

APPLICATION TO WORK IN PUBLIC SEWERAGE SYSTEM [FORM B/QP]

Date: 21/01/2010

To: Public Utilities Board

Director
Water Reclamation (Network) Department
Public Utilities Board
40, Scotts Road #14-01
Environment Building
Singapore 228231

Instructions

This form is to be digitally signed by QP or Plumber / Contractor responsible for the project(s) with the consent of the competent person.*

Notes: * The competent person is a person who has either successfully completed :

- a) The Confine Space Safety Assessors Course / Manhole Safety Assessor Course conducted by MOM, or
- b) the Sampling and Monitoring of Airborne Contaminants Course conducted jointly by MOM/ENV on or before April 2001.

SAFETY REQUIREMENT FOR MAN WORKING IN SEWERS, PUMPING MAINS, CHAMBERS, SUMPS AND OTHER CONFINED SPACES

All contractors who wish to work in sewers, pumping mains, manholes, chambers, sumps and other confined spaces shall ensure that the following safety procedures are adhered to:-

(I) Risk Management: Risk Assessment

All workplaces need to conduct risk assessment. Employers, self-employed persons and principals (including contractors and sub-contractors) have the responsibility of identifying safety and health hazards at the workplace and taking appropriate actions to eliminate the hazards or reduce the risk associated with the hazards. These requirements are specified in the Workplace Safety and Health (Risk Management) Regulations. The details and Form can be downloaded from MOM website at <http://www.mom.gov.sg> .

(II) Safety And Protective Equipment

The following equipment for the safety and protection of the workmen shall be provided by the contractor. This equipment shall be made available at the worksite before the commencement of any work. The contractor shall ensure that his workmen are familiar with the use of all safety and protective equipment required.

- i) *Safety Apparatus - Multi-gas monitor, lifting harness, torch light, first aid kit, life lines, aluminium ladder, air blower, breathing apparatus, oxygen meter;*
- ii) *Protective Equipment - Safety belt, safety helmet and gloves, knee length rubber boots, overall illuminous vest;*
- iii) *Other Equipment & Tools - Portable air blower, traffic warning lights and signs, barricades, pedestrian warning signs, manhole gratings, non-sparkling tools, flame proof lights;*
- iv) *The Contractor shall ensure that his workmen practice good personal hygiene and take precautions such as wearing facemask,google, glove, rubber boot etc, to avoid contact with wastewater when working in the sewerage system.*

(III) Preparatory Work

1. *The position of the nearest telephone shall be identified so that in the event of an emergency, help can be summoned immediately.*
2. *No smoking or naked light or fire shall be allowed in the vicinity of any manhole or chamber.*
3. *Proper barricades and traffic warning signs shall be placed around the working manhole. For the purpose of ventilation, proper gratings shall be placed over the manholes that are opened.*
4. *Where a sewer is at a downstream of a pumping main discharge chamber, prior clearance with the Pumping Station Unit shall be obtained. During the course of the work in this sewer, close co-ordination must be maintained with the Pumping Station Unit to ensure non-operation of the pumping station.*

Instructions (Continue)

(IV) Before Entering Manholes And Chambers

1. *The cover of the working manholes and those immediately upstream and downstream shall be removed to provide ventilation and to serve as emergency exits. Manhole gratings shall be provided for public safety.*
2. *Air blowers shall be used for ventilation. The blower shall be placed as far as possible from the working manhole and vehicle exhausts and shall be operated for a sufficient time to ensure that all gases are driven out.*
3. *The presence of gases shall be tested by lowering the multi-gas monitor into the manhole. Do not enter the manhole if the multi-gas monitor indicates dangerous conditions. Inspecting team shall carry multi-gas monitor in the sewer.*
4. *Oxygen deficiency shall be tested. (The oxygen level must be maintained above 19% but not exceeding 23%).*
5. *No workmen shall enter the manhole or sewer if they detect smell or feel giddy or suspicious even if safe conditions are indicated in (3) and (4).*
6. *If a manhole is safe to enter, safety belt, helmet and protective footwear shall be worn before entering. No person shall be allowed to enter a manhole or sewer alone. At least two men shall be detailed as top men. The top men shall carry breathing apparatus.*
7. *The supervisor shall keep count of his men before entering the sewer.*
8. *Ladders shall be used for access into or out of any manhole, which exceeds 1m deep. Only one man shall be allowed on a ladder at one time.*
9. *If aluminum alloy ladder is used, the ladder shall be provided with non-slip shoes to prevent slipping. Wooden ladder shall not be used.*

(V) While Men Are In Manhole Or Sewers

1. *No men shall be allowed to work in a sewer alone. Lifelines shall be used when working in sewers.*
2. *The top men shall keep in touch with the men below by calling or signaling at frequent intervals.*
3. *If dangerous conditions are encountered or if danger is suspected, then the men below shall return to the surface immediately through the nearest manhole.*
4. *During the whole of the time that the men are below ground, proper and adequate ventilation shall be maintained.*
5. *No smoking or naked light in manholes or sewers shall be allowed.*
6. *Safety belts and helmets shall be worn at all times while working inside manholes and sewers.*
7. *The air inside a manhole or sewer shall be tested continuously with the use of "personal gas monitor" by those working below. The gas monitor shall be capable of measuring the concentration of Carbon Monoxide, Oxygen, Hydrogen Sulphide and combustible gases.*
8. *Where the sewers are large enough to enter, guard bars or safety chains shall be kept in position across the sewer downstream of the place of work.*

Instructions (Continue)(V) While Men Are In Manhole Or Sewers (Continue)

9. Where natural light is not adequate, only artificial light of the explosive proof type shall be used.

(VI) After Working In Sewers Or Manholes

The supervisory staff in charge shall check carefully that all men have emerged from the sewer or manhole. All manhole or sump covers shall be replaced properly.

(VII) In An Emergency

The contractor shall inform the Water Reclamation (Network) Department immediately with all the details. The Contractor may contact Sewer Maintenance Unit at Telephone No. 62824336 (during office hours) or Central Monitoring Station (Kolam Ayer PS) at telephone No. 62913744, 62913745 or 62914204 (After office hours).

Particulars of Project

Project Reference Number	<input type="text"/>
Project Title	<input type="text"/>
Location Description [Include Lot/Plot, MK/TS, House No, Building Address and Road information]	<input type="text"/>

Particulars of Application

Certificate of Registration of a Factory	
Factory No	<input type="text"/>
Date of Expiry	<input type="text"/>
Dept. File Reference No	<input type="text"/>
Nature/Details of Works	<input type="text"/>
DLP Expiry Date (For DLP Inspection)	<input type="text"/>
Proposed Period of Work (indicate date and time)	From <input type="text"/> <input type="text"/> To <input type="text"/> <input type="text"/>
1st Extension	<input type="text"/> <input type="text"/>
2nd Extension	<input type="text"/> <input type="text"/>

Section I Particulars of Qualified Person

Name	Please Select
Role In Project	
Registration No	
Email Address	

Section II Particulars of Plumber / Contractor

Name	
Designation	
Contact No.	
Email Address	

Confirmation by Applicant

I, the <input style="width: 100px;" type="text" value="Please Select"/> , confirm that the necessary safety equipment will be available and used at the worksite by our staff and workers.	<input type="checkbox"/>
We have read and fully understood the 'SAFETY REQUIREMENT FOR MEN WORKING IN SEWERS, PUMPING MAIN, MANHOLES, CHAMBERS, SUMPS AND OTHER CONFINED SPACES' (Under instructions) and any additional conditions stipulated in the approval and shall ensure that they are complied with.	<input type="checkbox"/>
The Competent Person, as indicated below, will carry out the gas testing/monitoring and safety checks before certifying the sewer manholes are safe for workers entries. The gas monitoring readings will recorded on a daily basis and kept for inspection on the site.	<input type="checkbox"/>

Section III Particulars of Competent Person

Name	
MOM's Certificate Ref. No.	
Emergency Contact Telephone No	
Pager No	
Email Address	

<p>The above competent person has confirmed that he is responsible to ensure that:</p> <ul style="list-style-type: none"> a) the necessary safety equipment are available and used at the worksite by our staff and the workers. b) the 'SAFETY REQUIREMENT FOR MEN WORKING IN SEWERS, PUMPING MAIN, MANHOLES, CHAMBERS, SUMPS AND OTHER CONFINED SPACES' (under Instructions) and any additional conditions stipulated in the approval are complied with. c) the gas testing/monitoring and safety checks are carried out before certifying the sewer manholes are safe for workers entries. The gas monitoring readings will be recorded on a daily basis and kept for inspection on the site. 	<input type="checkbox"/>
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Submission Attachments

Certificate of Registration of a Factory for the above project	<input type="checkbox"/>
Plan showing the details of the point of sewer connection	<input type="checkbox"/>
Duly completed Activity-Based Risk Assessment Form	<input type="checkbox"/>
A copy of either one of the following certificates to be attached to confirm successful completion of :	
The Confine Space Safety Assessors Course / Manhole Safety Assessor Course	<input type="checkbox"/>
The Sampling and Monitoring of Airborne Contaminants Course conducted jointly by MOM/ENV on or before April 2001	<input type="checkbox"/>