

APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(1) in Section One - Administration for detailed applicability levels.

IMPLEMENTATION

This regulation applies to building-specific greywater systems. Greywater must be treated locally before reuse within the building or at the building site. Project team should calculate the expected quantity of greywater generation and design the collection tank and greywater treatment system, accordingly.

For projects targeting Golden and Platinum Sa'fa, greywater treatment system must be provided as per regulation requirements (15% for Golden, 30% for Platinum) and must be reused on-site. The system should treat the greywater to the quality level for its intended end use as per the Local Order No. 61 of 1991 on the Environment Protection Regulations in the Emirate of Dubai.

The piping collection system for greywater can be connected to shower drains, bathtub drains, bathroom wash basin drains and laundry water drains. It must not be connected to toilets, kitchen sinks or dishwashing machines. A collection tank for greywater must be provided in each building and the greywater must be filtered before entering the collection tank.

The following guidelines (for all Sa'fa levels) must be complied for projects using on-site greywater treatment system or using TSE water from external sources:

- Buildings must have dual plumbing system, one for potable water and one for recycled greywater. All distribution pipes for recycled greywater must be differently colour-coded from the distribution pipes of potable water and should be clearly and permanently labelled as "Not Suitable for Drinking".
- There must be a minimum air break of 25 mm between any potable water sources and greywater collection and distribution system, to avoid any contamination to potable water.
- Greywater must not be used for purposes wherein it will come into contact with the human body and must be treated to the standard set forth by Dubai Municipality before reusing.
- Greywater should not be stored longer than 48 hours in order to prevent build-up of contaminants. Hence, the collection tank should be sized accordingly to limit the retention time of greywater to a maximum of 48 hours.
- When unused greywater is drained into sewage system, it is important that it is discharged through a connecting valve with a backflow preventer. Sewage water entering greywater system can be stopped with backflow preventer. Any overflow from the storage tank must be connected with sewage system.

Commercial car washing facilities must recover and reuse a minimum of 50% of their wastewater. Treated recycled water can be used to wash cars. A typical schematic of car wash water reclamation system is shown in fig. 603.01(1), wherein water used for car washing is recovered, treated and reused.