



DUBAI AVIATION CITY CORPORATION OHSE CODE OF PRACTICES



DATE: 28.10.2019

DACC CODE OF PRACTICE - OHSE REQUIREMENTS FOR TEMPORARY AND
PERMANENT CONCRETE BATCHING PLANTS



OHSE REQUIREMENTS FOR TEMPORARY AND PERMANENT CONCRETE BATCHING PLANTS
DACC (DUBAI SOUTH) Code of Practice
Document Reference No.: DACC.DS.OPS.OHSE.OPS.14.CB

1.0	INTRODUCTION	3
2.0	TRAINING AND AWARENESS	3
3.0	REQUIREMENTS	3
4.0	RECORD KEEPING	6
5.0	REFERENCES	6



OHSE REQUIREMENTS FOR TEMPORARY AND PERMANENT CONCRETE BATCHING PLANTS

DACC (DUBAI SOUTH) Code of Practice

Document Reference No.: DACC.DS.OPS.OHSE.OPS.14.CB

1.0 INTRODUCTION

- (i) This Code of Practice (CoP) is mandatory to all Temporary and Permanent Concrete Batching Plants within the Dubai South jurisdiction. This CoP is designed to incorporate requirements set by UAE and other relevant Regulatory authorities. If requirements of this document conflict with requirements set by another regulatory authority, operational facilities are required to follow the more stringent requirement.
- (ii) This Code of Practice (CoP) sets out requirements of concrete batching plants as described in The local order 61/1991 with regard to Environment Protection Regulations in the Emirate of Dubai requires all involved parties in industrial activity to comply with Environmental Protection & Safety regulations, prevent pollution of environmental aspect such as soil, water, air as well as noise pollution.
- (iii) This Code of Practice (CoP) is for environment compliance required to be complied by the concrete batching plant companies in effort to conserve the environment.
- (iv) Concrete batching plants are common in Dubai. The improper design, operation and poor equipment maintenance of such plants result significant dust emissions causing nuisance or pollution in any nearby establishments and public areas. Wastewater generated by these plants can also cause problems for disposal facilities.
- (v) Operational facilities means the business units such as Factories, Logistics and Warehouse Facilities, Recreational Facilities, Multi Store Apartments, Retail Facilities, Offices, Educational Institutions, Medical Facilities, etc. and all other facilities which are registered under **Dubai Aviation City Corporation (DACC)** Licensing and Registration Department and operating in Dubai South Jurisdiction.
- (vi) A duty Holder is defined as;
 - a) the person(s) who owns or is in control, through contact or tenancy, of non-domestic premises;
 - b) With regard to multiple tenanted premises, the duty holder shall be the person who owns or is in control of the building, including access and egress
 - c) All other persons shall cooperate with the with the duty holder to allow them to comply with their duties requirements under this CoP.

2.0 TRAINING AND AWARENESS

- (i) Duty Holder shall ensure that OHSSE training complies with the requirements of **Dubai Aviation City Corporation (DACC)** OHSSERF - Regulations 6 – Competence Management, Training and Awareness;
- (ii) Awareness shall be provided to all transit mixers driver in concrete spillage control/prevention on roads while transporting concrete mix.

3.0 REQUIREMENTS

- (i) **Dust Emissions from Silos, Weigh Hoppers, Mixers:**
 - a) There should be no visible dusts emission from vents of silos, weigh hoppers or mixer during filling or refilling operation.



OHSE REQUIREMENTS FOR TEMPORARY AND PERMANENT CONCRETE BATCHING PLANTS

DACC (DUBAI SOUTH) Code of Practice

Document Reference No.: DACC.DS.OPS.OHSE.OPS.14.CB

- b) The vent must be provided with filter bags such as Cotton, Sateen or Dacron fabrics of adequate size sufficient to allow filtering velocity based upon the volumetric filling rate.
- c) The required cloth area and number of filters may be determined based on the following formula or any equivalent determination: $Af = \frac{Q}{P \times V}$ Where;

- Af = Filter cloth area, square meter
- Q = Filling rate, kgs/min
- P = Density of cement, kgs/m³
- V = Filtering velocity, m/min (0.90 to 1.80).

- d) For more than one filter bag, the number can be determined by the following formula

$$Nc = \frac{Af}{3.14 DL} \text{ Where;}$$

- Nc = Number of bags
 - Af = Total Filter cloth area, square meter
 - D = Diameter of filter cloth; meter
 - L = Length of filter cloth; meter
- e) As the filling operation goes on, dust layer accumulates on the cloth surface, which becomes blinded, and there is danger in rupturing the bags or silo. Therefore, proper maintenance and regular inspection of the filters are necessary.
- f) The filter design must include a dust removal device to prevent blinding of the filter cloth. It can be either manual or automatic shaking mechanism or air jet.
- g) In case of a single filter on top of the silo, the pulley arrangements in **Figure 1** allows it to be shaken from the ground so that the accumulated layer of dust on the inside of the cloth tube can be removed after the filling operations.
- h) In case of multiple bag filters, semi-automatic or automatic cleaning device are fitted. Pressure indicator shall be fixed and preset at cleaning cycles.
- i) The filters must be protected against weather conditions. It shall be enclosed with metal sheets. The space between the filter cloth and metal sheets must be sufficient to allow clean air discharges.
- j) If visible dust is observed, the filter cloth has leak on fittings or it is already ruptured. Inspection should be made, ensure tightness of fittings or change ruptured bags. Always maintain spare filter cloth on the site.

(ii) Conveyors, Discharge Hoppers:

- a) All conveyors and discharge ends must be provided with dust-tight covers. The covers can be retracted for maintenance.
- b) The discharge hopper shall be provided with canvas shroud of good fit with the transit-mix truck-receiving hopper. It can be lowered until it rests on the top of the truck-receiving hopper.

(iii) Aggregates Storage:

- a) The aggregates storage should be provided with netted tarpaulin enclosure or constantly watered to keep it damp.
- b) It is preferable to use and store washed aggregates.



OHSE REQUIREMENTS FOR TEMPORARY AND PERMANENT CONCRETE BATCHING PLANTS

DACC (DUBAI SOUTH) Code of Practice

Document Reference No.: DACC.DS.OPS.OHSE.OPS.14.CB

(iv) **Vehicle Movement:** The movement of vehicles on unpaved and dusty ground causes emissions. As much as possible, the ground should be paved and dust free. For unpaved ground and access roads it should be watered frequently enough to suppress the dusts.

(v) **Wastewater Reuse:**

- Generally, wastewater is generated from washings of transit-truck mixers or equipment after the batch process. A pond of sufficient size shall be constructed to accommodate wastewater based on the rate of usage.
- The pond shall be properly baffled or partitioned (e.g. minimum of 3 partition) to allow enough time for the solids to settle.
- The sedimentation pond shall have at least one spare partition. This is useful if the first partition is already full of solids, wastewater can be diverted to the spare partition while the filled pond is under excavation.
- Excavated solids shall be disposed only to sites approved by the Dubai Municipality. The solids shall contain no more than 20% water before disposal.
- The solid-free water from the last pond shall be reused in washing transit-mix trucks, in concrete mix preparation or dust suppression on roads. As much as possible, attain zero

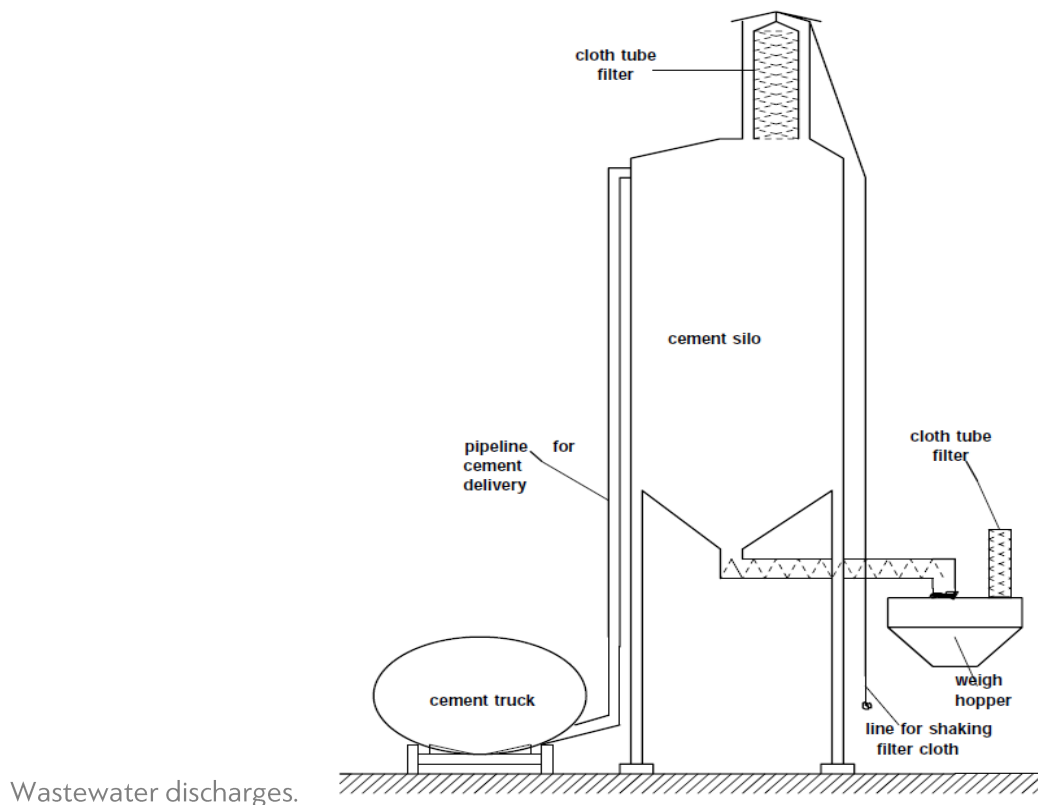


Figure 1



OHSE REQUIREMENTS FOR TEMPORARY AND PERMANENT CONCRETE BATCHING PLANTS

DACC (DUBAI SOUTH) Code of Practice

Document Reference No.: DACC.DS.OPS.OHSE.OPS.14.CB

4.0 RECORD KEEPING

- (i) The Duty Holder shall document the Audits as per the requirements of: **Dubai Aviation City Corporation (DACC)** OHSSERF - Regulations 8 Document Control and Record Management
- (ii) The Duty Holder shall maintain Documentation /logbook for:
 - a) Disposal records of trade wastewater
 - b) Disposal records of solid
 - c) wastes/waste concrete
 - d) Disposal records of used oil

5.0 REFERENCES

NO.	DOCUMENT NAME	DOCUMENT NO.
1	Risk Management	DACC.DS.OHSE.RF – Regulation 2
2	Leadership, Roles, Responsibility and Self-Regulation	DACC.DS.OHSE.RF – Regulation 5
3	Competence Management, Training and Awareness	DACC.DS.OHSE.RF – Regulation 6
4	Environmental Management	DACC.DS.OHSE.RF – Regulation 10
5	Federal Environmental Law No. 24 of 1999	No. 24 of 1999
6	Dubai Local Order No. 61/1991	No. 61/1991
7	List of permitted waste management companies in the emirate of Dubai Issued: 21-May-2017	Information Bulletin (WMD-IB-01/2017)
8	Waste management related activities in emirate of Dubai	Circular No (5/2015)
9	Update on the Status of Hazardous Waste Disposal Service system	Circular No. (1) of 2018
10	Hazardous Waste Disposal;	Dubai Municipality Technical Guideline No. (8)
11	Waste Classification 2015 by the Environmental Department of Dubai Municipality.	Dubai Municipality Technical guidelines No.5