

## Standard 1.19

# Incident Reporting, Notification and Investigation

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## **1 Purpose**

To ensure that Security, Safety, Health, Environment and Community Relations (SSHEC) hazards and incidents at Ok Tedi Mining Limited (OTML) are properly reported, investigated and managed, and that preventative actions are identified, implemented and verified to prevent recurrence.

This Standard details the requirements for the reporting, classification, investigation and analysis of an incident to ensure that:

- All incidents are reported and classified in a consistent way and in the required time frame,
- The most credible outcome associated with the incident is assessed and that this determines the appropriate level of investigation/analysis to be conducted,
- All the required information regarding the incident is captured and recorded, and
- Incidents are properly investigated, and actions put into place to prevent reoccurrence, leading to continual improvement of SSHEC performance.

## **2 Scope**

This standard applies to SSHEC incidents and events, including those involving OTML employees, contractors and consultants engaged in OTML work, in all areas where OTML operates, both within and outside of the OTML mining lease. The types of incidents or events covered by this standard are those resulting in:

- Injury or Illness,
- Environmental impact,
- Community impact,
- Equipment Damage/Process Loss, and/or
- A 'near miss'.

The Community Relations Department operates a separate community grievance system. Incidents identified from that system are tracked in that system to prevent duplication.

## **3 Requirements**

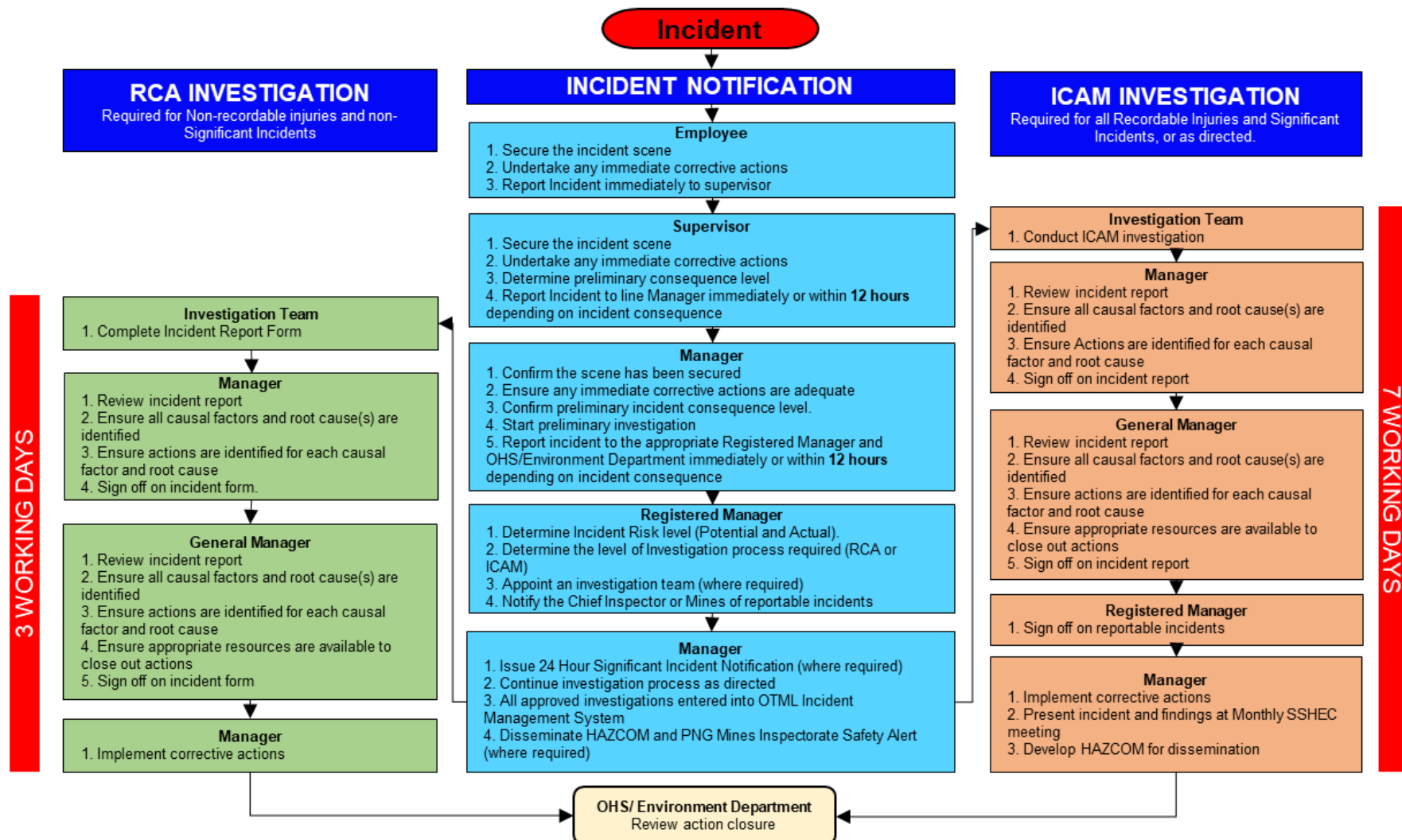
### **3.1 Initial response**

- The most senior person at the scene shall assess how the incident will be managed and will take charge, if necessary, until relieved by a more senior manager or the Emergency Response Team.
- Action shall be taken to contain the effects of the incident and/or make the plant, equipment, or location where the incident occurred, safe.
- Emergency situations shall be managed in accordance with the Major Incident Management Plan / Site Incident Management Plan

- The site of serious incidents shall not be disturbed unless it is for the purpose of saving life or preventing injury, or until relevant details have been obtained in accordance with the relevant legislation and approved by the inspector.
- Approval by the relevant manager and Investigation Team Leader has been given to resume work.

### 3.2 Incident Notification and Investigation

- Notification of an incident to the responsible supervisor shall be as soon as reasonably practicable and within the shift of occurrence.
- Incident severity shall be assessed according to the actual or potential consequences. The higher of the actual or potential consequences shall be used.
- When assessing incident severity, input shall be sought from the Health and Safety departments for injuries and health related incidents, the Environmental Department for environmental impacts, Community Relations Department for community impacts, and the area maintenance department for property damage.
- Where incidents have impacts across multiple aspects then all relevant SSHEC departments are to be consulted.
- Those incidents considered reportable to the MRA shall be reported verbally ASAP to the department General Manager and incident area Registered Manager.
- The Registered Manager shall confirm the incident consequence level using the matrix below. The process flow for incident reporting is given in Figure 1 below:



**Figure 1 Incident Notification and Investigation Process**

### 3.3 Accountabilities

The general accountabilities for employees when an SSHEC incident occurs are:

- |                   |  |
|-------------------|--|
| <b>Employee</b>   | <ul style="list-style-type: none"> <li>▪ Secure the incident scene (where possible)</li> <li>▪ Undertake any immediate corrective actions to contain the incident</li> <li>▪ Report incident immediately to Supervisor</li> </ul>  |
| <b>Supervisor</b> | <ul style="list-style-type: none"> <li>▪ Secure the incident scene</li> <li>▪ Undertake any immediate corrective actions</li> <li>▪ Determine preliminary incident consequence level (refer to Table 1)</li> <li>▪ Report incident to line Manager immediately (refer to Figure 1 and Table 2)</li> </ul>  |
| <b>Manager</b>    | <ul style="list-style-type: none"> <li>▪ Confirm the scene has been secured</li> <li>▪ Ensure any immediate corrective actions are adequate</li> <li>▪ Start preliminary investigation</li> <li>▪ Confirm preliminary incident consequence level (refer to Table 1)</li> <li>▪ Report incident to the appropriate Registered Manager and either the OHS or Environment Department based upon the incident type immediately or within 12 hours depending on incident consequence level (refer to Figure 1 and Table 2)</li> <li>▪ Issue 24 Hour Incident Notification for Recordable Injuries and Significant Incidents (where directed by Registered Manager)</li> <li>▪ Ensure the required level of investigation is undertaken based upon the consequence level of the incident or as directed by the Registered Mine Manager</li> <li>▪ Review incident report</li> <li>▪ Ensure all causal factors and root cause(s) are identified and recorded in the OTML incident management system</li> <li>▪ Ensure actions are identified for each causal factor and root cause and recorded in the OTML incident management system</li> <li>▪ Sign off on incident report and submit to General Manager for approval</li> <li>▪ Implement corrective actions</li> <li>▪ Present incident and findings for Recordable and Significant incidents at Monthly Safety, Security, Health, Environment and Community (SSHEC) meeting</li> <li>▪ Develop HAZCOM for dissemination (where required)</li> <li>▪ Forward final reports to General Manager for sign off</li> <li>▪ Upload final and signed off documentation onto the OTML1 Incident Management System</li> <li>▪ Ensure medical clearance received for injured employees prior to returning to work</li> </ul> |

## General Manager

- Review incident reports
- Confirm preliminary incident consequence level
- Ensure all causal factors and root cause(s) are identified
- Ensure actions are identified for each causal factor and root cause(s)
- Ensure appropriate resources are available to close out actions
- Sign off on all incident reports
- Forward reportable incident reports and significant/high consequence incidents reports to the Registered Manager for sign off
- Return incident reports to the Manager for action

## Registered Manager

- Confirm incident consequence level using the consequence table (Table 1)
- Confirm the level of Investigation process required based on the consequence level of the incident (RCA or ICAM)
- Appoint an investigation team (where required)
- Notify the Chief Inspector of Mines of reportable incidents
  - Form 14 (Report of accident causing bodily injury)
  - Form 33 (Report of accident without bodily injury)
- Notify CEPA of significant environmental incidents.
- Sign off on all reportable and significant/high potential incident reports and return to General Manager

## OHS/ Environment Department/ CR

- Review action closure
- Disseminate HAZCOM and PNG Mine's Inspectorate Safety Alert (where required) via OTML HelpDesk

## Medical Team

- Provide medical details for Form 14 in the event of an injury
- Provide return to work plan.

Table 1 Consequence Table

Level	Safety and Health	Environmental	Community and Government	Reputation	Financial	Organisational Effectiveness	Compliance
1	Minor First Aid / First Aid Treatment / Minor medical treatment  Reversible health effects of little concern, no known or suspected adverse health effects.	Very low environmental impact (e.g. confined to small area, remediation typically within a shift).	Isolated complaint. Village Chief enquiry. Small numbers of sporadic complaints.	Corporate image not affected, or verbal or written complaint dealt internally	No effect on Work Schedule, Product and Quality  Less than \$50,000 loss	Isolated individual or team dissatisfaction.  Lack of skilled teams	Minor technical / legal compliance issue that is dealt with on site.  Incident requires reporting in routine internal incident report system.  Minor breach of internal standards
2	Medical Treatment  Health impact requiring medical treatment/intervention, not permanent  Reversible health effects of concern.	Low environmental impact confined within lease boundary (e.g. typically remediation within one week) or,  Very low environmental impact offsite.	Repeated complaints from individual households in one village in the local community.  District Government enquiry.  Assistance required from District Government.	Corporate image reduced within District with local adverse publicity.	Minimal effect on Work Schedule, Product and Quality  \$50,000 - \$500,000 loss	Widespread dissatisfaction.  Adhoc loss of key individuals or expertise.	Technical / legal compliance issue which may attract a low level administrative response from regulator.  Continuing occurrences of minor breaches.  Incident requires reporting in routine reports (e.g. monthly) and to OTML corporate.  Moderate breach of internal standards
3	Lost time injury more than one month.  Chronic health effects causing illness or partial impact on body function	Medium environmental impact confined within lease boundary (e.g. typically remediation within one month) or,  Low environmental impact offsite.	Serious rate of complaints from a village in the local community.  Concerns raised by the Provincial Government.  Assistance required from the Provincial Government.	Corporate image reduced within the Province with local adverse publicity.	Serious effect on Work Schedule, Product and Quality  Production halted for 1 day to 1 week  \$500,000 - \$5,000,000 loss	Major loss of productivity.  Persistent loss of key individuals or key expertise	Serious breach of regulation.  Incident requires immediate (within 48 hours) notification to Government and OTML Corporate).  Major breach of internal standards.
4	Permanent disability or single fatality.  Long term chronic health effects or illness to workers, major illness or impact on body function	Major environmental impact confined within lease boundary (e.g. typically remediation within one year) or,  Major environmental impact offsite.	Increasing rate of complaints, repeated complaints from a number of villages in the local community.  Concerns and response required raised by the Provincial and or National government.  Assistance required from the Provincial and/or National Government.  National Media attention.	Corporate image reduced within host country due to significant adverse event	Major effect on Work Schedule, Product and Quality  1 week to 1 month production suspended  \$5,000,000 to \$20,000,000 loss	Loss or lack of multiple key skills or individuals across a department.	Major breach of regulation resulting in investigation by regulator.  Prosecution, penalties or other action likely.
5	Multiple fatalities.  Life threatening or permanent disabling illness. Long term chronic health effects to workers.	Prolonged severe offsite environmental impact.	High level of concern or interest from all villages in the local and surrounding community.  National and/or international media interest.	Corporate image reduced world-wide due to publicity of significant adverse event	Project suspended for more than 1 month –  More than \$20,000,000 lost revenue.	Loss or lack of multiple key skills or individuals across the site.  Prolonged strike (> 1 month).	Operation suspended, licenses revoked.

Note: This is the same table as in the ISM-GDL-1.02 Risk and Opportunity Management Guideline and any edits here must be mirrored there.



**Table 2 Incident Reporting and Investigation Requirements**

Incident Consequence Level	Internal Communication	External Reporting	Investigation Requirements
<b>Actual 1</b>	Email		Standard OTML Incident RCA
<b>Actual 2-5 (Safety)</b>	Verbal	Report to MRA within 24 Hours Accident Causing Bodily Injury (Form 14)	ICAM
<b>Potential 4+ (Safety)</b>	24 Hour Significant Incident Notification	Report to MRA within 24 Hours Accident without bodily Injury (Form 33)	ICAM
<b>Actual 3-5 (Environment)</b>	Email & Verbal	Report to CEPA Director within 24 hours	ICAM
<b>Potential 4+ (Environment)</b>	Email & Verbal	Report to CEPA Director within 24 hours	ICAM
<b>Complex investigations</b>			ICAM

### 3.4 Reporting Requirements

- Incidents are to be reported in a manner consistent with incident reporting requirements in Table 2.
- For recordable injuries of actual consequence of 2 and above, a Form 14 is required to be issued to Mineral Resource Authority within 24 hours.
- For Significant Incidents of potential consequence of 4 and above, a Form 33 is required to be issued to Mineral Resource Authority within 24 hours.

### 3.5 Investigation Requirements

- With reference to Table 2, the Registered Manager shall confirm the type of investigation required and appoint the lead investigator and team as appropriate.
- Types of investigation are:
  - ICAM** – Used for recordable injuries of actual consequence 2 and above, potential consequence incidents/near misses of Level 4 and above and/or complex investigations
  - RCA** – Root Cause Analysis which is the Standard OTML Incident Report, used for safety related incidents of consequence 1.
- The Registered Manager may choose to recommend a RCA investigation for high consequence non-complex incidents.
- A lead investigator will assign duties, direct the investigation, prepare the report and brief management. Depending on the complexity of the incident, they may be supported by:



- An OHS and or Environment representative.
- A person who has detailed knowledge of the work process under investigation
- People involved in an incident or investigation shall not take leave without approval from the lead investigator (ICAM or RCA).

### 3.6 Time Frames for Completion

The following time limitations apply for Significant Incident (SI) investigations:

By end of shift:

- Incident reported as soon as practical to Supervisor.
- Incident Management Form front page completed/registered in INX.
- Supervisor submits copy of SI incident notification.

Within 24 Hours:

- General Manager informs OTML MD / CEO notification as required.
- Where identified based on the event Registered Manager notifies MRA.
- Supervisor completes Incident Management Form.
- Supervisor submits completed Incident Management Form to Responsible OTML Manager.

Within 7 Days:

- Responsible Manager assembles Incident Investigation Team.
- SI Investigation completed.
- SI Investigation Team submits completed Incident Management Form and SPI Investigation Form to Responsible OTML General Manager and Department Manager.
- Responsible Manager and General Manager review completed SPI investigation.
- General Manager submits completed Incident Management Form and SI Investigation Form to Site Safety Person for OHS incidents, site Environmental Person for environmental incidents and/or Community Relations Person for community incidents.
- Where incidents have impacts in more than one area then all relevant SSHEC persons need to be consulted.
- Registered Manager or Department General Manager communicates Significant Incident Summary.

### 3.7 Actions

- The action plan(s) shall include:
  - Detailed recommendations to address the root cause(s) and causal factors.
  - Timelines.
  - Roles accountable for each action.
- Actions determined by the incident investigation process are to be managed as per the Corrective & Preventive Action Standard SSHEC-IMS-STD-1.20.
- Actions to be entered into the INX action tracking system for tracking and close out.

### 3.8 Incident Review and Closure

- ICAM's and high consequence incidents are to be presented to the Executive Management team at the Monthly SSHEC meeting.
- Presentations are to be prepared using the Significant Incident Presentation template.

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*(Presentations will need to be attended by all main parties involved in the incident as directed by the General Manager and/or Registered Manager)*

- The OTML Helpdesk shall distribute the HAZCOM to the business.

### 3.9 Periodic Reporting

- Incident data shall be analysed and reported weekly, monthly and quarterly by OHS and Environment Departments to OTML management.
- Incident data shall be analysed and reported monthly and quarterly to the Chief Inspector of Mines or Conservation and Environment Protection Authority (CEPA).
- Progress on corrective and preventive actions and selected leading indicators shall be reported quarterly by OHS and Environment Departments to senior management.

## 4 References

Description	Author
SSHEC-IMS-STD-1.20 Corrective & Preventive Action	OTML
SSHEC-IMS-GDL-1.02 Risk & Opportunity Management Guideline	OTML
Major Incident Management Plan / Incident Management Plan	OTML
OTML Incident Investigation Template (RCA)	OTML
24 Hour Incident Notification Form	OTML
Accident without bodily Injury (Form 33)	MRA
Accident Causing Bodily Injury (Form 14)	MRA
HAZCOM Template	OTML
ISO 14001:2015 Environment Management Systems	ISO
ISO 45001:2018 Occupational health and safety management systems	ISO

## 5 Document Control History

Version	Date	Description	By	Approved By
V02	22/02/2013	New Version	G. Lee	J. Innes, N. Foley, N. Parker.
V03	14/08/2021	Reviewed by SSHEC and ELT and updated	J. Raynes, A. Ila, P. Pank	Musje Werror

## 6 Glossary of Terms

<b>Consequence</b>	A <b>consequence</b> is the outcome of an event and has an effect on objectives. A single event can generate a range of consequences which can have both positive and negative effects on objectives. Initial consequences can also escalate through knock-on effects
<b>CEPA</b>	Conservation and Environment Protection Authority, Papua New Guinea
<b>Immediately</b>	Within the hour or as soon as possible.
<b>Incident</b>	An unplanned event that results in or has the potential to result in injury to or health of a person, damage to equipment or environment, and/or impact to the community, including near misses.

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<b>Lost Time Injury (LTI)</b>	An injury or occupational illness that results in a fatality, permanent disability, or time lost of one complete shift or day or more, as defined on the current medical certificate. Employee /contractor being unable to attend work on the next calendar day after the day of the injury. If a suitably qualified medical professional advises that the injured person is unable to attend work on the next calendar day after the injury, regardless of the injured person's next rostered shift, a lost time injury is deemed to have occurred.
<b>Manager</b>	This is the person nominated by OTML as a Manager under the organisational structure and the most senior position with a firm contracting work to OTML.
<b>Near Miss</b>	Is an unplanned event that did not result in injury, illness, damage or harm to the environment or community – but had the potential to do so.
<b>Root Cause Analysis (RCA)</b>	Root Cause Analysis – OTML Incident Form
<b>Registered Manager/s</b>	<ol style="list-style-type: none"> <li>1. The person appointed by the Managing Director who shall be responsible for the control, management and direction of the mine or works under the provision of the PNG Mining (Safety) Act 1977 and Mining (Safety) Regulation 1935. OTML have two Registered Managers:</li> <li>2. GM Mining and Registered Manager Mine, Underground, Treatment plant, and gravel pits.</li> </ol> <p>GM Process and Registered Manager Kiunga / Bige, OK Menga Hydro, Pipelines, and Tabubil</p>
<b>Reportable Incidents</b>	<p>Reportable incidents are those that require reporting to the PNG Minerals Resource Authority (MPR):</p> <ol style="list-style-type: none"> <li>1. Loss of life – (site to be left undisturbed where practical to do so)</li> <li>2. Fracture of the skull or of a limb or other serious bodily injury - (site to be left undisturbed where practical to do so)</li> <li>3. An injury resulting in a Lost Time Injury (LTI) likely to last 14 days or more</li> <li>4. Whether causing bodily injury or not to a person, any incident involving: <ol style="list-style-type: none"> <li>a) the explosion of gas or an explosive or an explosion due to electricity</li> <li>b) extensive caving or subsidence</li> <li>c) major flooding</li> <li>d) an outbreak or occurrence of fire in the areas of work</li> </ol> </li> <li>5. Every accident arising out of the operation of any electrical apparatus and causing bodily injury (including shock or burn).</li> </ol> <p>Incidents and SI events to be reported to the Minerals Resource Authority (MRA) within 24 hours of the incident, through the Registered Manager for the area in which the incident occurred.</p>
<b>Restricted Work Injury (RWI)</b>	A Restricted Work Injury (RWI) is a work-related injury which results in the employee/contractor being unable to perform one or more of their routine functions for a full working day, from the day after the injury occurred. An RWI should be certified by advice from a suitably qualified health care provider.
<b>Significant incident (SI)</b>	Significant incidents any incident or near miss that could, in other circumstances, have realistically resulted in one or more fatalities, or a high consequence environmental or community relations issue.