

WEDGETAIL EXPLORATION NL - WORKS APPROVAL 4248

2175. Mr M.J. Birney to the Minister for the Environment

With reference to the Works Approval 4248 in the Pilbara region issued to the Manager of Wedgetail Exploration NL dated 8 February 2007 signed by Sharon Clark, Acting Assistant Director Regional Services, Environment from the Department of Environment and Conservation (DEC), I ask -

- (1) Can the Minister state how the DEC is going to ensure that there is only minor or no seepage beneath the surface of the Tailings Dam?
 - (a) If not, why not?
- (2) Is it correct that the DEC is concerned about seepage from the Tailings Dam reaching the surface and underground natural groundwater?
 - (a) If not, why not; and
 - (b) If yes, why?
- (3) Is it correct that the DEC is concerned with the flooding of Cajuput Creek interacting with the Tailings Dam?
 - (a) If not, why not; and
 - (b) If yes, why?
- (4) Can the Minister state what the specific concerns of the DEC are in relation to the overtopping and runoff from the Tailings Dam entering groundwater or Cajuput Creek?
 - (a) If not, why not?
- (5) Can the Minister state what the current depth in metres is of the natural groundwater below the surface?
 - (a) If not, why not?
- (6) Can the Minister explain how the solid tailings assist the Non Acid Forming (NAF) liner in preventing seepage?
 - (a) If not, why not?
- (7) Can the Minister state how much seepage in litres is expected to occur beneath the Tailings Dam and how far in metres it is expected to travel from the perimeter of the dam during the operation of the Tailings Dam?
 - (a) If not, why not?
- (8) In the event that seepage does occur will all of the seepage beneath the Tailings Dam be collected to ensure that there is no detrimental impact from seepage on contaminating surrounding groundwater or impacting on the Cajuput Creek?
 - (a) If not, why not?

Mr D.A. TEMPLEMAN replied:

- (1) In issuing the Works Approval, DEC completed an Environmental Assessment Report which confirms that the environmental risks associated with seepage from the tailings facility are minimal based on the following commitments made by Wedgetail Exploration NL:
 - The facility will be designed in accordance with the Department of Industry and Resources' guidelines;
 - A clay liner will be used to encapsulate the tailings;
 - The high density tailings slurry will be of low permeability; and
 - A seepage recovery system will be installed around the perimeter of the facility.During consultation with the Department of Water and the Department of Industry and Resources, it was agreed that the local geology and onsite water-use measures also reduce the risks of seepage from the Tailings Dam.
As a condition of the Works Approval, DEC has required that a comprehensive monitoring program be submitted prior to operating the Tailings Dam.
- (2) See the answer to (1).

- (3) No. Studies by GDA Consulting Hydrologists, on behalf of the proponent and in consultation with the Department of Water, have confirmed that the Tailings Dam is located one metre above the 1 in 100 year flood level for Cajuput Creek. In addition, Wedgetail Exploration NL have committed to providing additional protection of the Tailings Dam wall by rock armouring the lower two metres along the main embankments.
- (4) DEC does not have specific concerns as the environmental risks associated with overtopping and runoff from the Tailings Dam are considered minimal based on the following commitments made by Wedgetail Exploration NL:
 - Freeboard will be maintained to accommodate a 1 in 100 year 72 hour rainfall event without overtopping;
 - Site drainage will be consistent with industry standards and will also meet the Department of Industry and Resources and Department of Water standards; and
 - Water reuse from the Tailings Dam will be maximised.
- (5) The groundwater is approximately 20 metres below the natural surface.
- (6) The solid tailings are expected to comprise a fine, silt material that will settle quickly and assist the clay liner by forming a high density, low permeability layer.
- (7)-(8) Wedgetail Exploration NL has committed to installing a seepage recovery system designed to collect any seepage below the Tailings Dam. This will be subject to monitoring to confirm its performance.