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Re: Proposed waste incinerator at Woodlawn, Tarago

Please find set out below a submission in respect of the proposal to locate a high temperature waste incinerator at the existing waste disposal facility at the abovementioned site. Research into the potential effects of an approval for this proposal has revealed some serious concerns in respect of water contamination and especially in respect food production not only within the region but also in the wider agricultural industry, effects that would be to the detriment of the State and the Nation in respect of food export.

Site Selection:

The proposal to site a waste incinerator at the Woodlawn Eco Precinct raises the question of why there? The answer is probably that there is a waste "bioreactor" facility already in place at this location and therefore much of the infrastructure is already in place. However, a further question needs to be considered, that is, why was the waste "bioreactor" facility located there in the first place?

The answer to that is blatantly obvious, that is, because there was a very large hole left over from mining operations at that location and as is often the case in such waste disposal facilities the site has been used as a matter of convenience not as a result of selection after proper consideration of all the necessary issues involved. It would appear that the location of the proposed waste incinerator is also a matter of convenience and more likely profit driven.

It is also on the border of two Local Government Areas that is, at the southern extremity of Goulburn-Mulwaree LGA and the northern extremity of Queanbeyan-Palerang LGA thereby providing the added advantage for potential bureaucratic "shuffling" of complaints or concerns from local residents from one LGA to the other. Experience has shown that reporting an issue to the operator receives a sympathetic response but little else. Reporting an issue to the Environmental Protection Authority (EPA) appears to result in a somewhat less sympathetic response only and as the operator is a large multinational billion dollar company headquartered in France the imposition of fines or local regulations appear to be either seen as normal "operating costs" or just ignored.

Therefore, given the past performance of the operator who appears to have little or no legal footprint in this country there are very serious implications to be considered if this proposal was to proceed especially in respect of food production and water contamination.

Contaminates

Dioxins: One of the main contaminates of concern that will be discharged from this type of facility are Dioxins and while the proposed operators give assurances that these emissions will be kept within stated guidelines and levels the bottom line is that there is no safe level for

these contaminates and experience has shown that while every effort may be made to maintain the required safeguards malfunctions, mistakes, accidents and natural phenomena still happen. It is not a case of "if" it is a case of "when" they happen. Dioxins are cumulative poisons that build up in the fatty tissues of animals including humans who as a result of being at the top of the food chain tend to accumulate more than most other creatures on the planet.

Dioxins (polychlorinated dibenzo-p-dioxins) are persistent organic pollutants (POPs) and "one of the most toxic chemicals evaluated by science" [(1)].

Key Facts [(2)]

Dioxins are a group of chemically-related compounds that are environmental pollutants (POPs).

- Dioxins are found throughout the world in the environment and they accumulate in the food chain, mainly in the fatty tissue of animals.

- More than 90% of human exposure is through food, mainly meat and dairy products, fish and shellfish. Many national authorities have programmes in place to monitor the food supply.

- Dioxins are highly toxic and can cause reproductive and development problems, damage the immune system, interfere with hormones and also cause cancer.

- Due to the omnipresence of dioxins, all people have background exposure, which is not expected to affect human health. However, **due to the highly toxic potential, efforts need to be undertaken to reduce current background exposure**.

- **Prevention or reduction of human exposure is best done via sourced-directed measures**, i.e. strict control of industrial processes to reduce formation of dioxins.

A look at the tragic events that occurred and are still occurring in Vietnam after the war where Dioxins were used as a defoliant is stark testament to the long term effects of Dioxins on human health.

Other persistent toxic emissions include mercury (Hg), polycyclic hydrocarbons (PAHs) which can travel great distances. Less persistent pollutants such as acid gases, Nitrogen oxides (NOx) and Sulphur Oxides (SOx) can still be toxic and impact on public health especially at a local and regional level. Nitrogen oxides are one of the reasons why catalytic converters are fitted to motor vehicles.

Mercury (Hg) is a toxic heavy metal which can have serious public health implication as demonstrated by the emergence of "Minamata Disease" in Japan in the past. Waste incineration has been shown to be a high source of this pollutant.

Tarago is located in a region subject to frequent fog and therefore an increase in the potential for pollutant distribution and deposition locally and in the wider region. It is also a region in which extensive grazing and cropping operations are conducted along with many other specialist food producing operations and in close proximity to major population centres such as Canberra (48kms) and Goulburn (30kms). As a result there is the potential for very serious

public health concerns as a consequence of direct contamination. The proposed site is 850m above mean sea level in a shallow basin and subject to frequent fog, low cloud and high winds, evidenced by the large number of wind driven generators surrounding the site. It is therefore an excellent configuration for the collection and distribution of airborne particulates and condensates as well as being located in a key position in respect of water supply contamination. Not only on a local level in respect of rainwater recovery systems used on most rural properties in the region but also in respect of the wider southern area of the state and to the Sydney Basin.

For example:

- Crisps Creek runs parallel to Collector Road at the proposed site at a distance of around one kilometre or slightly less from the proposed site. This creek empties into the Mulwaree River just south of Tarago near to where the current road/rail transfer facility for the "Bioreactor" is located. The Mulwaree River in turn empties into the Wollondilly River which becomes in turn the Nepean River and then the Hawksbury River on which is located the Warragamba Dam the main water supply for greater Sydney. There is already the potential for contamination of this important system through the movement of ground water from the current operation. The inclusion of incinerated residue only exacerbates the danger.

- Collector (25kms) is located on the eastern side of the Cullarin Range and is called by that name because it is the collection area of the waters that feed the Lake George system with the lake itself less than 10 kilometres from the proposed site as is the head waters of Currawang Creek which also feeds into the lake. On the western side of the Cullarin Range are Lerida Creek, Meadow Creek and the Fish River which along with their tributaries form the Upper Lachlan Region. These flow into the Lachlan River to eventually find their way into the Wyangala Dam.

- The head waters of the Yass River at approximately 30kms distant and is also of concern as this flows into the Burrinjuck Reservoir and thence into the Murrumbidgee River.

- Bundong Creek just east of Lake Bathurst (6 kms) flows into the Shoalhaven River system which in turn flows into the Tallawa Dam near Nowra.

In summary **it would be difficult to find a worse place to site such a facility as the one proposed**. The emissions from the proposed incinerator have the potential to contaminate not only the National Capital, a significant area of grazing and cropping land and the water supply to the individual homestead rainwater recovery systems in the region by direct deposition but also the water supplies to major population centres such as Canberra, Goulburn, Yass, Nowra, Wagga Wagga and many more communities throughout the southern area of the state as well as the state capital of Sydney with its five million or so inhabitants. There is also the potential to contaminate one of the major food producing areas in the nation that is, the Murrumbidgee Irrigation Area (MIA).

Waste Reduction: Like energy matter cannot be created nor destroyed but again like energy it can be converted into different forms such solids, liquids and gases. In the case of waste materials both solids and liquids are the most common in what is generally referred to as

"municipal waste". However, if matter cannot be destroyed the use of incineration as a means of dealing with this matter the notion of "waste reduction" is totally false.

The change is one of volume not mass. The mass remains the same regardless of what process is used. In the use of incineration as a means of waste reduction the volume of waste going in to the incinerator is usually compared with the mass of fly ash coming out. Other substances such as scrubber and/or precipitator residue, airborne particulates and gases are usually not included in the calculation which if they were would paint a very different picture than that which is generally espoused. That is, if all the components of the incineration process were included the mass of input would equal the mass of output the only change is in the volume. The same constituent components will still be there including the hazardous pollutants and toxins of concern only after incineration they become more concentrated and in some cases chemically changed and therefore more toxic than when they went in. The end result is that we are left with an even more toxic "waste" to deal with than that which we started with. Burying this toxic cocktail in land fill does not solve the problem but raises the issue of groundwater contamination and just moves it on for future generations to deal with. Not a good legacy.

Incineration is not the answer to waste reduction but the path to a much more difficult problem. **The key to waste reduction is not at the disposal end it is at the source end** and funding for incinerators and the like is probably better spent reducing the production of waste at its source rather than dealing with it after production.

While the proposed incinerator may be seen as a political expedient in terms of employment opportunities and local growth it is a "poisoned chalice" as demonstrated by overseas experience in the increase in long term health issues in workers and residents in close proximity of such facilities. Therefore, consideration of both the cost of those outcomes both in hard cash and social impacts and the political backlash that will follow needs to be under taken with due diligence. It may be a convenient and profitable solution to a current problem but it will be a ticking time bomb for future generations with tragic consequences I for one would not like to be one of those that allowed such an irresponsible act with such obvious negative consequences to go un-noted or un-opposed.

(1) Zero Waste Oz – Incineration and air toxics
(2) World Health Organisation – Dioxins and their effects on human health

Yours faithfully,

Alan Cracknell

c.c.

Dominic Perrottet MP	Premier
Wendy Tucherman	Minister for Local Government
Kevin Anderson MP	Minister for Lands and Water
James Griffin MP	Minister for Environment and Heritage
Dugald Saunders MP	Minister for Agriculture
Paul Toole MP	Minister for Regional NSW