

## **General Requirements for Temporary Sanitary Facilities for Trade Fairs**

1. All used water discharged from the Trade Fair operation must be collected and disposed of via the temporary sanitary facilities to an approved sewerage system. No used water shall be discharged into drains, soil and surrounding environment.
2. Approval from PUB(WRN) on the design of the temporary sanitary facilities/holding tank must be obtained prior to commencement of Trade Fair Operation. The design shall be in accordance with the below **General Requirements for temporary sanitary facilities for Trade Fairs**. The design submission to PUB(WRN) shall include the detailed design and layout plan of the temporary sanitary facilities and NEA's Trade Fair license permit.
3. The used water from the Trade Fair operations shall be either collected in holding tank(s) and be disposed of by tankering by a NEA's Licensed Waste Collector (LWC) or be discharged into the existing public sewers if available via a pumped system or other means subject to the site condition and approval of WRN(PUB).
4. Where public sewer is available at or near the trade fair site, the temporary sanitary facilities shall be connected to the public sewer. The sewer connection works shall be carried out in compliance with the detailed plans/drawings approved by PUB, the Code of Practice on Sewerage and Sanitary Works, Sewerage and Drainage Act and the Sewerage and Drainage (Sanitary Works) Regulations.
5. All used water discharge points at the inspection chambers or manholes shall be properly protected and adequately covered up to ensure that safety is not compromised. Where connections are made into inspection chambers/manholes, metal cover plates of sufficient strength to withstand human weight and equipped with holes for used water discharge pipe entry shall be provided to temporarily replace the existing inspection chamber / manhole cover. In addition connections into the inspection chambers/manholes should be adequately barricaded. To address foul smell concerns, additional measures must be taken to seal up all gaps at the inspection chamber / manhole to ensure that no foul smell leaks out from the sewerage system.
6. If holding tank is proposed for collection and disposal of used water, the holding tank shall be designed and constructed in accordance with the below general requirements for holding tank
  - (a) The holding tank shall be made of reinforced concrete (RC), steel or GRP and provided either under or above ground.
  - (b) The design calculation on the capacity of all holding tank(s) shall be based on the parameters given in the Code of Practice on Sewerage and Sanitary Works and the flow rates of the water fittings given in the Code of Practice for Water Services. In addition, if disposal of used water is by tankering by LWC, the total capacity of holding tank(s) incorporated in the design shall be at least **10m<sup>3</sup>**.  
[For information, above ground portable holding tanks of various capacities can be rented from contractors or some LWCs]
  - (c) For any pumped system installed, the pumping mechanism shall be automated to start up the pump based on a preset water level in the holding tank(s) to ensure there is no used water overflow. The pumped system shall consist of at least two pumps – one duty pump and one standby pump. Each of the duty and standby pumps shall be sized to handle the full capacity discharge from the holding tank. The standby pump shall be configured to start automatically in the event of the failure of the duty pump. The pump should be housed in a pump sump of 2 ft x 2.5 ft x 3 ft deep as a guide or sufficient to house both the duty and standby pumps.
  - (d) All holding tank(s) installed including pump sumps should be equipped with SMS alarm based level sensor system having both a high level and overflow level alarms. The pump sumps shall also be considered as holding tanks.

i) High level alarm. Used water in the holding tank(s) shall be removed by a LWC or discharged into/leading into the public sewerage system prior to level reaching high level alarm set-point. When, “High level” is reached, the alarm system shall send a “High level” alarm via SMS to alert at least 2 **senior management** staff, appointed by the owner/operator, who must take immediate actions that are necessary to prevent used water from overflowing. The high level set-point shall be set at a level that allows sufficient response time for owner/operator to take remedial actions to prevent used water overflow. The format of the SMS shall indicate the following :-

# Operator’s name and contact No:- .....  
# Location of Trade Fair :- .....  
# Holding tank capacity :- .....  
# Type of alarm :- ...High level / Overflow .....  
# Date of activation :- .....  
#Time of activation :- .....

ii) Overflow alarm. “Overflow level” is a level at which overflow is most likely to occur/have occurred. This float switch shall be located above the “High level” float switch and slightly below the overflow level of the holding tank. When activated, the alarm system shall send “Overflow level” alarms via SMS to alert at least 2 **senior management** staff of the owner/operator and also to **PUB (Tel: 96663700)** . The format of the SMS shall be the same as that for the “High level” as mentioned above.

iii) As part of the submission for PUB(WRN) approval, the names and mobile phone numbers of the two **senior management** staff responsible for receiving the alarm SMS shall be provided.

iv) A signboard, indicating the contact numbers of the two **senior management** staff, shall be prominently displayed to inform members of the public should any abnormalities such as used water overflow so that remedial action could be taken promptly.

7 A dedicated and competent contractor shall be engaged to carry out regular preventive and breakdown maintenance of all parts of the temporary sanitary facilities designed for Trade Fairs such as used water pipes, fittings, supports, tanks, pumps, level sensor system M&E equipment etc to ensure proper functionality to prevent used water overflow.

8 All parts of the temporary sanitary facilities design for Trade Fairs such as used water pipes, fittings, supports, tanks, pumps, level sensor system M&E equipment shall not be installed inside the drains.

9 PUB regularly carries out audit checks on temporary sanitary facilities at Trade Fairs. Owners/operators are required to produce at the site immediately on demand the following documents during audits:-

- Preventive and Breakdown maintenance records of all M&E equipment.
- Licensed Waste Collector disposal receipts (where applicable)
- PUB(WRN) approval letter for temporary sanitary facilities.

10 Following PUB(WRN)’s approval, if there would be any proposed change in the site condition / access to the holding tank, types of activities or increase in the number of users which may result in an increase of the used water discharging to the temporary sanitary facilities, the owner/operator shall consult PUB(WRN) for approval before making such changes. In a such case, the owner/operator shall review and upgrade/amend the temporary sanitary facilities including the holding tank to ensure the pipe size and holding capacity are adequate to meet the used water discharge volume/flow rate and incorporate any additional requirements as imposed by PUB(WRN). Amended design for the temporary sanitary facilities shall be resubmitted to PUB( WRN) for approval. Approval from PUB(WRN) on the design of the temporary sanitary facilities must be obtained prior to commencement of Trade Fair Operation.

11 The Trade Fair operator/organizer/applicant shall take note that failure to obtain an approval from PUB (WRN) on the design of the temporary sanitary facilities prior to commencement of the Trade Fair operations or the construction/installation of temporary sanitary facilities not in accordance with the approved design at the trade fair site is a violation of Section 11 of the Sewerage and Drainage Act (SDA). In addition, failure to comply with any condition stated in PUB(WRN)'s approval letter is also an offence under Section 63(b) of the SDA. Offenders are liable for enforcement actions.

12 For any queries on submission and requirements of temporary sanitary facilities/holding tank for trade fair, please contact Ms Mary Yan at Tel: 6731 3306 (email: mary\_yan@pub.gov.sg) or Mrs Lau-Lim Siew Kee at Tel: 67313254 (email: lim\_siew\_kee@pub.gov.sg).

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