

BEST PRACTICE ENVIRONMENTAL MANAGEMENT IN MINING

ENVIRONMENTAL RISK MANAGEMENT

Handout 1

Definitions

Environment All aspects of the biophysical environment; human health and well

being and community values. Emphasis should be placed on

ecologically sustainable development.

Hazard A source of potential harm or a situation with a potential for harm.

Harm Any damage to people, property or the biophysical, social or cultural

environment.

Risk Risk has two dimensions: the consequences of an event and the

> likelihood of those consequences being realised. If hazard denotes a potential cause of harm, then risk describes the likelihood that harm will

occur.

Consequence(s) The intermediate or final outcome(s) of an event or situation.

Likelihood This is a qualitative term which is commonly used to describe both

frequency and probability.

Frequency The number of occurrences of a defined event in a given time (ie. the

rate).

Probability The likelihood of a specific outcome measured by the ratio of specific

> outcome to the total number of possible outcomes. Expressed as a number on a scale of 0 to 1 where 0 indicates an impossible outcome

and 1 indicates that an outcome is certain.

Risk analysis The systematic use of available information to identify hazards and

estimate the likelihood and consequences of those hazards being

realised.

Risk assessment The evaluation of the results of risk analysis against criteria or

objectives to determine the acceptability of risks and to determine

management priorities.

Risk management The application of policies, procedures and practices to the

> identification of hazards; analysing the consequences and likelihoods associated with those hazards; estimating risk levels; assessing those

levels of risk against relevant criteria and objectives and making

decisions and acting to reduce risk levels.

