL REQUIREMENT**

1.3.1 Does the facility conduct routine inspections of tanks, valves, pipelines, containments and other cyanide production and storage facilities, including:

   a) Tanks holding cyanide solutions for structural integrity and signs of corrosion and leakage?
   b) Secondary containments for their integrity, the presence of fluids and their available capacity, and to ensure that any drains are closed and, if necessary, locked, to prevent accidental release to the environment?
   c) Pipelines, pumps, and valves for deterioration and leakage?

### AUDIT FINDING SUMMARY

Planned inspections for secondary containment trays and sleeves on sodium cyanide pipelines had not been carried out over the past three years as no inspection system was in place.

A PM Routine was created at the time of the audit for a 6 monthly inspection period with the first inspection due March 2011.

The PM Routine did not specify what type of inspection was to be carried out and how the integrity of the trays and sleeves are to be confirmed.

### AGREED CORRECTIVE ACTION

AGR to review the situation, assess the risk posed and determine what inspections and/or tests are required to assure the continued integrity of the secondary containment.

Revise the PM Routine to include the inspection and/or testing methodology.

Carry out the inspections and/or testing and report on findings.

### EVIDENCE REQUIRED

- Copy of the revised PM Routine describing the inspection and/or testing methods to be undertaken.
- Copy of the inspection / testing results or report.
- Copy of any corrective actions initiated as a result of the inspection.

### AGREED COMPLETION DATE

31 December 2010

### REVIEW OF PRESENTED EVIDENCE

Sighted the revised Work Order 91164 for the PM routine “Inspect all double containments for leaks, cracks, damage and integrity”. This check includes the taking of photographic evidence of any deficiencies observed to assist in formulating corrective action.

Sighted photographic record of inspection resulting from above Work Order in G:\Common.

As result of the inspection five more Work Orders were raised, WO 911930,911929,912072,912047 and 912044 for corrective action on secondary containment.

It was confirmed that AGR had fully implemented item CA 02 of the Corrective Action Plan and is in Full Compliance to Protocol Item 1.3.1

### CORRECTIVE ACTION CLOSED DATE

06 January 2011

AGR Pty Ltd.
Production Facility

Signature of Lead Auditor

6 January 2011
## CORRECTIVE ACTION PLAN

### VERIFICATION PROTOCOL REQUIREMENT

**2.1.4** Does the facility use monitoring devices to confirm that controls are adequate to limit worker exposure to hydrogen cyanide gas and sodium, calcium or potassium cyanide dust to 4.7 ppm (5mg/m3) or less, as cyanide?

### AUDIT FINDING SUMMARY

Portable and personal gas detection equipment was available in the control room. Fixed gas detectors are also installed in the solid sodium cyanide plant.

However, the fixed, portable and personal gas detectors which monitor HCN exposure are set to alarm at 5.0 ppm HCN, while the production practice specifies a value of 4.7 ppm.

### AGREED CORRECTIVE ACTION

AGR to reset the alarm levels on the fixed, portable and personal monitors at 4.7 ppm HCN.

### EVIDENCE REQUIRED

- Copy of the test, calibration or completed Work Orders confirming that the alarm points for each fixed, portable and personal gas detector have been set to 4.7 ppm HCN.

### AGREED COMPLETION DATE

31 December 2010

### REVIEW OF PRESENTED EVIDENCE

For the seven fixed HCN monitors, sighted the print out from the alarm block in the Distributed Control System confirming that the alarm point had been set at 4.5 ppm HCN. Requested the Solids Plant Operator to demonstrate the alarm settings in the alarm block. The operator was able to do this and the auditor visually confirmed the settings.

Confirmed the alarm value set in the "Toxipro" personal gas detectors by placing a random unit on its docking station and interrogated its settings. It was confirmed that it had been set to alarm at 4.5 ppm HCN gas as reported to the auditor by the Senior Health Advisor.

Confirmed that the ITX portable gas detectors have a STEL and TWA alarm setting for HCN gas of 4.0 ppm. This was confirmed by interview with the Senior Health Advisor and Safety & Hygiene Advisor who supplied documentary evidence of the settings.

It was confirmed that AGR had fully implemented item CA 03 of the Corrective Action Plan and is Full Compliance to Protocol Item 2.1.4.

### CORRECTIVE ACTION CLOSED DATE

06 January 2011

AGR Pty Ltd. 
Production Facility 
6 January 2011