DELHI JAL BOARD OFFICE OF THE MEMBER (WS/DR.) VARUNALAYA, PH-II, KAROL BAGH, DELHI-05

No. DJB/Mem.(Dr.)/2010/

30825 Dt.05-04

## CIRCULAR

Instructions have been issued time and again for implementing of safety precautions at the place of work. However, it is observed that importance of implementation of these orders have not been sincerely conveyed to all working levels within the department. This has been a cause of concern for DJB. Important instructions given in NHRC guidelines relating to causes of accidents, precautions to be taken and use of safety equipments have been summed up as under which may be given effect to -

## Accidents in sewer lines:

For cleaning of the sewers, either manually or mechanically, it becomes necessary for the workers to go down in the manhole and sometimes into the body of the sewers. The risks to which the workers are exposed while working in the sewer are as under:-

- Suffocation (Asphyxiation) as a result of oxygen deficiency or poisoning due to gases or vapors.
- b) Physical injury

Infection

2167 d) Drowning

Z/u/lo e) ... Harmful Industrial effluents

f) Others som nents

## Precautions:

- Ventilate the sewer line by opening two or three manholes on both the sides where work is to be carried out.
- Where it is desirable to use the blowers, operate these for atleast 30 minutes before start and during cleaning operations to ventilate the lowest working levels.
- Use safety harness and life line before entering the sewer line.
  Two helpers at the top should be provided for each person.
- Test for hazardous gases before entry of a person into the sewer line and also in between if the operations are for a longer time.
- For extended jobs the gas tests shall be repeated every three minutes while men are in the sewer.
- Presence of H2S can be detected by use of the lead acetate paper available in the market.
- To ensure the presence of minimum required level of Oxygen in the sewer line, a safety lamp is inserted into the manhole.
- If the gas or oxygen deficiency is present and it is not practicable to ventilate adequately before workers enter, a hose mark shall be worn and extreme care shall be taken to avoid all sources of ignition.
- Test manhole runs or steps for structural safety before using.
- Ensure that where portable ladders are used they are properly sealed or fixed.
- Allow no smoking or open flame and guard against sparks.
- Provide helmets to the workers working in the manhole.
- Sewage levels should be checked in the manhole and the same should be not more than 1.5 ft.
- Rise of water level or sudden breeze in the sewer may be taken as warning of possible flooding.

- Safety Equipments Breathing apparatus, air blowers, safety belt, helmets, gloves, litmus paper, first-aid kits, gas detectors, oxygen masks, gum boots, exhaust fan, rope, gas meter etc.
- Sign Board showing men at work, works in progress and warning sign etc. must be provided at the work place.
- The agency will have to provide adequate potable fire extinguishers at the work area and take all adequate precautions against fire hazard.
- The contracting agency will have to provide and maintain sufficient, proper and efficient Life saving and First aid appliances at the works.

(Er. R.K. Garg) Member (WS./DR.)

## DDOs

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