

## **TOXIC HEAVY METALS TASKFORCE TASMANIA**

by Kay Seltitzas Hobart 1st December, 2013

### **MMG ROSEBERY MINE TOP TOXIC POLLUTER IN TAS**

### **EXPERTS BACK NEW HEALTH INVESTIGATIONS AT TASMANIAN LEAD MINING TOWN**

The Toxic Heavy Metals Taskforce Tasmania (THMTT) has welcomed recent statements made by Professor Ray Kearney from The University of Sydney Medical School in support of the need for new public and environmental health investigations in Rosebery.

The THMTT is pleased that Professor Kearney's expertise in health impacts from air pollution has backed numerous questions we raised over the conduct of the Department of Health and EPA investigations into health impacts from MMG's Rosebery Mine emissions in 2008-2010".

Professor Ray Kearney has stated that the Department of Health and the EPA:

***"• Failed to respond appropriately to the monitored measurements and blood/urine levels of several Rosebery residents diagnosed with heavy metal poisoning by Dr Andreas Ernst***

- Derived results from the inappropriate application of methods***
- Failed to incorporate proper factors for valid readings***
- Skewed the results to a pre-determined outcome***
- Removed data that was inconveniently high***
- Adopted standards that are known to be flawed or inappropriate***
- Deliberately misled in the interpretation and analysis, as well as in data presentation***
- Ignored the numerous, clear and specific directives to address the alleged toxic impacts or to amend the study design for scientific stringency and methodological validity"***

Professor Kearney has also stated in a Media Release that:

***'I believe there is not only an obligation of 'due diligence' by the Tasmanian Government Regulatory Authorities (Environment Protection Authority, Health etc) but also on the subject mining company(s) to implement proven measures to clean and detoxify the polluted airstream arising from the process of mining/transporting toxic heavy metals. Such measures would be consistent with the Precautionary Principles.'***

The failure of the DHHS/EPA to rigorously examine dust emissions from the mine and drinking water quality as major pathways of exposure for metal toxicity and to conduct a thorough assessment of cumulative risk exposure for the residents of Rosebery is a damning indictment on their lack of independence and integrity.

### **ABC7.30 Report exposes MMG Rosebery Mine operating licence outdated**

On Tasmania's ABC7.30 Report on 29<sup>th</sup> November, Australia's leading Lead expert Professor Mark Taylor said that the emissions standard applying to the MMG Rosebery Mine's operating licence does not match up with international standards and is outdated.

On the program Professor Taylor said **“They have a level of 1.5ug/per cubic meter of lead in air as a 90 day rolling average and they've met that guideline” and went on “ That's quite a high level, if you think what the national standard is it's 0.5, it's one third, 0.5ug/cubic metre averaged over the year”**.

In 2008 the Queensland Government imposed the national standard on Mount Isa Mines. From comments given to the ABC7.30 Report, Director of the EPA Alex Schaap maintains his denial about the necessity to introduce best practice emissions standards for mining corporations in Tasmania.

The standard that they are using in Rosebery is the standard that was reduced in America by a factor of 10 in 2008,' said Professor Mark Taylor.

### **Satellite measurements show MMG Rosebery Mine emission problem**

Also interviewed on the program was Aron Gingis, air quality researcher from Monash University in Melbourne and Hebrew University in Jerusalem, who said that based on satellite measurements he could see “that both the miners and the government authorities are clearly covering it up”.

### **National Pollutant Inventory data for Tassie's top toxic polluter**

**The latest National Pollutant Inventory (NPI) data (estimates) shows that MMG Rosebery Mine is the top *high hazard* toxic polluter in Tasmania.** Followed by MMG Mine is the Port Latta Pelletising Plant, Nyrstar Hobart Smelter, Railton Cement Works, Temco Bell Bay and Renison Bell Tin Mine.

**The NPI data shows that MMG Rosebery Mine emits into a closed airshed over the town:**

***\* 500 kg per day (average) of combined zinc, (mainly) arsenic and lead***

***\* 170, 000 kg pa of zinc, and is the highest zinc emitter in the nation, with Mt Isa second at 99, 000 kg pa***

***\* 1, 300 kg pa of arsenic, 200 kg pa less than Renison Bell, with Temco at 1, 800 kg pa the top arsenic emitter in Tasmania***

*\* Only 100 kg pa less arsenic than in Port Pirie*

*\* 11, 000 kg pa of lead - just below one quarter that of Port Pirie at 46 000 kg pa*

### **WHO declares air pollution a cause of cancer**

On 17 October this year, the World Health Organisation's Agency for Research on Cancer declared air pollution in its entirety as a cause of cancer, like tobacco smoke, asbestos and arsenic.

Experts have now classified particulate matter as a carcinogen – the MMG Rosebery Mine emits over 220 000kg of 10um particulate matter every year.

**A West Coast Health assessment in 2000 found that West Coast resident ‘admissions to public acute hospitals for treatment of bronchitis, emphysema and asthma was elevated by more than 35%’.**

We have been appalled to discover that after numerous Environmental Protection Notices served by the EPA on MMG Rosebery Mine over the last decade requiring improvements to dust monitoring and control, only last month in October did the mine supply the EPA with its first full year of dust monitoring data. But, EPA Director Alex Schaap has withheld this information even though it is in the public interest that all dust monitoring data be released publicly.

### **Acid Mine Drainage a concern for water infrastructure**

A researcher with the Toxic Heavy Metals Taskforce Tasmania (THMTT) took photographs (attached) of leaks from a water meter in Rosebery last Thursday 26th November when visiting the town to inspect the water supply infrastructure.

Outside a house in Beech Drive in the Primrose area a leaking pipe was discovered flooded by Acid Mine Drainage (AMD) surrounding a TasWater water meter.

A number of sources have told us that TasWater have had to undertake major repairs to water infrastructure in Rosebery as a result of long term damage from AMD caused by the mine.

We have serious concerns about pressure problems in the Rosebery water supply system which have occurred over many years leading to ingress of leached metals from AMD damaged pipework leading to contamination of the reticulated water supply and infrastructure.

It is well understood that in the mine remediation industry there is no solution to the long term effects of acid mine drainage on the environment.

### **Acid Mine Drainage thesis on the future for Rosebery**

Cindy Hale in her Master of Environmental Science and Hydrology (Melb Uni 2001)

thesis Acid Mine Drainage at Rosebery Pb-Zn Mine Tasmania as:

***'On a world scale, Rosebery ranks highly in terms of volume of acid water generation and metal loading...The most contaminated AMD area results put Rosebery in the high acid and extreme metal group of AMD mines.'***

Lee Evans Phd thesis in 2009:

***Groundwaters in wet, temperate, mountainous, sulphide-mining districts: delineation of modern fluid flow and predictive modelling for mine closure(Rosebery, Tasmania).***

Lee explains much about Acid Mine Drainage that residents of Rosebery and the Tasmanian community would find of interest:

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***Results indicated that AMD contamination was evident emerging from or within: (i) assay creek; (ii) the Rosebery open-cut mine; (iii) the Rosebery underground mine; (iv) Rosebery Creek; (v) the Stitt River; (vi) Primrose creek; (vii) filter plant creek; (viii) the tailings facilities; (ix) abandoned mine workings; and (x) mine-waste material used as fill throughout the catchment .....***

and in Key Findings Page 270, 271,

***The results indicated that mined materials at Rosebery have the potential to produce a significant volume of acid mine drainage. At the Rosebery mine, metal contaminated waters originate from localised point sources of sulphides, such as tailings dams, waste rock, and mine workings. Waters are contaminated by AMD, resulting in elevated levels of H<sub>2</sub>SO<sub>4</sub> as well as the metals Pb, Zn, Cu, Fe, Mn, Mg Cd, Al, and Ca.***

***The numerical modeling suggested that the potential area of discharge for contaminated mine waters is far more limited in extent than was previously believed by mine personnel. This area is limited to: (i) areas along the Stitt River and Rosebery Creeks, which are already experiencing significant acid mine drainage contamination; and (ii) a very limited area south and north of the Pieman River's confluence with the Stitt River.***

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***Along with the mine adit, Rosebery Creek and the Stitt River have been identified as the most significant potential long term, high volume, and high contaminant***

*groundwater discharge locations within the catchment.*

### **7.5.7 Remediation**

*Given the findings of the present study, options for remediation of post decommissioning waters need to be investigated. Depending upon the fate of the Rosebery community beyond the mine life, some residential areas of the Primrose and Rosebery townships could provide a large area for a monitoring or groundwater interception network, and even a potential location for an AMD treatment facility (i.e. a passive wetland facility, or an active treatment plant) prior to discharge into the receiving environments. Relatively level, pre-disturbed areas such as these can be otherwise uncommon in wet, temperate, mountainous, sulphide-mining environments.*

Earlier this year MMG invited residents to come to the first community meeting on the social impact of the mine closing but no mention or discussion was had about current or future impacts for property owners or remediation proposals for Acid Mine Drainage in Rosebery.

### **MMG's 5 concentrate spills from Feb to May this year**

The leaking water meter is in the same area of Rosebery where high Lead levels have been found in the drinking water supply and not far from the Filter Plant where 5 concentrate spills from MMG's pipelines have occurred between February and May this year alone.

A spill on the 17th March was a level 3 spill from the lead/copper return pipe and for some unknown reason the EPA is still investigating this incident seven months later.

MMG Rosebery Mine put in an objection to DPIPWE over a Right To Information request that the Taskforce submitted several months ago about investigations into drinking water contamination in Rosebery .

DPIPWE overruled MMG's objections but we are still waiting to receive further documents, including the *Preliminary AMD Management Strategy Flow Diagram* previously withheld pending a possible appeal by MMG to the Ombudsman.

### **RTI documents show high Lead levels not acted on in 2011**

RTI documents have revealed that high Lead levels were first discovered in monthly samples taken from the drinking water supply in 2011 - levels found were 11.3ug/L in May and 17.3ug/L in June.

**In 2011 the Director of Health Dr Roscoe Taylor failed to warn residents of**

## **Rosebery of these two consecutive Lead levels that breached Australian Drinking Water Guidelines".**

The community need to understand that there is **no safe limit for Lead in the human body.**

The Health Department only took action on Lead contamination of the water supply this year and commenced a new round of weekly testing in April.

**Just how long people have been drinking water poisoned with Lead in Rosebery will never be known.**

The Australian Drinking Water Guideline for Lead is 10ug/L and the highest Pb levels found in samples in Rosebery taken on 21 May, 2013 were:

Howard Street - Pb 53.1 and at Sassafras Street - Pb 49.9 and at Huon Street - Pb 18.7.

### **TasWater no priority to cover water tanks**

Our Taskforce were shocked that Mike Brewster from TasWater told ABC7.30 Report on Friday night that it is not a priority to put a cover on the Mount Black Reservoir which would prevent contamination from the mine's toxic emissions".

RTI documents show that water in the Mount Black Reservoir has Lead levels over 4 times higher, 2.3ug/L, than Lead levels found in the Mountain Creek raw water supply, 0.5ug/L before it reaches the Howard Street supply area.

### **Director of Health Dr Roscoe Taylor must be suspending pending investigations**

The THMTT has called on the Health Minister, Michelle O'Byrne, and the Environment Minister, Brian Wightman, to insist that the Director of Health, Dr Roscoe Taylor, and the EPA Director, Alex Schaap, explain, as a matter of urgency, how they managed to oversee such an appallingly deficient investigation.

THMTT is also calling on all members of the Tasmanian parliament to speak out about this injustice, out of fairness to the people of Rosebery.

The actions of the DHHS and the EPA amount to little more than discrimination against a community whose livelihoods depend on a mining corporation that has not been regulated properly by the EPA. Both the EPA and the Department of Health have turned a blind eye to the impacts on human health from MMG Rosebery Mine's toxic emissions.

Statements by these national experts now provide our Taskforce with the support we need to call on the Premier Lara Giddings to establish:

- **a review into the conduct of the DHHS/EPA investigation and the suspending of the Director of Health Dr Roscoe Taylor until the outcome of the investigation is publicly released**
- **a review into the EPA's application of best practice emission standards for all polluting industries in Tasmania**
- **a review into the capacity and transparency of the EPA to independently monitor, regulate and enforce compliance of toxic polluters in Tasmania**
- **a new independent public and environmental health investigation in Rosebery**

There must be transparency about emissions from our toxic polluters in Tasmania as the community have a right to know so as to protect their own health – especially the health of their children.