

I object to the proposed Veolia waste incinerator for the following reasons :

1/ Many studies have found overwhelming evidence that the damage incinerators cause to humans, and to the environment. Dioxins and furans, a byproduct of incineration and known cancer causing agents, are deadly to people and animals. As are the persistent organic pollutants that the scientific community are regularly identifying, that are being produced during the incineration process.

Also being produced are ultra fine particles that are so small (PM 2.5) they are unable to be successfully monitored or captured. Confirmation of this was found by Howard C.V. The health impacts of incineration. Proof of evidence submitted to East Sussex, and Brighton, and Hove Local Plan Public Enquiry, 2003. Veolia themselves stated that the collection efficiency of incinerator bag-house filters were 95-99% for PM10's, 65-70% for PM2.5, and 5-30% for particles smaller than 2.5 microns.

2/ Nano particles are capable of travelling to all areas of the body. They are even able to cross to the fetus via the umbilical cord. Despite this Australia has no state or national standards to protect the community from these nano particles and other pollutants. See study 1/ Miyake, Y., et al (2005) Relationship between distance of schools from the nearest municipal waste incineration plant and child health in Japan. European journal of Epidemiology 20 1023 - 1029.

3/ Given that particulate matter is very small solid and liquid particles suspended in the atmosphere it can, and does, travel long distances from the original source of the pollution. In a study by Mao and Associates (Mao, et al 2007) it was found that the concentrations of PM2.5 and PM10 down wind of the incinerator were significantly higher (between 220% and 700% higher) than the study area upwind of the incinerator. This indicated that the air had "significant contamination by air pollutants emitted" from the waste incinerator. The fact that the facility was equipped with a modern pollution system is even more concerning, and indicates that the incinerator represented a significant health problem for all residents that are down-wind of the facility.

4/ As well as dioxins, furans, and persistent organic pollutants, particulates from incinerators also carry toxic metals. These particulates are so small that they are able to be inhaled into the lungs, from there they travel to the blood stream and travel throughout the body. As already stated, they are able to cross the placenta, the blood brain barrier, and accumulate in the organs causing irritation, illness, and/or even death. This is a documented fact and is discussed at length on the NSW Department of Planning and Environment's website. Exposure to particulates in the short term can cause eye, nose, and throat irritations, people with asthma and bronchitis get progressively worse, as do people with pre-existing heart conditions. To such people particulate exposure can lead to an irregular heart beat & heart attack. Long term exposure causes decreased lung function, the development of respiratory & cardiovascular diseases in previously healthy people, a faster progression of these diseases, early death, cancers-especially lung cancer, mental health disturbances, Alzheimer's, the onset of developmental disorders like Autism, interference with the development of a foetus, premature and underweight babies, interference with the onset of male and female sex hormones, interference with thyroid hormones, & the immune system.

The NSW Government Health website states that "there is sufficient evidence that exposure to PM2.5 over long periods (years) can cause adverse health effects." They go on to say that short-term exposure can increase the severity of pre-existing conditions, and long-term exposure will likely cause disease, escalate the progression of a disease, and reduce life expectancy. They also note that "despite extensive epidemiological research, there is

currently no evidence of a threshold below which exposure to particulate matter does not cause any health effects.”

In their study L M Brown and his colleagues found that “long-term exposure to even low concentrations of fine particles may be associated with reduced life expectancy” [Brown L M, Collings N, Harrison R M, Maynard A D, and Maynard R L. Ultra-fine particles in the atmosphere: introduction. Philosophical Transactions of the Royal Society of London A 358 (2000) 2563-2565].

5/ Aside from breathing these toxic compounds directly into our lungs, we can also take them into our bodies by locally produced food, or from water that has been contaminated by the air emissions and/or leachate. Another way is by eating fish, chickens, & other wildlife that have themselves been contaminated. The toxic metals & compounds are also transferred from contaminated chickens to the eggs that they lay, & then of course into people once the eggs have been consumed. Once present in our bodies the dioxins cannot be removed. Like mercury poisoning, the levels can only rise. This however only applies if you are a man. Women are able to reduce their dioxin levels by having a baby. The baby receives dioxin from its mother through the umbilical cord & the transfer process increases the concentration of the dioxin. This has extreme health consequences for the baby.

6/ Incinerators produce ash & slag which is the residual material left at the end of the incineration process. The ash & filters become hazardous waste themselves, and have to go into special secure landfill so as to not come into contact with animals & humans, or to leach out into the environment. However the toxic elements can still leech out into nearby land, contaminating it and any nearby water source. The waste-to-energy industry promotes itself by saying that incinerators eliminate waste going into landfill, and as a result stop gases like methane being released into the atmosphere. They are not forthcoming about the incinerator's production of toxic ash that requires it to be disposed of in landfill put aside specifically for hazardous waste. Nor do they inform the public that energy production by an incinerator is dirtier than coal or gas, producing more CO<sub>2</sub>, carbon monoxide, dioxin, mercury, and sulphur dioxides. (Source: <http://www.energyjustice.net/incineration/worsethancoal>)

7/ Because WTE incinerators have been found to be unsafe the Australian Capital Territory banned them, (Source: ACT Waste-to-Energy Policy 2020-25, ACT Government) and the New South Wales Government banned them in the Sydney basin (source: NSW Government Energy from Waste Infrastructure Plan 2021). Why is it okay for some communities to live in an environment free of incineration produced pollutants but others have to carry this burden? Young children need clean water and uncontaminated food to be able to grow into healthy adults capable of reaching their full potential. If this WTE incinerator is allowed to go ahead we are effectively saying that the lives of the people living and working in this community don't matter.

In summary incinerators must be banned in all communities because nobody deserves to have their health destroyed no matter where they live. Incinerators operating in rural and semi-rural areas can still directly impact all of our lives. Wind carries pollution very long distances so communities far from the incinerator could still be breathing the pollution into their bodies and drinking it when it enters the water supply. Any food sources grown or raised near this incinerator will be contaminated, and in turn when we consume them they will contaminate us. Incinerators are dangerous to the environment, and to animal and human health. Please say no to this proposed incinerator because they aren't safe for anyone, and ultimately everyone will be impacted.