

PROCESS MAP



ADMINISTRATIVE CONTROLS

- STEP 1** **CUSTOMER ENQUIRY**
Customer (delivery) enquiry processed by administration
- STEP 2** **TRANSPORT VEHICLE ARRIVAL**
Receipt of transport documentation, driver induction, vehicle weighed
- STEP 3a** **VEHICLE UNLOADING, SKIP BIN TRUCK**
Vehicle proceeds to laydown yard, skip transferred to TCC facility truck, process merges with 3b
- STEP 3b** **VEHICLE UNLOADING, SEMI-TRAILER / HOOK BIN**
Entry to unload/storage area via airlock, directed to stock bay, unloads, exit via wheel wash & airlock, weighed, vehicle departs site

WASTE PROCESSING

- STEP 4** **STOCK BAY MANAGEMENT & CONVEYOR SYSTEM**
Water fogging to suppress dust, overhead crane moves ACM to conveyor system, conveyed to shredding system
- STEP 5** **PRIMARY & SECONDARY SHREDDERS**
Conveyor system moves ACM into shredding areas (slow-speed, rip-shear). Shredders reduce waste to uniform size to ensure consistency into rotary hearth
- STEP 6** **PLASTIC TO FUEL STORAGE & DELIVERY SYSTEM**
7% plastic waste to ACM is sufficient to provide 100% energy requirements. Plastic waste is granulated by plastic shredder
- STEP 7** **FEED HOPPER**
Feed hopper receives prepared ACM & granulated plastic waste
- STEP 8** **FLUX STORAGE & DELIVERY SYSTEM**
Includes borax storage container, mix tank, insulated delivery tank. Fluxing solution introduced to ACM at feed hopper exit
- STEP 9** **ROTARY HEARTH FURNACE**
Heats waste to approx. 1230°C over 20 mins to ensure 100% asbestos destruction
- STEP 10** **HEARTH DISCHARGE SYSTEM & END PRODUCT STORAGE AREA**
Furnace output = non-hazardous inert aggregate. Waste mass reduction = 33%; & volume reduction = 73%. Two x storage bins for removal offsite

POLLUTION ABATEMENT

- STEP 11** **SECONDARY COMBUSTION CHAMBER & COOLING (QUENCH) TOWER**
Exposes off-gas to oxidising conditions, off-gas is then cooled, assures destruction of organic compounds
- STEP 12** **VENTURI, PACKED-BED SCRUBBERS & DESALINATION SYSTEM**
Venturi constricts off-gas flow, introduction of sodium hydroxide neutralises off-gas, any sodium chloride produced is processed via desal system
- STEP 13** **DEMISTER & REHEATER**
Demister removes droplets of water produced by packed-bed scrubbers, reheater prevents condensation
- STEP 14** **OFF-GAS FILTRATION - BAG HOUSE, INDUCED DRAFT FAN & STACK**
Baghouse removes small particulates, ID fan draws air through pollution abatement system, clean off-gas (steam) dispersed to atmosphere via stack