

**CHAPTER 10 EMERGENCY, TROPICAL CYCLONE AND HEAVY
RAINSTORM PROCEDURES****10.1 EMERGENCY PROCEDURES****10.1.1 Definition of an Emergency Situation**

For the purpose of this Chapter, an emergency situation means a situation requiring emergency assistance of fire services/police/ambulance etc. It includes :

- a) an accident which results in death or serious injury;
- b) a fire breaking out which requires rescue crews from FSD to effect control;
- c) a flood that causes or threatens life on site;
- d) leakage of dangerous goods or chemicals; and
- e) any other accident/incident which creates a dangerous situation.

10.1.2 Emergency Procedures**(a) Contractor's Responsibility**

- (i) Formulation of emergency procedures and the organisation of rescue teams to deal with emergency situations before the arrival of the rescue services are the Contractor's responsibility. The Contractor shall be required to provide details of his emergency procedures and rescue teams in his Safety Plan to be submitted to the Architect/Engineer for consent. Architect/Engineer may seek the comments of Police, FSD and Marine Department on such submissions. Copies of the emergency procedures and rescue organisation consented to by the Architect/Engineer should be displayed at each place of work and notice boards. This information should be regularly reviewed/updated. Drills should be arranged regularly to test the efficiency in mobilising the necessary personnel and equipment. Regular joint exercises between the Contractors' rescue teams and FSD's fire and ambulance staff should also

be carried out for the major contracts; and

- (ii) If an emergency situation has arisen, the Contractor shall
- a) call 999 (**NOT** the nearest police station or fire station as this will lead to delay). The caller should provide the following information :
 - the nature of the assistance required and a brief description of the emergency situation, in particular the number of persons injured and their condition;
 - name, contact telephone number or other means of contacting the person calling 999;
 - the address/location (or the International Spheroid UTM Grid Zone reference i.e. **GE/HE/JK/KK** + coordinates in case of a remote site) of the incident/accident; and
 - in case of fire, whether dangerous goods, chemicals or inflammable gas cylinders are/will be involved;
 - b) call the site rescue team (including the nurse or first aider) and/or the fire fighting team to the scene for emergency assistance;
 - c) for an accident in which a large number of persons are injured, notify the Hospital Authority at 2710 2111 or 2805 6888 as well to enable them to get prepared to receive and treat the victims and to decide whether to dispatch medical personnel to the accident scene;
 - d) in case of fire, arrange evacuation of all personnel from the fire scene;
 - e) notify the Architect/Engineer's site staff (the Contractor should be informed of the name and telephone numbers of the persons to contact during and outside normal working hours)

and the Occupational Safety and Health Branch of Labour Dept.;

- f) the nurse or first aider should render first aid to the injured at the spot and the victim should then be carried to the most convenient place where the rescue services can more quickly take over, if the nurse or first aider on site considers that this will not cause further harm to the injured person (should private means of transport be considered appropriate and more expeditious, it is not necessary to wait for the arrival of the rescue services);
- g) ensure that the accident scene is not disturbed (except for preventing further injuries) before the arrival of the Police/Occupational Safety and Health Branch of Labour Department and officers of Marine Department for an accident happening on board a vessel) to carry out an investigation; and
- h) assign someone wearing high visibility clothing to meet the officer-in-charge of the rescue services and provide them with any required information. Transport should be provided at the helipad or berthing point to convey the rescue crews to the scene of the incident.

(iii) For remote sites without land access the above procedure will still apply. If the nurse or responsible person of the Contractor decides that the casualties should be taken to a hospital urgently by helicopter, a 999 call should be made with as many as possible of the following details provided:

- number of casualties
- nature of injury
- whether stretcher/oxygen is required
- landing site where the casualties will be picked up

- details of escort (if any)
- name and contact number of requesting person

The caller should ask for the expected time of arrival of the helicopter. If private means of transport is considered appropriate and more expeditious, it is not necessary to wait for the arrival of the helicopter.

The nurse or first aider on site should ride along with the helicopter (if capacity permits) or the launch (if used) to continue rendering first aid until the injured persons are taken over by an ambulance crew.

- (iv) For an emergency situation on board or involving a vessel in the waters of Hong Kong Special Administrative Region, the vessel's master/operator should immediately call 999 or if a telephone is not available radio Vessel Traffic Centre of Marine Department via VHF Channel 12 or 14. A general description of the situation and the nature of assistance required have to be provided.

(iv) In case serious injuries are incurred by workers on board a vessel within Chinese waters, the following procedures have to be adopted to request a helicopter from the Government Flying Services to evacuate the injured workers. For a vessel equipped with a mobile telephone, the master should call the Hong Kong Marine Rescue Coordination Centre (MRCC) on 2545 4645 or the Marine Police Rescue Centre on 2312 6500. For a vessel not equipped with a mobile telephone, the master should radio VHF Channel 16 (if interference is encountered, try VHF Channel 60 or VHF Channel 62). The following information is to be given:

- name of the vessel
- position of the vessel
- nature of the distress
- type of assistance required

(b) Responsibility of Architect/Engineer's Site Staff

- (i) The most senior site staff present will be responsible for taking such

action as is appropriate to deal with the situation;

- (ii) The Architect/Engineer's site staff must immediately report to the scene of the accident. He should see that the Contractor has taken action to alleviate suffering, make the immediate surroundings safe and control the situation.
- (iii) The Architect/Engineer's site staff should take photographs and then make notes/sketches of the accident, locate eye witnesses, ensure that evidence which will be of use in the subsequent investigation is neither removed nor disturbed (except in circumstances when it obviously causes a further safety hazard).

10.2 **TROPICAL CYCLONE AND HEAVY RAINSTORM PROCEDURES**

10.2.1 **Warning of Tropical Cyclone and Heavy Rainstorm**

- (a) The Hong Kong Observatory (HKO) will, through the Information Services Department Government News Information System, issue hourly summaries of weather warnings to various Government Departments (Lands and Works Group of Departments) whenever Tropical Cyclone Warning Signals, Rainstorm Warning Signals or Landslip Warnings are in force. Weather forecast and warnings are also provided at cost by HKO to special users through fax, telex and direct communication links. Contractors are encouraged to subscribe to this service.
- (b) Architect/Engineer's site offices should make arrangement with their respective departments or other means to ensure the availability of such weather warnings. Site staff should also ensure that the Contractor is aware of the weather situation and that he takes all necessary precautionary measures as detailed in the Safety Plan/emergency procedure.

10.2.2 **Procedure on Site**

(a) **Tropical Cyclone**

- (i) The Contractor must prepare a checklist of steps to be taken as successive tropical cyclone warning signals are hoisted. This checklist must be continually up-dated as the

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works proceed. It should be designed to ensure that:

- all hoardings, temporary structures, plant and other loose objects are properly secured and that workers underground are alerted;
- all drains are cleared and the necessary flood precautions taken;
- all emergency equipment is primed, tested and ready for use;
- workers are evacuated from remote sites;
- the Contractor has on site a full Emergency Gang, including plant operators and fitters, which is to remain on duty throughout the tropical cyclone; and
- the Contractor inspects the site after a tropical cyclone so that any damages to scaffolds, temporary works, electrical installations, cranes etc. are identified and made good.

With regard to vessels engaged in the contract, the checklist should be designed to ensure that:

- all cranes, derricks and equipment are properly secured and loose gear (both above and below decks) are stowed and securely locked;
- all life saving and fire fighting equipment is maintained in good order and is accessible and ready for use continuously;
- all watertight doors and hatches are securely closed;
- small vessels (including transportation launches) proceed to typhoon shelters as permitted by the Director of Marine;
- large ships proceed to typhoon moorings;

- the Contractor inspects the vessels after a tropical cyclone so that any damage is identified and made good.

(ii) During the tropical cyclone the Emergency Gang should take all reasonable measures to minimise the damage resulting from collapse, flooding or other site emergencies. Where relevant, careful observation will also be kept of all surrounding buildings and if there is any doubt as to their stability, the Police and Buildings Department should be contacted immediately by dialling 999.

(iii) On the lowering of tropical cyclone warning signal No. 8, the Architect/Engineer's site staff will return to the site and prepare a report of any damage which has occurred. A joint inspection should also be made on the stability of all surrounding structures.

(iv) For sites at outlying islands, the Contractor should provide emergency shelters on land to cater for the situation that some workers cannot be evacuated from the site in time. Such shelters should be strong enough to withstand tropical cyclone conditions and should have water and food sufficient and ready for use.

(b) Heavy Rainstorm

(i) The Contractor must prepare a checklist of steps to be taken upon receipt of a rainstorm warning. It should be designed to ensure that :-

- precautionary measures are taken to safeguard persons working below ground;
- all drains are cleared and the necessary flood precaution taken; and
- all emergency equipment is primed, tested and ready for use.

(ii) During periods of such warning, it may be necessary to have the

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Emergency Gangs of certain sites on stand-by. Drainage Services Department (**Hotline 2300 1110**) should be informed immediately whenever flooding or blockage of drains within the site affects adjacent land.

- (iii) After a prolonged heavy rainstorm, the Contractor and the Architect/Engineer's site staff should carry out inspections to identify any damage that has occurred.

10.3 LIAISON WITH GOVERNMENT DEPARTMENTS

10.3.1 The Contractor should call 999 or contact the concerned departments of the Planning, Environment, Lands and Works Groups for assistance whenever :

- (a) flooding or blockage of drain within the site affects adjacent land or vice versa;
- (b) landslip within the site affects adjacent land or vice versa; or
- (c) works within the site affect stability of adjacent buildings.

10.3.2 The division of responsibilities of the Planning, Environment, Lands and Works Groups of Departments in dealing with the above emergencies is covered by the Joint Works Bureau Technical Circular No. 9/98 and Planning, Environment and Lands Bureau Technical Circular no. 5/98 - Natural Disaster Emergency Organisation - Responsibilities of the Works Bureau and the Planning, Environment and Lands Bureau Groups of Departments. The emergency contacts of these departments and related information are listed out in the Works Bureau Emergency Directory.

10.3.3 Works departments are requested to refer to Security Branch Circular No. 5/96 - Government's Emergency Response System and Security Branch Circular No. 9/96 - Government Secretariat Emergency Monitoring and Support Structure for responsibilities of other Government departments and their emergency contacts.