



## Environmental Incident Classification Criteria

Event type	Incident Details Reported to Corporate Office <sup>1</sup>			Number of Incidents Reported to Corporate Office	
	Extreme	Major	High	Moderate	Minor
<p><b>1. Loss of containment</b></p> <p><i>Includes releases of process water, saline water, hydrocarbons, reagents, wastewater or tailings material <u>outside of designated containment areas</u>.</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>Note: If a continuous discharge occurs due to the same cause, it is classed as a single event.</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>3</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><u>or</u></p> <ul style="list-style-type: none"> <li>that requires replacement of growth medium resources (topsoil).</li> </ul>	<p>Release:</p> <ul style="list-style-type: none"> <li>where the volume and concentration of contaminants<sup>2</sup> result in a High classification in Table 1;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>on unsecured AGA property where supernatant water exceeds 50mg/l of WAD CN;</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>3</sup>;</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>that requires in-situ remediation of growth medium resources.</li> </ul>	<p>Release:</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>on unsecured AGA 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>that impacts on undisturbed soils and native vegetation but does not affect priority flora species<sup>3</sup>.</li> </ul> <p><u>or</u></p> <ul style="list-style-type: none"> <li>that causes a reversible impact on growth medium resources.</li> </ul>	<p>Release:</p> <ul style="list-style-type: none"> <li>outside of designated containment areas but inside AGA access-controlled operational area <u>and</u> where the volume is greater than 20 L;</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>3</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>3</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>3</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 impacts native vegetation but does not impact environmentally sensitive areas.</p>

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

<sup>2</sup> Excluding WAD cyanide.

<sup>3</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>	Disposal of waste that has widespread human health impacts or ecosystem impacts.	Disposal of waste outside of a designated area leading to: <ul style="list-style-type: none"> <li>impacts on native vegetation with a loss of priority flora population<sup>3</sup> over an area &lt;10 hectares;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>irreversible impacts on soil quality requiring soil replacement over an area &gt;2500m<sup>2</sup>;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>alteration of receiving surface water or groundwater quality parameters by &gt;10%</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>human health impacts.</li> </ul>	Disposal of waste outside of a designated area leading to: <ul style="list-style-type: none"> <li>soil quality impacts requiring in-situ soil remediation;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>impacts on native vegetation including priority flora<sup>3</sup> over an area &lt;1 hectare;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>alteration of receiving surface water or groundwater quality parameters between 5% and 10%.</li> </ul>	Disposal of waste outside of a designated area leading to: <ul style="list-style-type: none"> <li>reversible soil contamination over an area &gt;2500m<sup>2</sup>;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>alteration of receiving water quality parameters by &lt;5%.</li> </ul>	Disposal of waste outside of a designated area that does not impact on soil, surface water or groundwater.
<b>4. Unauthorised or unplanned air emissions (including dust and gases)</b>	Unauthorised air emission that has widespread human health impacts or ecosystem impacts.	Unauthorised air emission event that: <ul style="list-style-type: none"> <li>results in significant public complaints;</li> </ul> <u>and</u> <ul style="list-style-type: none"> <li>exceeds point source and ambient air quality regulatory standards.</li> </ul>	Unauthorised air emission event that exceeds regulatory standards for: <ul style="list-style-type: none"> <li>point sources;</li> </ul> <u>and</u> <ul style="list-style-type: none"> <li>ambient air quality.</li> </ul>	Unauthorised air emission event that exceeds point source air quality standards but not ambient air quality standards.	Unauthorised air emission event that does not exceed air quality or regulatory standards and has no potential for public health impact.
<b>5. Fauna injury and deaths</b>  Includes fauna events at tailings dams.	Extinction of priority fauna <sup>3</sup> .	AGA activities that lead to: <ul style="list-style-type: none"> <li>multiple fauna deaths over an extensive area from a single event;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>multiple deaths of a priority species<sup>3</sup> impacting on local populations.</li> </ul>	AGA activities that lead to: <ul style="list-style-type: none"> <li>multiple fauna deaths and impact on local fauna populations;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>incidental deaths of priority species<sup>3</sup>.</li> </ul>	AGA activities that lead to multiple fauna deaths without displacing local populations and with no loss of priority species <sup>3</sup> .	AGA activities that lead to isolated injuries or death of fauna that are incidental to local populations.
<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.



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<b>7. Legal and regulatory compliance</b>  Includes exceedance and violation of permit conditions.	The operation's regulatory licence to operate is suspended or revoked.	An incident that results in an injunction against continuing operations.	<ul style="list-style-type: none"> <li>Incident of non-compliance to regulatory or licence conditions resulting in written threat of action against the operation by regulatory bodies;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>a fine of US\$100,000 or more.</li> </ul>	<ul style="list-style-type: none"> <li>Incident of non-compliance which must be reported to the regulatory authorities;</li> </ul> <u>or</u> <ul style="list-style-type: none"> <li>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: Use the applicable regulatory concentration limit for contaminants of concern. Where regulatory limits are not available, 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>4</sup>**

Pollutant	Units	Guideline Value
Total Suspended Solids	mg/L	50
COD	mg/L	150
BOD <sub>5</sub>	mg/L	50
Oil and Grease	mg/L	10
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>4</sup> International Finance Corporation, Environmental, Health and Safety Guidelines: Mining, 2007, p26.