



## Environmental Incident Classification Criteria

Event type	Extreme	Incident Details Reported to Corporate Office <sup>1</sup>		Number of Incidents Reported to Corporate Office	
		Major	High	Moderate	Minor
<p><b>1. Loss of containment</b></p> <p><i>Includes unplanned or unauthorized release<sup>2</sup> of process water, saline water, hydrocarbons, reagents, wastewater or tailings material outside of designated containment areas.</i></p> <p><b>Sub-categories:</b></p> <p>a) Process water spill b) Hydrocarbon spill c) Tailings spill d) Other spills, e.g. reagents, saline water, sewage spill.</p>	<p>Release where the volume and concentration of contaminants result in an Extreme classification in Table 1.</p>	<p>Release:</p> <ul style="list-style-type: none"> <li>where the volume and concentration of contaminants result in a Major classification in Table 1;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>that causes the loss of priority flora<sup>4</sup> populations;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>becomes potentially detrimental to human health, through, for example, contamination of the human food chain;</li> </ul>	<p>Release:</p> <ul style="list-style-type: none"> <li>on unsecured AGA-managed property where supernatant water exceeds 50mg/l of WAD CN;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>where the volume and concentration of contaminants<sup>3</sup> result in a High classification in Table 1;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>that causes the loss of native vegetation including incidental priority flora<sup>4</sup>;</li> </ul>	<p>Release:</p> <ul style="list-style-type: none"> <li>on unsecured AGA-managed property where supernatant water does not exceed 50mg/l of WAD CN;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>where the volume and concentration of contaminants<sup>2</sup> result in a Moderate classification in Table 1;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>that impacts on undisturbed soils and native vegetation but does not affect priority flora species<sup>4</sup>.</li> </ul>	<p>Release:</p> <ul style="list-style-type: none"> <li>outside of designated containment areas and inside of AGA access-controlled operational areas where the volume is greater than 20L;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>where the volume and concentration of contaminants result in a Minor classification in Table 1.</li> </ul>
<p><b>2. Unauthorised land disturbance</b></p> <p><i>Includes land clearance and landslides caused by AGA activities.</i></p>	<p>Unauthorised land disturbance that has widespread ecosystem and human socio-economic impacts.</p>	<p>Unauthorised land disturbance that:</p> <ul style="list-style-type: none"> <li>leads to the loss of priority flora<sup>4</sup> threatening population survival;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>requires replacement of growth medium resources (topsoil).</li> </ul>	<p>Unauthorised land disturbance that:</p> <ul style="list-style-type: none"> <li>leads to the loss of priority flora species<sup>4</sup>;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>requires in-situ remediation of growth medium resources.</li> </ul>	<p>Unauthorised land disturbance that:</p> <ul style="list-style-type: none"> <li>impacts an environmentally sensitive area but does not lead to the loss of priority flora<sup>4</sup>;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>causes a reversible impact on growth medium resources.</li> </ul>	<p>Unauthorised land disturbance that;</p> <ul style="list-style-type: none"> <li>impacts native vegetation but does not impact environmentally sensitive areas.</li> </ul>

<sup>1</sup> Reportable incidents as a result of cyanide are also reportable to the ICMI via the Corporate Environmental Office.

<sup>2</sup> If a continuous discharge occurs due to the same cause, it is classed as a single event.

<sup>3</sup> Excluding WAD cyanide.

<sup>4</sup> For the purposes of this standard, priority species are Critically Endangered or Endangered species on the IUCN Red List ([www.iucnredlist.org](http://www.iucnredlist.org)) or those so designated by an appropriate government agency.



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<b>3. Unauthorised waste disposal</b>  <i>Including solids from tailings spillage events</i>	Disposal of waste that causes measurable and widespread human health and/or ecosystem impacts, resulting in revocation of the site's operational license.	Disposal of waste outside of a designated area leading to: <ul style="list-style-type: none"> <li>irreversible impacts on soil quality requiring all growth medium (topsoil) replacement over an area &gt;2500m<sup>2</sup></li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>impacts on native vegetation with a loss of priority flora population<sup>4</sup> over an area &lt;10 hectares.</li> </ul>	Disposal of waste outside of a designated area leading to: <ul style="list-style-type: none"> <li>soil quality impacts that require intensive in-situ soil remediation over an area &gt;2500m<sup>2</sup>;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>impacts on native vegetation including priority flora<sup>4</sup> over an area &lt;1 hectare.</li> </ul>	Disposal of waste outside of a designated area leading to: <ul style="list-style-type: none"> <li>soil quality impacts over an area &lt;2500m<sup>2</sup> that recovers after waste removal and minor surface remediation.</li> </ul>	Disposal of waste outside of a designated area up to 1000 m <sup>2</sup> that does not alter soil quality.
<b>4. Unauthorised or unplanned air emissions (including dust and gases)</b>	Unauthorised air emission that causes measurable and widespread human health and/or ecosystem impacts, resulting in revocation of the site's operational license.	Unauthorised air emission event that exceeds all applicable source <sup>6,7</sup> and ambient air quality standards <sup>7</sup> : <ul style="list-style-type: none"> <li>resulting in regulatory suspension of related activities</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>resulting in national media and NGO coverage of public health grievances.</li> </ul>	Unauthorised air emission event that exceeds all applicable source <sup>6,7</sup> and ambient air quality standards <sup>7</sup> and results in public health complaints being covered by local media and receives regulatory attention.	Unauthorised air emission event that exceeds applicable point <sup>5</sup> source and/or fugitive <sup>6</sup> source air quality standards <sup>7</sup> but not exceed ambient air quality standards <sup>7</sup> but results in complaints from local communities.	Unauthorised air emission event that exceeds applicable point <sup>5</sup> source or fugitive <sup>6</sup> source air quality standards <sup>7</sup> but does not result in complaints from local communities.
<b>5. Fauna injury and deaths</b>  Includes fauna events at tailings dams.	Extinction of priority fauna <sup>4</sup> local populations.	AGA activities that lead to: <ul style="list-style-type: none"> <li>multiple fauna deaths over a widespread geographical area from a single event;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>multiple deaths of a priority species<sup>4</sup> impacting on local populations.</li> </ul>	AGA activities that lead to: <ul style="list-style-type: none"> <li>multiple fauna deaths and impacting on local fauna populations;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>incidental deaths of priority species<sup>4</sup>.</li> </ul>	AGA activities that lead to multiple fauna deaths without displacing local populations and with no loss of priority species <sup>4</sup> .	AGA activities that lead to isolated injuries or death of fauna that are incidental to local populations.

<sup>5</sup> Point sources are single, identifiable sources of air emission i.e. stacks, vents or chimneys from fixed infrastructure such as power plants, incinerators, boilers or kilns.

<sup>6</sup> Fugitive sources are dispersed emissions generated from operational areas i.e. dust off unpaved roads, stockpiles, tailings facilities and ore-handling equipment.

<sup>7</sup> These include applicable host country regulator standards or adopted air quality standards e.g. IFC/WHO Ambient Air Quality Guidelines.



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<b>6. Incident remediation cost</b>	Greater than US\$50 million.	Greater than US\$10 million but less than US\$50 million.	Greater than US\$1 million but less than US\$10 million.	Greater than US\$100,000 but less than US\$1 million.	Greater than US\$10,000 but less than US\$100,000.
<b>7. Legal and regulatory non-compliance</b>  Includes exceedance and violation of permit conditions.	An environmental non-compliance that results in operation's environmental licence being revoked.	An environmental non-compliance that: <ul style="list-style-type: none"> <li>• results in a temporary suspension of the operation's environmental license.</li> </ul>	Incident of non-compliance to regulatory conditions: <ul style="list-style-type: none"> <li>• resulting in a written threat to temporarily suspend the operation's environmental license.</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>• resulting in a fine of greater than US\$100,000.</li> </ul>	Incident of non-compliance which: <ul style="list-style-type: none"> <li>• must be reported to the regulatory authorities;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>• results in a fine greater than US\$50,000.</li> </ul>	A fine greater than US\$10,000.



**Table 1. Release Classification Matrix**

Concentration					
Greater than 10x Limit	High	Major	Extreme	Extreme	Extreme
Between 5x and 10x Limit	High	Major	Major	Major	Extreme
Between 1x and 5x Limit	High	High	High	High	Major
Between ¾ x and 1X Limit	Moderate	Moderate	Moderate	Moderate	High
Between ½ and ¾ of Limit	Minor	Minor	Minor	Moderate	Moderate
Less than ½ of Limit	Minor	Minor	Minor	Minor	Minor
	0.2 m <sup>3</sup> < Vol ≤ 500m <sup>3</sup>	500m <sup>3</sup> < Vol ≤ 1000m <sup>3</sup>	1000m <sup>3</sup> < Vol ≤ 5000m <sup>3</sup>	5000m <sup>3</sup> < Vol ≤ 10,000m <sup>3</sup>	Vol > 10,000m <sup>3</sup>

Note: For contaminants of concern entering an open surface water receptor, use the applicable regulatory concentration limit. Where regulatory limits are not specified, use the IFC effluent guideline value provided in Table 2. Where multiple contaminants of concern are present, use the highest classification obtained.

**Table 2. Selected IFC Effluent Guidelines<sup>8</sup>**

Pollutant	Units	Guideline Value
Arsenic	mg/L	0.1
Cadmium	mg/L	0.05
Chromium (VI)	mg/L	0.1
Copper	mg/L	0.3
Cyanide Free	mg/L	0.1
Iron (total)	mg/L	2.0
Lead	mg/L	0.2
Nickel	mg/L	0.5
Zinc	mg/L	0.5

Note: Metals concentrations represent total metals.

<sup>8</sup> International Finance Corporation, Environmental, Health and Safety Guidelines: Mining, 2007, p26.