

MINING, TAILINGS FACILITIES, WATER QUALITY PROTECTION GUIDELINES

2562. Hon Nigel Hallett to the Minister for Education and Training representing the Minister for the Environment

I refer to a document which I understand is titled 'Water Quality Protection Guidelines No. 2, Mining and Mineral Processing, Tailings Facilities 2000' which were endorsed/signed and agreed upon by the Waters and Rivers Commission, Department of Environmental Protection and the Department of Minerals and Energy -

- (1) Is it correct that part of this document referred to above states 'Monitoring bores should be sampled at least quarterly for key water quality indicators associated with a particular mineral process'?
- (2) If not to (1), will the Minister quote the full text from the document?
- (3) Can the Minister give the reasons why the Department previously recommended that monitoring bores should be sampled at least quarterly for key water indicators associated with a particular mineral process?
- (4) If no to (3), why not?
- (5) Can the Minister explain why are key water indicators associated with a particular mineral process so important to require that monitoring bores be sampled at least quarterly?
- (6) If no to (5), why not?
- (7) Can the Minister explain the importance and reasons why there is a need for where anomalous analytical results occur the site should be immediately retested/resampled to confirm the validity of the result given that this can involve a substantial cost?
- (8) If no to (7), why not?

Hon LJILJANNA RAVLICH replied:

The Minister for the Environment; Science has provided the following response:

- (1) Yes, though it should be noted that the preamble to the quote in Q1 states: "The frequency of monitoring will vary depending on the situation of each tailings dam. As a general guide:" Four dot points follow, one of which is described in your partial reference
- (2) Not applicable.
- (3) Yes. The guidelines were developed in consultation between the Water and Rivers Commission, Department of Environmental Protection and Department of Minerals and Energy. These guidelines were developed to establish actions required by operators to meet their obligations under all of the Acts administered by those Departments and to also guide operators into areas of best practice that may be over and above legislative requirements.

A monitoring requirement indicates that the facility is expected to pose some level of risk to the surrounding environment. The monitoring regime will be established based on an assessment of the local conditions. The frequency in the licence is selected to allow an assessment of the level of risk posed by various tailings contaminants and gauge any variation that occurs with time. This data may be used by the regulator to require additional works or actions by the project operator to limit harm to the surrounding environment, in the event the monitoring results indicate a need. Additionally monitoring data can be used to refine the level of risk and monitoring frequencies modified in response to this changing risk assessment.

- (4) Not applicable.
- (5) Yes. It is acknowledged that the construction of many tailings dams do allow some seepage of slurry waters and any collected stormwater. Regulatory authorities generally select key water quality indicators such as pH, salinity and chemicals characteristic of the ore body and mineral extraction process to assess the effectiveness of the containment and level of risk posed to the external environment. This data assists in decision making related to the controls on the tailings facility.
- (6) Not applicable.
- (7) Yes. Due to a range of factors eg. changes to tailings management practices, sampling or analytical errors, or rainfall events there can be considerable variation in water sample results over time. Where a laboratory result gives an anomalous reading when compared against historical data, it is standard quality assurance practice to re-sample as a check of the validity of the results prior to requiring expensive corrective actions be undertaken by the project operator on the basis of a single monitoring result. This is often judged on a case by case basis, in reference to local conditions.

(8) Not applicable.