

## **Guidelines Regarding Cleaning, Repairs And Maintenance Of Sewerage Facilities, Sewerage Treatment Plant (STP), Effluent Treatment Plant (ETP).**

### **A. Precautions before commencing the operation:-**

1. As far as possible mechanized cleaning should be undertaken at the workplace. In case it is not feasible to do so, no single person should be allowed to undertake the work of cleaning/maintenance.
2. Minimum of two persons should be present all the time and one of them shall be trained and experienced. The supervisor shall remain present at all times.
3. It is recommended that in the peak summer season, entry of the person into the sewerage/ETP/STP should not be allowed between 11 AM to 4 PM when concentration of gases is expected to be high.
4. First aid box to meet the emergency should be available at the work place before commencing the work. Keep the emergency contact numbers of ambulance police, Fire Brigade ready for use to provide immediate relief in case of any accident.
5. It is the responsibility of the person who has engaged the labour to cleaning of the Sewerage/ETP/STP that to apprise them about the "Do's & Don'ts" in advance to ensure safety.
6. Before undertaking the work, the manholes of the chamber/septic tank/sewers should be kept open for minimum 4 hr. duration to ensure sufficient cross ventilation. If necessary, use forced ventilation such as ducting, exhaust fan etc.
7. Before under taking the work it will be the duty of the employer to note down name of the person, his address, family whereabouts and emergency contact numbers of his near dear ones so that they can be contacted in case of emergency.

### **B. Precautions during operations:**

1. The person engaged for cleaning the Sewerage/ETP/STP should not be allowed to consume alcohol or take any drugs. Also the persons, who are not physically fit should not be allowed to undertake the work.
2. The persons engaged for the job will be essentially required to wear the protective gear as per requirement of the work place.
3. The protective gear and safety equipment shall comprise of the equipment's
  - (i) Safety body harness/safety belt
  - (ii) face mask
  - (iii) Safety torch
  - (iv) Hand gloves
  - (v) Safety goggles
  - (vi) Safety Helmet
  - (vii) Emergency medical oxygen resuscitator Kit
  - (viii) Gas Monitor
  - (ix) Head Lamp
  - (x) Reflecting Jacket
  - (xi) Guide Pipe set
  - (xii) Safety Tripod set
  - (xiii) Full body Wader suit
  - (xiv) Chlorine Mask
  - (ix) Air compressor for blower
  - (xvii) Modular Airlines Supply Trolley System
  - (xviii) Full face mask
  - (xix) Safety Gumboots
  - (xx) Raincoat.
4. If there is appearance of white foam and no live cockroach then there is strong possibility of presence of poisonous gases in that chamber. Use litmus paper/gas detector to confirm the

same. Give sufficient time by opening the chamber to open sky and if possible use air blowers to allow the gases to escape before taking up the work.

5. Do not depend on the presence of the foot rests fixed in the chamber wall since there is a possibility that with passages of time grip/ hold of the footrest has given way and it may not be strong enough to take the load. Always use rope ladder after testing its carrying strength.
6. No person should be allowed to continue to work or stay in the chamber for more than 15 minutes at a stretch. The persons outside the chamber should remain in conversation with the person/ persons inside the chamber to ensure their well-being. In case of uneasiness to the person working inside the chamber, a signal shall be given by shaking the rope attached to his safety harness so that he can be pulled out of the chamber.
7. Smoking or carrying open fire flame in the near vicinity of the work place should not be allowed. Any electric installation should also be not switched on or switched off near the place of work. If electric wires happen to be nearby, they should be properly insulated.
8. No tools or equipment should be placed near the edge of the manhole to avoid any injury to the worker due to sudden fall of the equipment inside the manhole.

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