



1 SILOS

Silos contain Portland cement or Flyash and can hold up to 100 metric tone. Cement and flyash is delivered to site by tanker and pneumatically fed from tanker to silo. Silos are fitted with baghouse filtration which filters the air as it is displaced within the silo. Pulse jet baghouses which are predominantly used are self-cleansing and compliant with Auckland Council Technical Publication 152. In addition silos are fitted with audible and visual alarms to alert the tanker driver when capacity is being reached.

2 TRUCK

All Firth trucks are fitted with mobile spill kits and drivers follow a detailed spill response plan should an incident occur. Trucks are also fitted with status automators which measure truck idling, speed and harsh braking.

3 DUST EXTRACTOR

Dust extractors are fitted to the loading chute from the plant. As the dry material is loaded into the back of the truck dust is drawn back into the extractor. Plants that do not have extraction at the batching point may have other forms of dust suppression such as wind curtains or spray bars.

4 WASTE WATER AREA

Concrete plants are defined by two areas, the process area where cement and additives are used and clean areas where inert materials such as aggregates are stored. Within the process area all surface water will flow to the lowest point which is the beginning of the waste water system. Trucks wash out into the first pond in the sequence; the ponds are connected by weirs which allow for the solids to settle out. The clean but alkaline water is pumped into storage, either tanks or open reservoirs. Plants can use 100% recycled water from the treatment system for batching concrete.

Some plants have wastewater discharge consents and are able to discharge excess water when necessary.

5 SLUDGE BINS

Settled solids of cement, sand and aggregates are transferred from the pond system into sludge drying bays. When the sludge is adequately dried it is removed from site and sent to a cleanfill. In some regions it is used as a base course for roading or for farm races.

6 WASTE MOULDS

Concrete interlock moulds are available at most plants. In the event that a customer has over-ordered and a truck returns with a measure of concrete it can be discharged into the mould. The resulting interlock blocs are then sold to customers or used onsite to construct temporary aggregate bins.

7 AGGREGATE BINS

To prevent nuisance dust from aggregate storage areas sites will often use freshwater irrigation to keep stock piles damp, wind netting may be also be used above bins and bin levels managed to prevent windblown dust beyond the boundary.

8 STORMWATER

Stormwater outside of process areas is generally treated by way of sediment and oil removal. Stormwater passes through cesspits or through oil and grit interceptors before being discharged into the council reticulation. Spill kits and spill response plans are developed for each site.

9 LANDFILL

Landfill which cannot be recycled is collected in lidded bins to prevent the ingress of rainwater. Items such as metal, hard plastics, pallets and card are recycled where possible.

10 ADMIXTURES

Admixtures which are added to concrete mixes are stored in a sealed concrete bund.

11 PLANT

Energy efficiency of plant and machinery is a critical part of our business. Electricity and gas are measured from each plant on a monthly basis. Key performance indicators are set for each plant and these help to drive us towards set reduction in CO2 emissions.

12 OFFICE

Each site operates according to an Environmental Management Plan (EMP). The EMP is our guiding document for how we interact with the environment and ensure that our effect is no more than minor. Sites report monthly on compliance and record all environmental actions in site environmental diaries.