

# Gunns' planned Pulp Mill - Odour Advisory

## TAP Into A Better Tasmania

TAP Into A Better Tasmania

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# 1. ODOUR MANAGEMENT ISSUES

## 1.1 Gunns' claims that their planned pulp mill will not cause odour problems

"The proposed pulp mill will use state of the art, world class technology to prevent any "smells". Our mill will be the first in the world to have a 3-tier odour protection system which "burns" the odours. All 3 systems would have to break down at the same time in order for odour to be released. Our studies show that the statistical likelihood of odour limits being exceeded at the pulp mill site is once every 11 years!"

Source ; Gunns website <http://www.gunnspulpmill.com.au/factsheets.php>, 7 Sept 2010.

And in Gunns' Draft Integrated Impact Statement, "The Bell Bay pulp mill will have amongst the lowest emissions in terms of air quality and odour of any in the world. A world class three tier odour abatement system is planned to capture all gases" IIS Vol 6 p 320.

Viticultural consultant to Gunns' Tamar Ridge Estates, Richard Smart concluded from another of Gunns' consultants Pacific Air and Environment's (PAE), that "reduced sulphur odours will not be discernible at the Tamar Ridge Estates" (The impact of Bell Bay pulp mill On Tamar Ridge Estates, Kayena Vineyards 28 August 2007, page 10). Note that PAE only considered emissions from the main pulp mill stack, a highly significant point as Dr Warwick Raverty explains below.

## 1.2 Comments on foul odour from RPDC panellist Dr Warwick Raverty

After Gunns withdrew from the RPDC, Dr Warwick Raverty was free to provide technical information to TAP in response to several questions about odour and pulp mills. Dr Raverty was appointed to the RPDC panel to provide technical expertise and is an experienced research scientist who has worked in both kraft pulp mills in Australia for extended periods, visited many overseas mills and who has read the scientific and environmental literature relating to manufacture of bleached kraft pulp for over 27 years.

His advice is contained in two emails reproduced below.

### 1.2.1 Foul gases

-----Original Message-----

From: Warwick Raverty [mailto:[paperscience@bigpond.com](mailto:paperscience@bigpond.com)]

Sent: 10 May 2009 14:25

'Fugitive odours from a kraft pulp mill can be detected up to 55 kms away - as far as Launceston, Deloraine, Longford and Bridport if the monster mill is built at Bell Bay.

All kraft pulp mills produce tens of tonnes per day of toxic gases that pulp mill managers refer to euphemistically as 'Non Condensable Gases', or NCG for short. In the same way that industry managers refer to 'outplacement' and workers call it retrenchment, pulp mill workers call NCG by its real name: FOUL GAS!

Foul gas is a toxic, highly flammable mixture of methyl mercaptan (one of the most offensive smelling gases known to science with an odour likened to a mix of stale sewage and rotting cabbage), hydrogen sulfide (aka rotten egg gas), dimethyl sulfide (a volatile liquid that smells like rotting seaweed, or burning rubber depending on the vapour concentration) and dimethyl disulfide (a volatile liquid that smells like burning rubber).

While almost all of this foul gas is collected and burned in modern mills in a 3 tier odour control system, the gas must pass through many kilometers of pipe work before being destroyed. The 1000s of pipe seals en-route gradually become saturated with the foul gas and leak it into the air in sufficient quantity to surround ALL KRAFT PULP MILLS, even the most modern ones. The offensive fugitive odour causes nausea and headaches in most people exposed to it for long periods.

Stendahl kraft mill in Germany, half the size of Gunns proposal, was 'odour- free' for 12 months after starting up, then 6 months later it developed odour problems and angry neighbours because of the gradual saturation of the pipe seals and other leakage points.

Science has no solution to the problem of fugitive odours and none is likely within the foreseeable future. What is more, the offensive odour becomes worse as the mill grows older and pipe seals inevitably degrade - particularly in the hands of companies with poor records of engineering maintenance and no experience in the technology.

Gunns' management arrogantly refused to respond to repeated questions from the RPDC about fugitive odours, simply claiming 'there will be no smell from the mill' - a world first claim by the least experienced pulping company in the world. Despite his grandiose claims, Gunns' project manager flatly refused to give the RPDC a written guarantee that the mill would not smell. So all of the businesses on the map (in the 55km radius odour zone around Bell Bay) are at risk, so is the quality of life of every person living within the RPDC's deigned "regional airshed".

Regards,  
Rav  
paperscience@bigpond.com

### **1.2.2 Comparison of Gunns' proposal with the Visy pulp mill built by Richard Pratt at Tumut, NSW**

-----Original Message-----

From: Warwick Raverty [mailto:paperscience@bigpond.com]  
Sent: 6 July 2009

I have attached my copy of the text that Sue Neales (editor of the Mercury) had republished on the 27th or 28th June 2007 (original articles in the Mercury 5th and 6th November 2005) about

how Visy dealt with its odour problems at Tumut. As you will see, I added my own 'compare and contrast' comments at the end, which you are free to publish if they will be of use - I put them together for Investors for the Future of Tasmania in June 2007 and, as far as I am aware, they have not been published previously.

The article gives the names of some Tumut area residents (mill is actually 8km out of Tumut township and it is people in the next valley who were badly affected. I have highlighted the commitment that the late, great Dick Pratt made before the mill was built. After the mill was built and Sven Lundgren's\* (now working with Gunns, or was in 2005) design failed to honour Dick's promise, Dick actually visited the home of one family living close to the mill himself. The owner, whose name I forget, (but he lived in Gadara Road), said to Dick, 'You can imagine what it's like living with this smell for hours on end.' and Dick replied, 'I think that it is intolerable for even 5 minutes. We will fix the problem.'

Dick was true to his word and that is how CSIRO and I got involved.

Fixing the problem meant reducing the odour by about 90%, not eliminating it. I stress that we only succeeded because Sven Lundgren's design had a major flaw that allowed contaminated 'foul condensate' to be used as recycled water on the paper machine, from where it was evaporated in the paper drying equipment into the atmosphere. It took about 3 months work at the mill to discover the flaw (such is the extreme complexity of even small mills with no bleach plant!) and another 6 - 9 months to prototype a solution that Visy then built. Tumut at the time was only 175,000 tonnes per annum of pulp, so smaller (one sixth less odour) than Gunns.

There is no solution to the pipe seal fugitive odour problem, save possibly solid Teflon seals which would be prohibitively expensive. Even then, you would still have leaky pumps and spill drains and the effluent treatment plant as sources of fugitive odour - despite Jaako Poyry's claims - Finnish 'no fugitive odour' standards fall a long way short of Australian 'no fugitive odour' standards.

Tumut has recently (2009) been expanded to 700,000 tonnes per annum of pulp (approval due in no small part to minimising their odour problem), so it would be interesting to know whether or not the residents are still happy with the emissions from the expanded mill.

\* Note; Visy's foul gas containment system was designed by the very same Swedish engineer Mr Sven Lundgren, who designed Gunns' proposed foul gas containment system.

#### **FURTHER COMMENTS from Dr Raverty comparing Gunns and Visy pulp mills:**

- 1. Visy: have a 40-year history and experience of pulp and paper and a commitment to continuous training and upgrading the skills of their staff. They send a 3-man team of their top experts around the world to integrate the best technology available and to design a 200,000 tonne per annum zero-effluent mill despite expert predictions that this is technically and economically unachievable.**

**Gunns:** have no history or experience of pulp and paper and no discernable commitment to training, or upgrading the skills of their staff. In fact some of their senior staff are regarded by normal, middle-of-the-road Tamar residents as ‘thugs’. Having zero knowledge of pulp and paper, to the extent of being completely unaware of the differences between pulping and bleaching pine and eucalypt pulps as late as May 2005, Gunns hire a team of Finnish experts to design a ‘turn-key’ mill while actively preventing the Finnish experts from communicating directly with their environmental consultants GHD. All correspondence must pass through Gunns’ own inexpert staff.

To be scrupulously fair, it is acknowledged that Gunns’ Finnish experts have done a very good job in minimising the volume of liquid effluent in the mill design. If Visy produced bleached kraft pulp they would not be able to achieve a zero-effluent status. No bleached kraft pulp mill in the world has achieved zero-effluent status because the spent ECF bleaching chemicals cannot be recycled (unlike the spent pulping chemicals which are recycled routinely) and must be subjected to extensive treatment using the Accepted Modern Technologies specified in the Commonwealth-State approved Environmental Emission Limit Guidelines prior to discharge into the sea.

Over a decade of experience in Sweden has shown that when highly experienced companies operate ECF bleached kraft pulp mills using these effluent treatment technologies, no detectable damage (including dioxin discharge) is done to the receiving environment. Whether or not Gunns have the ability and commitment to gain this level of experience is highly questionable in my personal view.

2. **Visy: promise ‘No adverse effects of the mill would be felt, smelt or experienced by anyone living beyond the boundaries of the Visy mill and its surrounding Pratt Pastoral farmlands.’ When this objective is not achieved when the mill commence operation in late 2001, Visy spend an extra \$40-50 million in odour-reduction work (including contracting CSIRO’s Dr Warwick Raverty to work on site for 9 months in 2004) and consult actively with the NSW EPA between 2002 and 2006 in order to reduce odour complaints from residents from over 50 per month to around 1 every 2 months. This reduction was achieved because the mill is one fifth the size of Gunns’ proposal and because the source of 90% of the odour was found to be emitted from a single source that allowed it to be captured and destroyed.**

**Gunns:** Believe the spin of their Finnish experts that large modern kraft mills can be made odour-free despite direct evidence from the latest mill built for Celco at Nueva Aldea in Chile that the residents living around the mill are complaining of nausea and headaches from the stench emitted by the mill and that a \$6 million shipment of organic wine from a nearby vineyard has been rejected by Swedish importers because of contamination from the pulp mill.

Many warnings are given by the RPDC to Gunns that only 2% of the mill odour comes from the main ‘point source’ (the mill stack) and are asked by the RPDC to provide evidence that the mill will incorporate measures to reduce low-level fugitive odours that account for the other 98% of odour emissions. Gunns response is to dismiss these concerns and withdraw

from the RPDC review (March 2007). (Comment from TAP: see Appendix for confidential letters dated 6 July 05 and 12 July 05.)

- 3. Visy: chose to locate their mill near the epicentre of (NSW Government-owned) plantations in a sparsely populated valley with high unemployment and no pre-existing air pollution problems.**

**Gunns:** reject outright the site that they own in a sparsely populated area at the epicentre of their own plantations with no pre-existing air pollution problems and insist that the mill be built in a densely populated valley with the worst air quality in Tasmania with many conflicting industries, such as tourism, wine making and aquaculture that is close to native forest resources.

When a legitimately conducted poll of residents of the Valley shows that 3 people are against the mill for every 2 that favour it, Gunns continue to insist on siting the mill where a majority of residents are strongly opposed to it.

(Comment from TAP: Twenty-two opinion polls from 2005 to the present show that a clear majority oppose Gunns' proposed pulp mill. Source [www.tapvision.info/node/413](http://www.tapvision.info/node/413) )

- 4. Visy: engage in discussions with the Australian Conservation Foundation before they design their mill and then go out of their way to spend extra money to create a mill with the smallest 'environmental footprint' possible.**

**Gunns:** reject key elements of the Commonwealth-State approved Environmental Emission Limit Guidelines and propose to use a complex process to manufacture their main bleaching chemical that has not been proven to be reliable in any other pulp mill in the world and which is not regarded as 'Accepted Modern Technology' by the United Nations Environmental Program simply because they calculate that this process MAY generate the company additional profit.

Gunns fail to acknowledge that, in their own inexperienced hands, running a kraft pulp mill based entirely on Accepted Modern Technology will be a huge challenge in itself (witness the problems of experienced companies like Visy, Celco, Stora Enso and Mercer International with fugitive odour, or contaminated effluent damaging nearby waterways) without the additional challenge of being the first pulp mill in the world to use the unacceptable technology.

Gunns' complete failure to integrate and communicate their competence to the RPDC in even 10,000 A4 pages of data that was judged to be 'inconsistent, unreadable, unacceptable and based on too many assumptions' is testament to the fact that Gunns lack the high level technical skills, communication skills and necessary attention to detail that is necessary in order to run a large bleached kraft pulp mill according to Best Practice Environmental Management.

In my view, the risks of Gunns perpetrating environmental damage on the scale that Celco has wrought at Valdivia, Licancel and Neuva Aldea and causing irreparable damage to human health, tourism and land values in the Tamar is just too high for me to condone this proposal. I would not buy land in the Tamar Valley if Gunns' current proposal is allowed to proceed.

FINALLY: I found this interesting para from a blog (<http://surfcore.co.uk/node/1355>) created by an American surfer who visited Nueva Aldea in November 2006:

*'Our first stop "en terreno" is a water treatment facility. It is giant: at least four city blocks of holding tanks, treatment tanks, concrete, giant steel pipes and other equipment. Stinking dark-brown foamy water is sent from the production facilities to this place where it passes through a cooling tower (to be cooled down from 35 degrees Celcius) and enters three treatment processes including filtering, settling and bacterial digestion of certain solids and chemicals. This plant reeks of sulfur and other chemicals that are used in the cleaning process. After 15 minutes my stomach aches and my eyes are beginning to burn. Our hosts tell us that the latest technology eliminates most of the odors associated with the production and waste treatment, but I'm definitely smelling some horrible smells.'*

These 'horrible smells' don't pass through the odour treatment system or the main mill stack – one of the many fugitive emissions that Poyry deny exist in modern mills.

Regards,  
Rav paperscience@bigpond.com

### **1.3 Letter to TAP about Visy's mill at Tumut from local resident Louise Halsey, 21 November 2009**

Visy's mill near Tumut is built in the wrong place in a valley with a considerable inversion layer. We were told that the odours would not go beyond the boundary of Visy's property (3000 acres) and that the emissions would "punch" right through the inversion layer. Bunkum!

The odours at times are horrendous for the near neighbours.

The odours come from all sections of the mill and travel considerable distances. Visy has worked hard to get rid of the smell, but it still smells and now with the start-up of stage 2 the odours are appalling. It smells of rotten eggs, chemicals and washing that has been in the machine for days!!

Transport is also a huge concern. The hundreds of truck movements every day with logs and chemicals are taking a big toll on our roads.

I feel so desperately sorry for you. Gunns will stuff up the Tamar Valley and steal the dreams of so many.

Louise Halsey, "Eurobin", 1106 Gocup Rd, Gocup, NSW 2720

## **2. IMPACTS OF CHILEAN PULP MILLS ON WINERIES**

Two media reports from Chile published in 2006 show damaging affects on wineries from new pulp mills. Reports translated by Kerri Guardia - Planet Languages May 2007

### **2.1 Santiago Chile: International image and markets in danger**

May 31, 2006. An important deal consisting of 80 thousand bottles of organic wine between Itata Wines and Sweden was rejected a few days ago, due to damage done to the Itata region's international image after the installation of the CELCO Pulp Mill. This is how the information was released by the representative of Itata Wines, Heinrich Mannle. He is the owner of Mannle wines, situated 20 kilometres from Chilean in the small valley of El Naranjal in the Octava region. He demonstrated his concern and anxiety about this situation that had been anticipated by producers and Corema in the year 2000. These organizations had rejected the Environmental Impact Study done by the mill as they had estimated that a pulp mill would be damaging to health, as well as that it would be incompatible to the valley's activities of production.

The vineyard manager specified that he had 80 thousand units of high quality organic wine ready for shipment to the European nation. However, upon hearing that this wine was to be sourced from the Itata river basin, where Celco was to start their operations and pump effluent directly in to the river as well as emit air contaminants, the buyers took a step back.

"At this moment, the valley of Itata is in danger. There is -an area where the valleys use their origin's name and obviously the pulp mill is putting the sale of high quality wines from this region at risk": he worriedly expressed. "We are quite anxious. Sweden is a country of forestry and they know what a pulp mill means. Organic products such as what I produce are affected a lot more by an environmental impact of this magnitude." he added.

Mannle Vineyards offers a sophisticated wine of high quality in accordance with international standards. For that reason Mannle indicated that the rejection of the order shows that the international image of the valleys producers has deteriorated and that both industries are incompatible . "We were pretty excited. We had the ideal product for them, we agreed on price and quality, but by being from the Itata valley, it all went backwards. We have to see how we are going to recuperate our image in the future, and keep exporting in peace. Also we need to look at what it means for the other thousands of people and non-wine making activities in the area" he added.

For his part, Ricardo Merino, agricultural engineer, and retired professor from the University of Concepcion, was sorry about the news, especially as the Itata region was known and respected for their high quality organic wines.

"Sweden is quite demanding. Those who buy are practically the government and they had accepted the deal. When they found out that the wine came from the Itata River basin and that there was a pulp mill that had not even commenced operations, they rejected the order for the organic wines" he expressed.

This expert added that this could be the start of more rejections for more products from other foreign markets. "This is what will continue to happen, not just with wines but also the cherries, the mosqueta, berries, honey, they are all going to be incredibly damaged" he said, bothered. Mr Mannle in discussion with the Guayabira group also added "Wherever a pulp mill is placed, it generates more poverty".

More Information Heinrich Mannle (Chile) En6logo Fono: 42 -630627 Celular: 08 - 2329847  
Source: <http://www.mercosurco.com.ar/noticias.asp?Desde=I&Codigo=19812&Tipo=2>  
19/05/2006 1 Chile

## **2.2 Greenpeace lines up with Itata Vineyards .**

“In the Vine Houses of Giner, 300 meters from the Nueva Aldea Pulp Mill, vineyard owners associated in Itata Wines and Greenpeace leaders met yesterday, with Academic Ricardo Merino and environment lawyer Alex Quevedo to initiate actions against the Pulp Mill. The idea is to avoid effluent with polluting agents being spilled in to the Itata river and that industry changes its processes - from chlorine based to another which is more friendly for the environment. Also in order that it doesn't end up hurling contaminated liquid into the sea either. At this meeting were representatives of Tierra y Fuego vineyards, Mannle Organic Wines and their host Fernando Giner.”

“On the part of Greenpeace, Rodrigo Herrera, Samuel Leiva and Juan Carlos Cucherovich, initiated a tour yesterday of communities bordering Nueva Aldea, meeting with vineyard operators, agriculturists and other unions or groups who could be harmed by the new industry, that has indicated that it will officially begin to work in June. Christian Mannle, from a family company that produces organic wines in Quillon, indicated that by just the fact that a pulp mill was going to be built in the Itata Valley, meant that the government of Sweden rejected a deal of 80 thousand bottles of organic wine per year, in spite of to having approved samples, amounts and costings in advance.”

Source: Diario el Sur (The Southern Newspaper), Chile.

## 2.3 The Bordeaux wine / kraft mill argument

Pulp mill supporters have made claims that wineries and pulp mills happily co-exist in France. For example, viticultural consultant for the Gunns' owned Tamar Ridge Wines, Richard Smart, claims that "pulp mills and wine regions have co-existed in other countries, with no apparent problems" (The impact of Bell Bay pulp mill on Tamar Ridge Estates, Kayena Vineyards 28 August 2007, page 10). In addition, Barry Chipman (Timber Communities Australia) argued that the Bordeaux wine district in France works well with vineyards close by and no odour (7.30 Report ABC 30/6/09).

However, in a further email to TAP Dr Raverty has explained that while there are Kraft Pulp Mills in France, there is only one near vineyards, (making it only 1% of the vineyards within the Rhone Valley). The kraft mills are 'Smurfit', 'Saillat Kraft pulp mill', 'Saint-Gaudens Kraft mill' and the 'Tarascon Kraft mill.'

### -----Original Message-----

From: Warwick Raverty [mailto:paperscience@bigpond.com]  
Sent: 30 June 2009 23:09

1. The nearest Kraft mill is the Smurfit mill at least 50km from the nearest vineyard. This is a Kraft pulp mill that uses non bleaching technology. This mill would still emit the same fugitive odours as a Kraft -bleaching mill and is the closest mill to the Bordeaux wine regions. It would be the equivalent distance from the mill site to Longford or Deloraine.
2. The Saillat Kraft pulp mill, owned by US-based International Paper - in Saillat sur Vienne, near Limousin. This vineyard is in the Bordeaux region and 220 km downwind of the mill.
3. Parts of the Cognac wine region are closer, but no closer than 80 km - well outside the 55 km 'sacrifice zone' (odour zone), however the closer you get to the mill, the lower the quality of the cognac produced. See the official French Tourism website for more about the region closest to the mill (<http://www.francetourism.com/practicalinfo/vineyards.htm>).
4. The Saint-Gaudens Kraft mill, owned by Canadian company Tembec and 260,000 tonnes per year capacity (22% of Gunns'), in the foothills of the Pyrenees, near the Spanish border that is 200 km from the nearest vineyard (in a region called the Languedoc). Nowhere near Bordeaux!
5. The Tarascon Kraft mill near Nimes, (Marseilles)- owned by Canadian company Tembec and 260,000 tonnes per year capacity, (22% of Gunns'). It is only 10 km from the nearest vineyards in the Languedoc and 35 km from a small number of vineyards in the Rhone Valley - well over 99% of the Rhone Valley vineyards are well outside the 55 km sacrifice zone.

Tarascon Kraft Pulp Mill has ODOUR PROBLEMS - sufficient odour problems to warrant the setting up of a panel of 'nose volunteers' (aka an odour panel) and to have spent Euro 4 million in 2001 to upgrade the seals on 30 of their liquor storage vessels WITHOUT FIXING THE PROBLEM! Things haven't got any better for Tarascon Kraft mill in the past 2 years! In fact, things have got much worse in 2008 - Tarascon Mill has been 'upgraded by the volunteer noses

from 'medium' to 'strong'. Tarascon Kraft Mill smells so lovely that the French have plonked a brand new high security prison right next door to it.

Rav  
paperscience@bigpond.com

### 3. CREDIBILITY OF GUNNS LTD

Three brief examples illustrate why TAP Into A Better Tasmania believes that statements from Gunns Ltd cannot be relied upon.

3.1 The Chief Scientist of Australia Dr Jim Peacock was prevented from examining risks associated with air quality because it's not part of Commonwealth jurisdiction.

However, in the section on how the pulp mill will affect air quality of the Tamar Valley, Gunns' Southern Star website (<http://www.gunnspulpmill.com.au/factsheets.php>, 7 Sept 2010) still claims that "Dr Jim Peacock concluded: "Operating in compliance with the stringent conditions applied, there is a very strong possibility that the Pulp Mill will operate with an environmentally neutral footprint."

3.2 Despite lack of compliance with RPDC requests, Gunns still claim on their website (<http://www.gunnspulpmill.com.au/factsheets.php> 7 Sept 2010) that "The Pulp Mill will utilise a BAT (Best Available Technology), Elemental Chlorine Free bleaching process that is used in more than 90 per cent of the production of global market pulp and satisfies all relevant environmental guidelines, including those of the RPDC..."

3.3 Gunns claim that the proposed mill is "world-class in every respect" ([http://www.gunnspulpmill.com.au/factsheets/The\\_Facts.pdf](http://www.gunnspulpmill.com.au/factsheets/The_Facts.pdf)).

The web site states "Gunns and its experts have spent more than two years preparing documentation to ensure and demonstrate that its project meets the Emission Guidelines and the RPDC's Scoping Guidelines. The Draft IIS was submitted in July 2006. All matters raised through the RPDC consultant reviews and public input of the Draft IIS have been addressed comprehensively and are presented within the Supplementary Information, submitted in February 2007."

However, Gunns withdrew from the RPDC assessment process in March 2007 just when a letter outlining continuing "critical deficiencies" in information about the proposal was to be sent to Gunns. The office of Premier Paul Lennon stopped the letter from being forwarded to Gunns.

TAP has compiled a list of approximately 200 misleading statements made by Gunns and their representatives. Download the pdf "Is Gunns Reliable?" from [www.tapvision.info/node/509](http://www.tapvision.info/node/509)

## 4. REGULATORY PROTECTION FOR BUSINESS INVESTMENTS

The odour emission guidelines, the Pulp Mill Assessment Act 2007 and the advice from the Minister of Planning all show that there is little protection afforded to the community and business from pulp mill odour. Comments on relevant sections by TAP are in italics.

### 4.1 Nuisance odour emission guidelines (RPDC Section 5.15 Vol 1p115, 2004)

“If the mill operator has not made satisfactory progress (as judged by the Tasmanian regulatory authorities) in limiting nuisance Total Reduced Sulphur odour emissions beyond the mill boundary 2 years after mill start-up, the Tasmanian regulatory authorities shall require the mill operator to commission one or more recognised experts on industrial odour control to review the operation of the mill and to make recommendations to the operator that will remedy the emissions to the standard of international best practice.” (Development of new environmental emission limit guidelines for any new bleached eucalypt kraft pulp mill in Tasmania RPDC Vol 1p115, 2004).

*In summary, the guideline (5.15) says that no action to reduce problem TRS emissions is required for two years after mill start up. For ongoing emissions, an expert is to appointed to investigate and make recommendations. Businesses have to wait at least two years before action is taken. Even then, there is nothing in regulatory provisions requiring the mill to be shut down for exceeding guidelines.*

### 4.2 Pulp Mill Assessment Act 2007

#### Section 11. Limitation of rights of appeal

- (1) Subject to subsection (2) and notwithstanding the provisions of any other Act –
  - (a) a person is not entitled to appeal to a body or other person, court or tribunal; or
  - (b) no order or review may be made under the *Judicial Review Act 2000*; or
  - (c) no declaratory judgment may be given; or
  - (d) no other action or proceeding may be brought – in respect of any action, decision, process, matter or thing arising out of or relating to this Act.
- (2) Subsection (1) does not prevent a review of any action, decision, process, matter or thing which has involved or has been affected by criminal conduct.
- (3) No review under subsection (2) operates to delay the issue of the Pulp Mill

*The Pulp Mill Assessment Act 2007 (PMAA) has deliberately removed legal rights to protection from harm caused by Gunns’ planned pulp mill. In July 2009, three Tamar Valley landowners unsuccessfully asked for reasons for the Government permits in the Supreme Court. Justice Peter Evans’ decision confirmed that Section 11 even removed the rights to obtain information from the government about provisions placed on the mill. A search of common law by legal professionals (Bleyer Lawyers) could find no provisions as extreme as Section 11 anywhere else in Australia.*

### **4.3 Letter from Steven Kons LLB MHA, Minister for Planning, addressing concerns expressed by winery owners.**

Note: the relevant paragraphs are shaded and TAP comments are in italics.

-----  
17 August 2007

Ms Rebecca Wilson  
Holm Oak Vineyards  
11 Westbay Road  
ROWELLA TAS 7270

Dear Ms Wilson

#### **Tamar Valley Wine Route— Pulp Mill Odour Concerns**

As you are aware, the Chair of the Tamar Valley Wine Route, Mr Corey Baker, wrote to me on 29 July 2007 with a series of detailed questions regarding the proposed Tamar Valley pulp mill, and requested that I direct my response to you.

I have sought advice from the relevant specialists, and provide answers to the questions using the headings in the letter.

#### **1 Odour Concerns**

Schedule 2 of the Environment Protection Policy (Air Quality) 2004 [Air EPP] provides design criteria for hydrogen sulfide (H<sub>2</sub>S) and methyl mercaptan (MM) of 0.14 µg/m<sup>3</sup> and 0.84 µg/m<sup>3</sup> respectively. These were conservatively set with due consideration to odour, but they do not represent odour thresholds.

Ambient air quality monitoring data for H<sub>2</sub>S and Total Reduced Sulfide (TRS) is currently available for 11 sites in and around the Tamar Valley. Results from this study are provided in the CSIRO report “Assessment of Background Air Quality Collected by ‘Tamar Valley Air Quality Monitoring Project’ 9 May 2007.” This report is available on the Justice website at <http://www.justice.tas.gov.au>. (Click on Pulpmill Assessment, then SWECO PIC report, and finally CSIRO Background Air Quality report.)

The average measured 14-day H<sub>2</sub>S concentration was 0.1 µg/m<sup>3</sup>, with values ranging between 0.05 and 0.2 µg/m<sup>3</sup>. The background TRS concentration, measured at Rowella using continuous monitoring instrumentation, was 0.15 µg/m<sup>3</sup>. Evidence of the conservative nature of the design criteria is provided by the lack of odour nuisance associated with the existing background levels of H<sub>2</sub>S and TRS.

Your letter raised the question of the proportion of H<sub>2</sub>S and MM in TRS emissions from the proposed mill. This will vary depending on the individual source. Information contained within the Gunns Ltd Integrated Impact Statement indicates that TRS emissions from the main stack is expected to contain approximately 25 % H<sub>2</sub>S and 40 % MM. TRS emissions from the effluent treatment plant are expected to contain 10 % H<sub>2</sub>S and 60 % MM.

While complete elimination of odorous compounds from kraft pulp mills is not currently possible, the Resource Planning and Development Commission emission limit guidelines (the Guidelines) were developed to ensure that these emissions are kept to the absolute minimum achievable using acceptable modern technology.

*Gunns could not explain how it was going to meet the guidelines (see correspondence in appendix).*

The guidelines state that the most sensitive humans can detect, but not necessarily identify, H<sub>2</sub>S at levels between 0.2 and 2 µg/m<sup>3</sup>. Annoyance could be caused by exposure to ambient H<sub>2</sub>S concentrations of 7 µg/m<sup>3</sup> maintained for 30 minutes or more. The three-minute TRS design criterion of 1.5 µg/m<sup>3</sup> (expressed as H<sub>2</sub>S) is therefore considered to be a conservative ambient guideline.

## **2 Environmental Protection Policy Guidelines**

### **Guideline for TRS vs H<sub>2</sub>S and MM**

Odorous gases from kraft pulp mills contain a mixture of gases and are typically measured and regulated as Total Reduced Sulphur compounds (TRS). This is true of all major international standards and guidelines for odours from kraft mills. TRS includes MM and H<sub>2</sub>S but also two other odorous compounds, dimethyl sulphide and dimethyl disulphide. Therefore, the State Environment Protection Policy on Air Quality contains a ground level concentration for TRS for kraft pulp mills. The individual values in the policy for MM and H<sub>2</sub>S do not apply to kraft pulp mills as these gases are included in the measurement for TRS.

Presently available continuous monitoring instrumentation is only capable of measuring total reduced sulfides as a group and not as individual species. It should be noted that while the current generation of TRS monitoring instrumentation is impressive, it still working close to its lower limits when measuring in the vicinity of 1.5 µg/m<sup>3</sup>. Hence, TRS is a better tool for regulation and monitoring odorous compounds than attempting to use the individual reduced sulfide compounds.

### **Reinstatement of limits for H<sub>2</sub>S and MM**

For the reasons outlined above, TRS is the most appropriate indicator for measuring and regulating odours from kraft mills and there are no plans to amend the Air EPP. It is important to note that the ambient guidelines in the Air EPP are not, in any case, regulatory levels, but guidelines for stack design purposes.

## Levels of H2S and MM in TRS

Information on this has been provided above in section 1.

### 3 Monitoring Programme

Continuous monitoring of TRS has already commenced at two sites in Rowella, and will continue uninterrupted through the site preparation, construction, commissioning and operational phases. In addition, the permit conditions for the mill will require odour monitoring and detection capability at the mill site.

#### Commissioning period

The statement that odour issues would be unlikely to occur more than once in eleven years applies to normal mill operations, rather than during commissioning. It was derived by the Pacific Air and Environment (PAE) consultancy on the basis of atmospheric dispersion modelling of TRS emissions. The eleven year period was estimated using conventional probability calculations, and PAE have stated that this is a very conservative estimate.

*Modelling ignores the main source of fugitive odours from numerous pipes, pumps and seals. See confidential letter from RPDC 6 July 2005 in Appendix. The “once in eleven years” claim cannot be reconciled with odour complaints from other modern pulp mills such as Tumut.*

Stringent controls will be applied during the commissioning and mill start up periods to ensure that all atmospheric emissions from the mill, including odour, will be kept to an absolute minimum.

#### Frequency of odours

This is a new mill with a leading edge odour collection and treatments system. Provided it is operated and managed properly it should be able to perform at least as well, if not better than, the best modern mills around the world with respect to odour control. While it would be unrealistic to expect that there will never be any odour events, I expect that it should be able to achieve better performance than the 10 days per year benchmark identified in the Guidelines as world’s best practice in the emission limit guidelines.

*This appears to be a statement of hope rather than an intended outcome of good planning.*

#### Risks during start up

The main method of destroying odorous compounds is incineration in the Recovery Boiler. During start up (and shut down) it will be important that there are alternative means for destroying odours when the Recovery Boiler is not available or not at full operating temperature and start up.

The main method of destroying odorous compounds is incineration in the Recovery Boiler. During start up (and shut down) it will be important that there are alternative means for destroying odours when the Recovery Boiler is not available or not at full operating temperature. The proposed Gunns mill has two dedicated back up odour incinerators, which will be kept “hot” so that they can receive and destroy odours immediately. The Power Boiler will be used as a back up to destroy dilute odour streams when the Recovery Boiler is not available. The “triple redundancy” odour treatment system at the proposed Gunns mill is a leading edge approach to odour management.

*The triple burn system does not deal with “98%” of the sources of emissions according to the RPDC.*

#### **Availability of monitoring results**

The mill operator is required to include the results of all odour monitoring within their annual environmental performance report. Wider reporting requirements are currently being considered.

#### **4 Shutdown and Maintenance**

I am advised that the permit conditions will require that facilities for odour treatment must be available at all times during start up and shut down.

With the exception of the wastewater treatment plant, all dilute sources of odour emissions, often referred to as fugitive emissions, will be collected and treated.

*Gunns could not explain to the RPDC how this was to be done. See RPDC letter in the appendix.*

Odours from the wastewater treatment plant and the treated dilute odour streams were included in the PAE modelling referred to in section 1, above.

#### **5 Fugitive Emissions**

As set out above, the dispersion modelling of mill odour took emissions from the main mill stack into account and explicitly included expected emissions from all other known sources including the effluent treatment plant.

It is conceivable that leakages or ruptures in pipes or ducting could also cause fugitive emissions in parts of the mill where there is not an odour collection system. These are impossible to accurately predict and were not taken into account in the modelling.

*This statement by the Minister invalidates Gunns’ claim re only one odour incident per eleven years is expected.*

#### **6 International Benchmarks**

I am not aware as to whether the Stendal Mill has a community odour consultation panel or whether it originally promised to be completely odour free.

## **7 Monitoring and Redemption**

While there will be requirements to monitor TRS, the ambient level of 1.5 µg/m<sup>3</sup> set in the Guidelines is not intended as a regulatory level, but for stack design purposes only.

The Environmental Management and Pollution Control Act 1994 (EMPCA) contains two offences that could result from excessive TRS emissions. An “environmental nuisance” is defined as emitting a pollutant that unreasonably interferes with a person’s enjoyment of the environment. The maximum penalty for causing an environmental nuisance is \$10,000. If it can be proven that the nuisance was caused “wilfully” then the maximum penalty is \$30,000. If the nuisance is “of a high impact or on a wide scale” then it may be regarded as material environmental harm. The maximum penalty for causing material environmental harm is \$120,000 while if it can be proven that the pollution was reckless or intentional then the maximum penalty is \$250,000.

The response to emissions of TRS in excess of permit conditions or ambient guidelines will depend very much on the circumstances – the level of any exceedences, their causes and their effects. There is no pre-defined number of allowable exceedences. However, as you are aware, the Guidelines suggest that world’s best practice would be to achieve a level of no more than 10 days per year in which there are escapes of TRS odours beyond the mill boundary.

*The guidelines are not intended to regulate excessive pulp mill emissions and may not lead to prosecution.*

Tourism operators will have all of the normal recourses of law and our system of government available to them if they believe that the mill is unfairly impacting on their industry.

*Section 11 of the Pulp Mill Assessment Act 2007 blocks the normal recourse to law to seek redress.*

## **8 Chlorinated Organic Compounds**

An exhaustive literature survey found no evidence of air emissions of chlorinated phenols from kraft pulp mills causing cork taint. Chlorinated phenols are present within the liquid effluent stream of kraft pulp mills rather than within atmospheric emissions. A review of the causes of cork taint suggests that the primary causes are cork trees becoming contaminated with chlorophenols originating from pesticide usage and through a reaction on the cork between fungi or bacteria, and phenols and chlorine. It is thought that the chlorine is derived from contact with chlorine contaminated packaging and/or the use of chlorine within the winery.

As regards the issue of wine taint, the literature survey did not find any information that linked pulp mill emissions to the incidence of wine taint. It is noted that the 2006 annual report of the

Australian Wine Research Institute reported a correlation between levels of 2,6-dichlorophenol and wine taint. The report did not hypothesise the origin of this chlorinated organic compound. The literature survey however did establish that there are over 1500 naturally derived organochlorines (Gribble, GW., 1996. The diversity of natural organochlorins in living organisms. Pure and Applied Chemistry, 9:1699-1712).

Given that the possible link between 2,6-dichlorophenol and wine taint has only recently become apparent, I would appreciate any information that you could provide that may establish a link between atmospheric emissions of chlorinated organic compounds and wine taint.

I hope that the information provided above addresses the concerns that you have expressed in your letter.

Yours sincerely

Steven Kons LLB MHA, Minister for Planning

## APPENDIX

Two confidential letters between the RPDC and Gunns provided to TAP by Dr Raverty

- From J Green, Executive Commissioner RPDC, to Gunns Ltd 6 July 2005, that the proposal does not use Accepted Modern Technology and also lacks controls on fugitive TRS odour emissions.
- From Les Baker, for John Gay Gunns Ltd, to J Green RPDC 12 July 2005.