

# The Stock Exchange of Hong Kong Limited

## Practice Note 4

to the Rules Governing the Listing of Securities on GEM  
of The Stock Exchange of Hong Kong Limited  
(the “GEM Listing Rules”)

Issued under rule 1.07 of the GEM Listing Rules

### SUGGESTED RISK ASSESSMENT FOR MINERAL COMPANIES

#### Risk Assessment

Although other jurisdictions do not have a specific risk factor requirement, a listing of significant risk factors provides investors with a summary of significant risks to the company and its properties. A risk factor section is often included in reports filed in jurisdictions without a specific requirement for their inclusion. This can be particularly important for investors looking to invest in the mineral resource sector.

In their technical reports, most consulting firms include risk analysis tables that address common areas of risk along with an assessment of the degree of risk for the particular project. These assessments are necessarily subjective and qualitative. Risk has been classified from minor to major, which can be further clarified as:

- **Major Risk:** the factor poses an immediate danger of a failure, which if uncorrected, will have a material effect (>15% to 20%) on the project cash flow and performance and could potentially lead to project failure.
- **Moderate Risk:** the factor, if uncorrected, could have a significant effect (10% to 15% or 20%) on the project cash flow and performance unless mitigated by some corrective action.
- **Minor Risk:** the factor, if uncorrected, will have little or no effect (<10%) on project cash flow and performance.

The likelihood of a risk must also be considered. Likelihood within a 7-year time frame can be considered as:

- Likely: will probably occur
- Possible: may occur
- Unlikely: unlikely to occur

The degree or consequence of a risk and its likelihood are combined into an overall risk assessment as presented in Table 1.1.

**Table 1.1**  
**Overall Risk Assessment**

Likelihood of Risk (within 7 years)	Consequence of Risk		
	Minor	Moderate	Major
Likely	Medium	High	High
Possible	Low	Medium	High
Unlikely	Low	Low	Medium

Table 1.2 presents an example of a risk assessment for a coal project and shows how the likelihood and consequences of a risk are combined into an overall rating. Note that the detailed items considered are project specific.

**Table 1.2  
Project Risk Assessment Table Before Mitigation**

<b>Hazard/Risk Issue</b>	<b>Likelihood</b>	<b>Consequence Rating</b>	<b>Risk</b>
<b>Geological</b>			
Lack of Significant Resource	Unlikely	Minor	Low
Loss of Significant Reserve	Possible	Major	High
Significant Unexpected Faulting	Likely	Major	High
Significant Subsidence	Possible	Moderate	Medium
Poor Geological Roof	Likely	Moderate	Medium
Unexpected Groundwater Ingress	Possible	Moderate	Medium
Unexpected Seam Gas Outburst	Unlikely	Moderate	Low
<b>Mining</b>			
Significant Production Shortfalls	Possible	Major	High
Production Pumping System Adequacy	Unlikely	Major	Medium
Adverse Pre-Mining Stress	Possible	Moderate	Medium
Excessive Gas	Possible	Moderate	Medium
Spontaneous Combustion	Unlikely	Major	Medium
Significant Geological Structures	Likely	Moderate	High
Poor Development Roof/Rib Conditions	Possible	Minor	Low
Poor Development Floor Conditions	Unlikely	Moderate	Low
Poor Production Roof	Unlikely	Major	Medium
Excess Surface Subsidence	Possible	Major	High
Outbursts	Unlikely	Major	Medium
Windblasts	Unlikely	Moderate	Low
<b>Processing/Handling</b>			
Lower Yields	Possible	Minor	Low
Lower Plant Production Levels	Possible	Moderate	Medium
Higher Plant Production Costs	Possible	Moderate	Medium
Plant Reliability	Possible	Moderate	Medium
Handling System	Unlikely	Moderate	Low
<b>Environmental</b>			
Water Discharge Non-Compliance	Possible	Minor	Low
Significant Unpredicted Subsidence	Possible	Moderate	Medium
Regulatory Consent/Variation Delays	Possible	Minor	Low
<b>Capital and Operating Costs</b>			
Project Timing Delays	Possible	Moderate	Medium
Mine Management – Plan	Unlikely	Minor	Low
Capital Cost Increases – Start-Up	Possible	Moderate	Medium
Capital Costs – Ongoing	Unlikely	Minor	Low
Operating Costs Underestimated	Possible	Moderate	Medium
<b>Project Implementation</b>			
Critical Path Delays	Possible	Moderate	Medium

There are five high risk areas identified in Table 1.2. While this approach is necessarily subjective and a number of issues are related, the areas with high risk rating may be summarized as follows:

- loss of significant reserve,
- significant production shortfalls,
- significant unexpected faulting,
- significant geological structures, and
- excess surface subsidence.

The areas of high risk, ranked by their importance, should be an important part of technical and valuation reports. Although general areas such as geology, reserve estimation, production, processing, financial issues, social and environmental issues, etc. are common major topics in risk assessments, the specific risks appropriate to each property and each company will differ from property to property and company to company. For a particular property or company, the number and order of risk factors will vary from year to year. In periods of low commodity prices, a risk factor relating to commodity prices will be far more important than during periods when commodity prices are high. Availability of needed equipment (drill rigs, trucks, shovels, etc.) also varies from year to year. The issuer is responsible for ensuring that appropriate risk factor disclosures are made.