

Infrastructure Requirements Table	
Infrastructure	Requirements (Design and Construction)
Waste Acceptance Area: Weighbridge	<ol style="list-style-type: none"> 1. Weighbridge capable of measuring the weight of all incoming trucks to determine the amount of waste being processed by the plant; 2. Radiation detection equipment to determine the presence of radioactive material.
Waste Receiving Area: Tipping Hall	<ol style="list-style-type: none"> 3. Rapid opening and closing roller doors and louvres; 4. Air-curtain above roller entry and exit doors that prevent the exit of air from the Tipping Hall whenever doors are open; 5. Concrete flooring within the Tipping Hall to ensure that no waste or wastewater will be discharged to the environment from these areas; and 6. CCTV monitoring to identify and facilitate removal of large objects which are unsuitable for incineration.
Waste Receiving Area: Waste Bunker	<ol style="list-style-type: none"> 7. The waste bunker to be equipped with automatic doors, designed to ensure the bunker remains sealed while no waste is being deposited; 8. Mixing cranes to mix the waste to ensure a suitably homogenous feedstock for incineration to meet all emission limits; 9. Air extraction system from the secondary air fan to each incinerator, located above the waste bunker to ensure negative pressure within the waste bunker; and 10. Concrete flooring within the Waste Bunker to ensure that no waste or wastewater will be discharged to the environment from these areas.
Waste incineration	<ol style="list-style-type: none"> 11. Two combustion lines, each containing a furnace using Keppel Seghers moving grate combustion technology, designed to move the incoming waste forward, while sequentially mixing and aerating the waste on the grate; 12. Startup burners, capable of firing as auxiliary burners to maintain incineration temperature in the incineration chamber such that minimum burning temperatures (850°C) and residence times (2 seconds) are maintained at all times during operation; 13. Temperature sensors to be installed which are capable of the representative measurement across the entire incineration chamber and waste gases produced therein; 14. Oxygen sensors to be installed which facilitate the measurement of combustion efficiency; and 15. Urea injection system capable of minimizing NOx emissions to below 400mg/ms.
Automated Combustion Control System (ACCS)	<ol style="list-style-type: none"> 16. Automated monitoring and control system capable of controlling the feed to the grate, combustion air flows and other ACCS parameters in order to control the grate-boiler combustion, minimise excess combustion air and minimise NOx formation.
Boiler Economiser	<ol style="list-style-type: none"> 17. Boiler Economiser capable of reducing flue gas temperature to below 200°C.
Air Pollution Control System	<ol style="list-style-type: none"> 18. Capable of cooling flue gas rapidly to between 135 and 160°C; 19. Lime Injection System capable of injecting lime or sodium bicarbonate into the flue gas stream and reducing; 20. Activated Carbon Injection System capable of injecting activated carbon into the flue gas and reducing; 21. Bag filter
CEMS	<ol style="list-style-type: none"> 22. CEMS
Stack and associated ducting / Emission discharge points	<ol style="list-style-type: none"> 23. Multi-Flue stack of minimum stack height of 87.5m above ground level; and 24. Sampling ports for emissions monitoring that are compliant with AS4323.1
Solid Residues Storage Area	<ol style="list-style-type: none"> 25. Concrete flooring within the Bottom Ash Bunker to ensure that no waste or wastewater will be discharged to the environment; 26. Concrete flooring within the Metal Recovery Area to ensure that no waste or wastewater will be discharged to the environment; and 27. Enclosed conveyors to transport fly ash, and air pollution control residues.



