

Hi everyone, and thank you for the opportunity to speak.

some of this information is taken from

Literature review on hazard identification relating to fire safety in commercial plastic recycling facilities – Devine, C. et.al. 2023

<https://doi.org/10.1177/0734904123119989>

ONE OF THE BIGGEST CONCERNS FOR THIS FACILITY IS WHEN A FIRE IT WILL BE A HUGE ENVIRONMENTAL DISASTER IMPACTING OUR HEALTH FOR GENERATIONS.

Plastic recycling facilities are **GENERALLY zoned Heavy Industrial E5** due to high level of Environmental disasters and fires and **THEREFORE** require a large buffer zone between other industries and residential areas.

OF GREAT CONCERN IS THE FACT WE DON'T HAVE THE RESOURCES IN THE SHIRE TO FIGHT THIS SPECIFIC TYPE OF FIRE IN A TIMELY MANNER WITH MOSS VALE FIRE STATION BEING AN UNMANNED, VOLUNTEER ONLY STATION. IN THE WHOLE SHIRE WE ONLY HAVE 4 TRUCKS AND 1 HAZMAT, WITH OTHER HAZMAT VEHICLES OVER 45 MINUTES AWAY.

WE JUST DON'T HAVE THE RESOURCES.

The most commonly recycled plastics are PET and high density polyethylene (HDPE) as these types of thermoplastics are ideal for recycling as they **ARE EASILY** softened, melted, reshaped, and hardened by cooling, **HOWEVER THEY NEED EXTREMELY HIGH TEMPERATURES TO MELT - HENCE HIGH INCIDENCE OF FIRES IN PLASTIC RECYCLING FACILITIES WHICH FIREFIGHTERS STATE ARE EXTREMELY HARD TO EXTINGUISH BECAUSE OF THE HIGH HEAT RELEASE RATE.**

Fire Hazard 2. Bulk storage of plastic bales have a **high heat release rate and release noxious fumes.**

Plasrefine documents STATE a sprinkler system will be installed in Building 1, but it is a ceiling system. and states A SPRINKLER SYSTEM IS not mandatory for building 2 AS IT IS DESIGNATED FOR REPROCESSING.

both buildings SHOULD HAVE an in rack sprinkler system. **These systems ARE a network of pipes used in taller storage buildings with high hazard commodities. They continuously monitor for smoke and release water to targeted areas for a quick response.**

The problem with only a ceiling sprinkler system, is that burning or smouldering plastic at the top of a stack may then harden as the water cools it down, forming a plastic shield, making water penetration to lower levels impossible.

Another source of fires is Combustible dust cloud formation is a by product of the shredding process combined with heat friction from shredding machines CAN ALSO CAUSE FIRES.

The document states that Building 2 will not contain combustible waste, however, it will contain combustible materials and will be using high temperatures for moulding and extrusion of pellets into end products. The heating temperature for PET and high density polyethylene is between 340 and 440 degrees C. with potential to cause NEARBY materials to ignite. This building also needs fire and smoke detection and an in rack sprinkler system.

The fire load density of a plastic recycling facility is around 10 times that of a plastic **manufacturing facility**.

Additionally, while we are having a parliamentary enquiry into the levels of PFAS in our drinking water in NSW is this the right time to approve this facility in the Sydney Water Catchment area.

The United Nations state in 2022 ^{fundamental} "It is a human right to a clean healthy sustainable environment" ^{& must be protected}. The NSW State Government needs to recognise these rights. They are already legislated in the ACT. ^{making the way forward for other states.}

NOT THE RIGHT SITE

FROM REPORT OCTOBER 2024 DEPARTMENT PLANNING HOUSING & INFRASTRUCTURE

Page 15. 2.7 Fire Management

51. Fire management infrastructure would include emergency fire tanks (up to 1,200 kL storage volume), internal and external hydrants, fire hose reel system, a hydrant and sprinkler booster assembly, a pumping station and a firewater containment system. Plastic stockpiles would comply with the requirements of NSW Fire Safety Guidelines Fire Safety in Waste Facilities, meaning each stockpile would be separated by a concrete wall that extends one metre beyond the stockpile. Site perimeter access for fire appliances would be provided.

52. Building 1, which would contain combustible waste material, would include an automatic fire sprinkler system, fire detection and alarm system, automatic smoke exhaust system and a building occupant warning system.

53. Building 2, would not contain combustible waste. However, under the Building Code of Australia (BCA), it is likely that sprinklers would be required as it would be considered a 'large isolated building'. This will be confirmed during detailed design.

BELOW - THESE REQUIRE HEAT AND THE PRODUCTS ARE COMBUSTIBLE

PAGE 14. 2.5.2 Building 2 44. Building 2 would house reprocessing of plastic flakes, pellets or powders produced in Building 1 into more advanced products, such as PET sheets, wood/plastic composites or furniture. Recovered plastic flakes and pellets would be melted and extruded or injected into moulds, as required. Building 2 would also include storage areas for finished products as well as flakes and pellets to be used if the storage areas in Building 1 are full.