

BANGLADESH RURAL ELECTRIFICATION BOARD

PBS INSTRUCTION 100-75

**EMERGENCY PROCEDURE
AND
DISASTER MANAGEMENT**

BANGLADESH RURAL ELECTRIFICATION BOARD
PBS INSTRUCTION 100-75

Approval Date: 19/02/2020

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SUBJECT: EMERGENCY PROCEDURE AND DISASTER MANAGEMENT

1.0 DEFINITION

- (01) **Disaster:** Undesirable damage from natural, manmade, sabots', or any other reasons.
- (02) **Disaster Management:** A series of activities for the purpose of reduction of damage due to disaster, during disaster and after disaster.
- (03) **Emergency Procedure:** Activities to encounter disaster before, during and after disaster.
- (04) **Rescue:** Save the men and assets from damage.
- (05) **Rescue Procedure:** Specific type procedure that must be maintained for rescue specific type victim.

2.0 REASONS OF DISASTER

There are various reasons of disaster, such as effect of Earth Quake, Tsunami, Fire, Cyclone, Storm, Fire, Flood, Water Over-Flow, Tidal, Drought etc. These are natural disaster. Apart from natural disaster, there is man made disaster also, such as war, exhaust gas emission, unplanned industrial development, unplanned township development etc. In this instruction the disaster related with electrical network system, will be discussed.

3.0 DISASTER FROM EARTHQUAKE AND TSUNAMI

3.01 Definition

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- (01) **What is Earthquake:** Earthquake is vibration of earth. In fact earth is vibrating continuously in each and every moment. Those vibrations are so in smaller scale that nobody can feel it's existence. But when the magnitude of vibration of earth is high we can feel it and it may act as disaster.
- (02) **Reason of Earthquake:** Earth releases energy gained inside it due to overheat, pressure developed from chemical reaction of volcano or head on collision of tianic plate.
- (03) **Tsunami:** Over-flow of water due vibration/earthquake occur at the bottom of Ocean.

3.02 Characteristics of Earthquake

There are three types of earthquake. They are-

- (01) P-Wave: Intensity of earthquake is higher at some interval and lesser just after higher.
- (02) S-Wave: Vibration earth is upward and downward.
- (03) Surface-Wave: Vibration mainly on the surface of earth.

3.03 Effect of Earthquake

The following effects may be happened due to earthquake-

- (01) Damage of houses, roads, bridges, and other infrastructures;
- (02) Damage of life;
- (03) Damage of trees, crops and nature;
- (04) Land slide;
- (05) Earth surface crack;
- (06) Tsunami;
- (07) Fire.

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3.04 Scale and Intensity of Earthquake

Richter Scale	Magnitude
Less than 5	Small
5 - 6	Moderate
6 - 7	Large
7 - 7.8	Major
7.8 or above	Great

3.05 Responsibility in different phase of Earthquake

3.05.1 Alert Phase Disaster of Earthquake:

The following precaution should be taken in alert phase of earthquake to minimize damage of life and assets-

- (01) Make building abide by the approved building code;
- (02) Check gas, water, electric and sewerage line in every 6(six) months and keep record properly;
- (03) Marking emergency outgoing path of the building;
- (04) Anchor furniture, freeze and any other vertical nature items;
- (05) Store heavy weight items on the floor;
- (06) Save emergency phone numbers, such as ambulance, Fire Brigade, Volunteer rescuer;
- (07) Emergency Evacuation practice should be done in each months;
- (08) Emergency items, such as whistle, cell phone, power pac, hammer, helmet, dry food, emergency medicine, first aid box, etc. should be kept in a bag and hang it near outgoing door;

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- (09) Make Shelter, Control room, volunteer rescuer team;
- (10) Emergency treatment center;
- (11) Turn off gas stove after cooking;
- (12) Make committee headed by responsible officer and distribute responsibility for rescue, fire-fighting, electric line repair and maintenance etc.

3.05.2 Disaster Phase of Earthquake:

The following precaution should be taken in disaster phase of earthquake phase to minimize damage of life and assets-

- (01) Go out the building within 5 to 10 second and take place in open place away from high rise building, billboard, tree, electric pole and other similar type of structure;
- (02) Turn off gas stove, electric line, water line etc.;
- (03) If you unable to go out within 5 to 10 second, take shelter under strong and hard table, cot, with helmet/ cushion/ pillow on head;
- (04) Don't take shelter near items, such as, book shelf, almira, Show case etc.;
- (05) Don't take shelter under hanging items, such as ornamental lights;
- (06) Don't use lift;
- (07) Shut off all feeders of all sub-stations.

3.05.3 Recovery Phase of Disaster of Earthquake:

The following measure should be taken in recovery phase of earthquake to minimize damage of life and assets-

- (01) To save charge don't use cell phone unnecessarily;
- (02) If you are caught under heavy weight, don't use our energy unnecessarily. Wait for rescuer until 72 hours. Make sound by hard body to draw attention of rescuers;
- (03) If you are at out side don't enter into the building for any valuable items. Life is more valuable than any other. Keep in mind 2nd, 3rd, 4th --- wave can hit just after few

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minutes;

- (04) Don't try to rescue anybody if you are not properly trained for that purpose;
- (05) Don't try to remove debris if you are not properly trained how to remove;
- (06) Find out and identify damage of electric system using BREB Form No. 100-75-01.
- (07) All committee will function as per responsibility pre-allocated;
- (08) Keep contact with Central Committee of BREB and report if there any damage;
- (09) Keep away dead body if any as per his/her respective religion;

4.0 DISASTER FROM FIRE

4.01 Definition

- (01) **Fire:** Fire is the result of continuous reaction chemical reaction between fuel, oxygen (O₂) and sufficient heat.
- (02) **Fuel:** Burning materials that has latent heat energy.
- (03) **Oxygen(O₂):** Oxygen is one kind of gas that helps fire.
- (04) **Fire Triangle:** A triangle each arm of which represents Fuel, Oxygen(O₂) and Heat respectively produced fire is called Fire Triangle.
- (05) **Fore Orders:** The policy and procedures for dealing in case of fire and fire accident.

4.02: Introduction

Fire Orders are applicable to all Stores/Warehouses and Offices under the Bangladesh Rural Electrification Board and PBSs. These orders lay down the policy and procedure for dealing with the cases of fires and fire accidents in the areas mentioned above. All personnel of all Categories and Grades irrespective of their status and position bear responsibility for the prevention of fires and fire accidents. This can be accomplished by acting wisely, carefully and vigilently in the different spheres of activities to all personnel.

4.02 Classification, Type and Principle of Fire

According to British Standard (BS4547) there are 5-classes of fire. The following table

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