New South Wales Government
Independent Planning Commission

TERRANCE COOK		**OBJECT**	Submission ID: 211636
Organisation:	*N/A*	Key issues:	*Social impacts,Traffic,Other issues*
Location:	*New South Wales 2576*		
Attachment:	*Attached overleaf*		

Submission date: 11/4/2024 9:16:42 PM

I object to this project to close to human habitation and wild life open to failure of containing toxic waste

I am writing to express my strong objection to Plasrefine Recycling Pty Ltd constructing and operating a plastics recycling and reprocessing facility at 74-76 Beaconsfield Road, Moss Vale NSW in the Wingecarribee local government area.

IT IS NOT THE RIGHT SITE

This facility is too close to a residential area and a significant research centre, the Australian BioResources (ABR) Pty Ltd. It has no buffer zone and is within a critical water catchment zone that supplies drinking water to Sydney. I am deeply concerned that the approval of such a facility poses significant risks to the health, environment, safety, quality of life and economy of our community.

1. Health Risks:
Microplastics, nanoplastics, POPs, PFAS, phthalates, bisphenols, to name a few.
Plastics contain more than 13,000 chemicals, with thousands of them known to be hazardous to human health. The emissions from plastic recycling facilities and their harmful chemicals and particulate matter are well documented and pose potential health hazards to our children, elderly and residents with respiratory conditions. NSW Health don't have any comments on this proposal, they should have plenty of comments.

2. Environmental Impact on the Water Catchment Area:
The proposed site is within a crucial water catchment area, which supplies drinking water Sydney. The runoff and waste by-products from a plastics recycling plant will introduce microplastics, chemicals, and other pollutants into the water supply, harming aquatic ecosystems and potentially contaminating our drinking water. Any breach in environmental safeguards could result in long-term damage which would be difficult, if not impossible, to reverse.

3. Impact on Property Values and Quality of Life:
The noise, traffic, and industrial activity associated with this type of factory are incompatible with the character of our neighbourhood. Increased heavy vehicle movement will disrupt our community and endanger local pedestrians, especially children. Additionally, the perception of pollution risks has already decreased property values, affecting the investments of many residents who have built their lives here.

The proposal does not fit in with $270,000 Southern Highlands Innovation Park (SHIP) Master Plan that the State Government funded.

4. Economic Impacts:
The proposal will be eligible for government grants, I do not consent to my taxes contributing to the proposal in this location.
There will be increased costs in road maintenance as a result of the excessive number of trucks on local roads, the ratepayers won't want to bear these costs.

Property prices have already been affected as well as residents' retirement funding.

5. Fire:
This site will be 3 times the size of a Bunnings store with an inadequate buffer zone. There have been numerous fires at waste recycling facilities that are difficult to contain. We have 3 fire trucks in the Southern Highlands with any required assistance a minimum of 45 minutes away if available. A major fire at this site is more likely to be left to burn out due to size, access, lack of resources and volume of flammable stock resulting in toxins polluting the air and waterways. Fire and Rescue NSW tell us that any toxic smoke would rise directly upwards yet strangely Moss Vale is well known for the winds that occur. Even if it did rise up, where do the toxins end up?

6. Inadequate Planning and Alternatives:
"The Department considers that these benefits can be realised without significant amenity or environmental impacts and therefore, considers the development is in the public interest and could be approved, subject to conditions."

It is not in the public interest, far from it.

The fact it will require significant mitigation and conditions is a strong indicator of its flaws in the first instance and who will monitor and regulate these conditions. What business/machinery operates 100% perfect 100% of the time? When machinery and/or operators fail the consequences will be devastating.

Whilst the proposal is technically permissible, it is risky in such a fragile environment. The Department has not stepped back and applied any common sense whatsoever. The government should be taking a precautionary approach and look at the bigger picture. This is not the right site in the government's fight against the plastic problem.

Alternative sites that do not threaten residential areas or natural resources should be investigated by the applicant. Ms Wendy Tuckerman MP – Member for Goulburn offered to assist in the search for a more suitable location that was declined.

Thank you for your attention to this matter. I trust you will consider the concerns of my community and take appropriate action to protect our environment and quality of life.

Incineration

Incineration technologies

Plasma Arc operates at a much higher temperature (between 3000°C and 15000°C) creating a thermal plasma field by directing an electric current through a low pressure gas stream. The intense high temperature zone can be used to dissociate the waste into its atomic elements by injecting the waste into the plasma, or by using the plasma arc as a heat source for combustion or pyrolysis.

Typically plasma arc has been proposed in Australia for the destruction of hazardous waste rather than the generation of energy from municipal waste. However, Nufarm Australia has been operating a Plascon plasma arc unit at Laverton in Victoria to destroy chlorinated pesticide waste since 1992 while generating electricity. Dioxin emissions have been detected in the emissions.

Traditional mass combustion incinerators tend to operate at much lower

temperatures (typically 750°C -1000°C) and burn waste in the presence of uncontrolled levels of oxygen with no pre-treatment of municipal waste (although some facilities remove a percentage of the recyclables from the waste stream). Those incinerators that generate energy use the heat from combusting waste to generate steam for turbines to generate power

Gasification and pyrolysis use thermal treatment to break down waste at high temperatures. The major difference between these incinerators and 'old' incinerators (sometimes referred to as 'combustors') is that these technologies break down thewaste in a low oxygen environment. These technologies are not new as gasification systems have been in use since the mid19th century and pyrolysis since the 1950s.

While these processes have been subject to incremental changes over time, there have been no fundamental process changes for decades. Both of these technologies have the same pollution control devices available to them as combustion incinerators and experience similar problems in controlling their emissions.

The high temperature, low-oxygen process breaks the waste down into solid, liquid and gas residues. The gas component is a combination of hydrogen (around 85%) carbon monoxide, and low levels of carbon dioxide, nitrogen, methane and some hydrocarbon gases. The combination of gas is referred to as 'syngas' which is combusted in a secondary process to generate electricity.

In order to generate syngas the waste used in these processes must be rich in carbon and includes paper, plastics and organic matter such as kitchen and garden waste. The syngas can be used to generate energy or as a feedstock in the petrochemical industry.

Gasification allows the use of low levels of oxygen but not enough to cause combustion of the waste. Pyrolysis heats and degrades the waste in the absence of oxygen. Both processes usually operate at or above 750°C. Some pyrolysis units may also engage a secondary gasification system to extract higher levels of syngas.

Virtually all gasifiers and pyrolysis plants have four stages of operation:
1. **Waste Feedstock preparation**: The plant may take mixed waste that has had low calorific value materials removed (sand and concrete) and some recyclables such as glass extracted by a Materials Recovery Facility (MRF). Alternately the feedstock may be a form of Refuse Derived Fuel (RdF) from a Mechanical and Biological Treatment (MBT) plant.
2. **Heating the waste**: Thermal treatment of the waste in a low oxygen(gasification) or nil oxygen (pyrolysis) environment to generate syngas, oils and char or ash.
3. **Gas filtering**: to remove some (but not all) of the hydrocarbons, dioxin and particulate.
4. **Use syngas for energy generation**: Electricity can be generated via a steam turbine or gas engine or potentially used for combined heat and power (CHP).

Track record of gasification, pyrolysis and plasma arc.

Despite the claim that these technologies are proven and reliable, they are not widely used in the waste management industry and have experienced serious problems with pyrolysis in particular, found to create considerable amounts of dioxin and furans when burning waste.

A 2008 US study[1] surveyed a large range of gasification and pyrolysis technologies and reported that:

- they are unproven on a commercial scale for treating MSW in the United
- States
- the residuals from the process can be hazardous,
- they require pre-treatment of waste, and
- are more expensive than other technologies.

Of the few facilities that have been operational in the US and Europe, many have been plagued with operational problems, serious emissions breaches or financial failures.

[1] Foth Infrastructure & Environment, LLC (2008) *Updated Research Study Gasification, Plasma Ethanol and Anaerobic Digestion Waste Processing Technologies*. Prepared for Ramsey/Washington County Resource Recovery Project. p. viii