Pulp
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IN CONFIDENCE

6 July 2005

Mr John Gay
Executive Chairman
Gunns Ltd
PO Box 572
LAUNCESTON TAS 7250

Dear Mr Gay,

Bleached Kraft Pulp Mill Proposal –
Comments on Proposed Change in Project Scope and Other Matters Arising

The Resource Planning and Development Commission (Commission) has now received advice from its technical advisors, Beca AMEC Ltd (BAL) following receipt by the Commission of Jaakko Pöyry's report "Radiata Pine Production", Bell Bay Pulp Mill Project, Tasmania, dated 9 June 2005 (JP report). The Commission's Assessment Panel met on 29 June 2005 to consider this advice. This meeting was preceded on 28 June 2005 by a tour of the lands on either side of the Tamar Estuary in order to gain a better understanding of the geography of the region immediately adjacent to the proposed mill site and a wider area where the activities carried on may be impacted by mill activities, particularly emissions to air.

A copy of the advice received from BAL is attached for your information and I would like to take this opportunity to draw your attention to the major concerns raised in the advice, and by Assessment Panel members at the meeting on 29 June 2005.

1. **Proposed use of processes that do not come within the scope of Accepted Modern Technology (AMT)** as specified in the "Environmental emission limit guidelines for any new bleached eucalypt kraft pulp mill in Tasmania" (Tasmanian Guidelines), which as you are aware, have been endorsed by the Australian Government and approved by the Tasmanian Government as part of the integrated assessment process for the pulp mill proposal at Long Reach. In preparing the Tasmanian Guidelines the Commission determined at a very early stage that only two methods for production of the major bleaching agent, chlorine dioxide, namely the "methanol process" and the "hydrogen peroxide process" were considered to be AMT for production of chlorine dioxide in kraft pulp mills (Tasmanian Guidelines Volume 1, page 13). Selection of

these processes was made specifically to minimise contamination of the chlorine dioxide with elemental chlorine and no adverse comment was received by the Commission from any quarter relating to this choice. In this light, the recommendation from Jaakko Pöyry to use the Integrated Dioxide Process (IDP) without comment for production of chlorine dioxide is very disappointing. BAL advise that use of IDP generates elemental chlorine levels of up to 0.22 kg Cl_2/kg ClO_2 in the chlorine dioxide solution which would be a breach of the Tasmanian Guidelines and the understanding the Tasmanian Government has reached with the Australian Government. Gunns should also consider whether the use of the IDP would place the project in breach of the Stockholm Convention on Persistent Organic Pollutants.

The proposed use of IDP for production of chlorine dioxide is therefore, as presently advised, not acceptable to the Commission unless Gunns can demonstrate that proprietary improvements to this process are capable of producing chlorine dioxide with purity levels equivalent to those obtained through use of the methanol or the hydrogen peroxide processes. Please note that if Jaakko Pöyry's proposal is based on recent improvements to the IDP that are not yet fully in the public domain (for example those claimed by the company Chemetics in their publication, "Low chlorine integrated chlorine dioxide plant.", published in 2000), then by definition it will not be AMT. In such a case, Gunns would be required to demonstrate that the new technology had well-defined environmental benefits, possibly based on application of the new technology to the proposed wood supply under simulated laboratory, or pilot-scale conditions. Such a study would also have to address the misgivings expressed in the attached memo from BAL relating to build up of chloride in the liquor circuit within the chemical recovery cycle. As at the date of this letter, the Commission is not aware of any commercial scale installation of the IDP anywhere in the world that conclusively establishes the capability of Chemetics', or any other IDP vendor's technology to generate chlorine dioxide solution containing less than 0.02 kg Cl_2/kg ClO_2 on a consistent and long term basis.

The situation above also applies to the second non-AMT proposed for use at Long Reach, namely the use of an acid treatment (A) stage to remove hexenuronic acids (HexA) from the eucalypt pulp at the beginning of the bleaching sequence in Jaakko Pöyry's proposed "Alternative 2". The Tasmanian Guidelines explicitly state that an A stage is regarded as "emerging technology", not AMT. This is because, although the A stage hydrolyses and removes HexA (and therefore reduces the consumption of ClO_2), reduces the formation of AOX, decreases brightness reversion and may reduce problems with scaling of oxalate on bleaching equipment, the Commission believes that it would be onerous for Gunns to generate the volume of environmental data required to establish the *bone fides* of this emerging technology in the time foreshadowed for assessment of the proposal. In addition, "Alternative 2" is not applicable to bleached kraft pine pulps. The proposal to use "Alternative 2" for bleaching must therefore be dropped in favour of "Alternative 1", or another sequence defined in the Tasmanian Guidelines as being AMT.

2. **The second major concern, discussed at length by the Panel at a number of meetings, concerns methods of controlling fugitive total reduced sulphur (TRS) emissions from the mill.** The Panel is aware that Gunns' current proposal involves conveying the combustion gases containing the largest volume of TRS (from the recovery boiler, the lime kiln and the concentrated non-condensable gas (CNCG) incinerators to a single discharge structure over 100 metres in height. While this proposal is, subject to acceptable results from detailed modelling, using atmospheric data collected over a 12 month period at the Long Reach site, as specified in the Tasmanian Guidelines, generally in line with the expectations of the Panel, there has as yet been no written indication from Gunns, or from Jaakko Pöyry, as to how other fugitive low-level TRS odour emissions are to be controlled. Commission staff have listened to a number of verbal claims from Gunns Project Manager Mr Les Baker, to the effect that the mill will be completely odour-free. The Commission has not, however, received any details, either written or verbal, as to how this "world first" is to be achieved. The Tasmanian Guidelines were framed in full recognition of the fact that AMT for controlling nuisance emissions of TRS from drains, pump seals, pipe connections and vessels in the liquor evaporation area of kraft mills cannot completely seal these potential emission points that are normally situated within 10 metres of ground level. These potential emission points number some several hundred and although each is usually quite small in volume, their effect in aggregate has proven in all kraft pulp mills constructed to date, of which the Commission is aware, to cause significant nuisance and diminution in quality of life for people living in the mill area on many days of the year. The Commission is also aware that the extent of the area affected by these low level nuisance odours varies considerably, depending on land topography and weather conditions. In Gippsland, in Victoria, the area affected is some 40 kilometres in radius, whereas in Tumut in NSW, the area is nearer to 15 kilometres. Sections D.4.12 and D.5.15 of the Tasmanian Guidelines were written with these facts in mind. Gunns' proposal to site the mill in the Tamar Estuary, where air is frequently stagnant and covered by a thermal inversion layer, and within the Tamar Valley air shed, itself subject to widespread concern over levels of aerial pollutants from other sources, means that the Commission must be pro-active and take particular interest in this aspect of the proposal. The Commission must ensure that this nuisance odour is kept to the absolute minimum level afforded use of AMT. Preferably nuisance odour should be kept to levels where it is only detectable beyond the mill boundary on less than 3 days a year in a highly populated area like the Tamar Valley. I re-iterate that the Commission has not had even a vestige of indication from Gunns, or its consultants, that this potential problem (that has been a major source of community nuisance and concern in the two other kraft mills in Australia) firstly exists, or secondly and more importantly, about how it is to be addressed.

These two areas of concern are the major items discussed by the Panel in respect of Jaakko Pöyry's report. Other less significant errors and inconsistencies in the report are discussed in detail in the attached memo from BAL that I commend to your early attention and response.

Yours faithfully,

Julian Green
EXECUTIVE COMMISSIONER

cc Mr Les Baker, Project Manager