

Document Control Sheet

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BESA Earthquake Plan

March 2011

WHAT TO DO BEFORE AN EARTHQUAKE

It is essential to know if the building has been constructed with earthquake protection. Refer to architect and building blueprints and plans. These will:-

- Enable the location of all hazards to be shown.
- Assist in the preparation of emergency response procedures.
- Enable evacuation routes to be shown.
- Identify the location of safe assembly areas.
- Enable the location of the following items to be shown.
 1. power line routes
 2. gas, water and sewer lines
 3. outside taps
 4. mains switches and shut-off valves
 5. mechanical equipment
 6. hazardous materials storage
 7. fire extinguishers
 8. first aid equipment

Survey the school with evacuation in mind.

Look for potential post-earthquake hazards **INSIDE** the building:

- Suspended ceilings.
- Pendant light fixtures.
- Large windows (either exterior or interior) that are not protected against shattering.
- Tall bookcases or cabinets that may topple because they are not bolted to the wall.
- Classroom equipment such as computers, TVs, VCRs, stereos, and slide projectors.
- Stairs.
- Storage areas for cleaning and painting products and/or other hazardous materials.
- Places where the main gas supply or electric current enters the building.

ACTIONS TO TAKE IN SCHOOL (AND AT HOME)

- Fasten shelves securely to walls.
- Place large or heavy objects on lower shelves.
- Store breakable items such as bottled foods, glass, and china in low, closed cabinets with latches.
- Hang heavy items such as pictures and mirrors away from beds, couches, and anywhere people sit.
- Brace overhead light fixtures.
- Repair any defective electrical wiring and leaky gas connections. These are potential fire risks.
- Repair any deep cracks in ceilings or foundations. Get expert advice if there are signs of structural defects.
- Store weed killers, pesticides, and flammable products securely in closed cabinets with latches and on bottom shelves.

Identify safe places inside

- Under sturdy furniture such as a heavy desk or table.
- Against an inside wall.
- Away from where glass could shatter around windows, mirrors, pictures, or where heavy bookcases or other heavy furniture could fall over.

The current BESA emergency procedure policy designates safe places (internal corridors).

Designate evacuation routes that avoid as many hazards as possible. In addition, decide on alternate routes to your main routes.

Evacuation should **NEVER** be automatic.

There may be more danger outside your building or facility than there is inside.

There may be no safe assembly area outside.

There may be no clear routes to get outside, and alternate routes may need to be cleared.

Before any decision is made to vacate all or part of a school, someone must find out that there IS

- a safe route out, and
- a safe place to assemble the students outside.

Look for potential post-earthquake hazards **OUTSIDE** the building:

- Power lines.
- Trees.
- Areas near buildings that may have debris fallen on them - parapets, roof tiles, chimneys, glass etc.
- Routes past concrete block walls.
- Covered walkways.
- Places under which large gas mains run.
- Areas near chain link fences (can be electric - shock hazard when live wires touch).
- Hazardous materials storage areas.

Designate open areas outside that are without overhead hazards and removed from potential danger spots; choose a spot such as a park for back-up.

BESA has designated areas

Assembly areas should not be so remote from the facility that students and staff will not have easy access to bathrooms, phones and the student release point.

Choose which person(s) will have the responsibility to reconnoitre after a quake and report findings to administration and co-workers.

EVERYONE should be informed about the plans:

- Once routes and assembly areas have been chosen, make floor plans and maps; give them to everyone.
- Tell all staff, students and parents about the plans made and the routes chosen.
- Make it clear that a post-earthquake evacuation route differs from a fire evacuation route and that alternate routes may need to be used.
- Hold drills and exercises two or three times a year; practice alternate routes.

WHAT TO DO DURING AN EARTHQUAKE

Stay as safe as possible during an earthquake. Be aware that some earthquakes are actually foreshocks and a larger earthquake might occur. Minimize your movements to a few steps to a nearby safe place and stay indoors until the shaking has stopped and you are sure exiting is safe.

If indoors

- **DROP** to the ground; take **COVER** by getting under a sturdy table or other piece of furniture; and **HOLD ON** until the shaking stops. If there isn't a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures or furniture.
- Stay in bed if you are there when the earthquake strikes. Hold on and protect your head with a pillow, unless you are under a heavy light fixture that could fall. In that case, move to the nearest safe place.
- Use a doorway for shelter only if it is in close proximity to you and if you know it is a strongly supported, loadbearing doorway.
- Stay inside until the shaking stops and it is safe to go outside. Research has shown that most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
- Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.
- **DO NOT** use the elevators.

If outdoors

- Stay there.
- Move away from buildings, streetlights and utility wires.
- Once in the open, stay there until the shaking stops. The greatest danger exists directly outside buildings, at exits and alongside exterior walls. Ground movement during an earthquake is seldom the direct cause of death or injury. Most earthquake-related casualties result from collapsing walls, flying glass and falling objects.

If in a moving vehicle

- Stop as quickly as safety permits and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires.
- Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that might have been damaged by the earthquake.

If trapped under debris

- Do not light a match.
- Do not move about or kick up dust.
- Cover your mouth with a handkerchief or clothing.
- Tap on a pipe or wall so rescuers can locate you. Use a whistle if one is available. Shout only as a last resort. Shouting can cause you to inhale dangerous amounts of dust.

WHAT TO DO AFTER AN EARTHQUAKE

- Access emergency equipment.
- Expect aftershocks.
- Gather information and make decisions.

Administrators:

1. Assess the situation - inside and outside.
2. Decide how much evacuation is necessary- all or parts of buildings.
3. Choose the route(s) and the assembly place.
4. Communicate directions to all teachers.

Teachers:

Do NOT automatically rush your class out into the corridor or out an exterior door.

1. Wait to hear from an administrator, or the designated scout, about what to do.
In circumstances in which a lot of time passes and you do not hear anything, you will have to make decisions yourself:
2. If you are in a dangerous classroom--the ceiling has collapsed, wires are crackling, broken glass or chemicals are all over the floor, you smell gas or smoke--you will want to leave, BUT you must do some reconnaissance before you move to safety.
3. Get someone to cover the students while you find the best way to get out and the safest place to go. You may not need to go outside, but merely move from one inside room to another.
4. Account for all your students before you leave the classroom
If your classroom is dangerous, you may want to take injured students with you, or move them a short way to a safer room. If you must leave an injured student, post a large, visible sign indicating the student is there.
The lights will probably be out - ALWAYS have a flashlight that works.
5. Be alert, as you lead students down stairwells or corridors, to anything (dangling lights, ceiling struts, broken glass, slippery floors) that could hurt them or you.
In an aftershock, everyone should duck and cover until the shaking stops.
6. Once you get to your new, safe place, communicate your location to the administrator--by sending a runner, using a walkie-talkie, or returning to your classroom to post a note.

General Advice

- **Expect aftershocks.** These secondary shockwaves are usually less violent than the main quake but can be strong enough to do additional damage to weakened structures and can occur in the first hours, days, weeks, or even months after the quake.
- **Listen to a battery-operated radio or television.** Listen for the latest emergency information.
- **Use the telephone only for emergency calls.**
- **Open cabinets cautiously.** Beware of objects that can fall off shelves.
- **Stay away from damaged areas.** Stay away unless your assistance has been specifically requested by police, fire, or relief organizations. Return home only when authorities say it is safe.
- **Be aware of possible tsunamis if you live in coastal areas.** These are also known as seismic sea waves (mistakenly called "tidal waves"). When local authorities issue a tsunami warning, assume that a series of dangerous waves is on the way. Stay away from the beach.
- **Help injured or trapped persons.** Remember to help your neighbors who may require special assistance such as infants, the elderly, and people with disabilities. Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. Call for help.

- **Clean up spilled medicines, bleaches, gasoline or other flammable liquids immediately.** Leave the area if you smell gas or fumes from other chemicals.
- **Inspect the entire length of chimneys for damage.** Unnoticed damage could lead to a fire.

Inspect utilities.

- **Check for gas leaks.** If you smell gas or hear blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.
- **Look for electrical system damage.** If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice.
- **Check for sewage and water lines damage.** If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water by melting ice cubes.

GUIDANCE FOR TEACHERS

Before

- Hold classroom discussions.
- Practice drills.
- Hold hazard hunts, correct hazards where possible.
- Appoint designated helper.

During

- Issue the TAKE COVER order at first sign of tremor.
- Talk calmly to reassure students.
- Review evacuation procedures.

After

- Instruct students to evacuate to designated assembly area.
- Be prepared to choose alternative escape route in case of fire or exit blockage.
- Take class register.
- Administer first aid, if necessary.
- Do not re-enter building unless instructed.
- Reassure students.
- Remind students that parents may be delayed in calling for them.
- Encourage students to talk about their fears and anxieties.

GUIDANCE FOR STUDENTS

Before

- Learn what to expect and what to do during an earthquake.

- Identify hazards in the classroom, school or home.
- Participate in earthquake drills.
- Know the name and address of your next of kin.

During

- Follow teacher's instructions.
- Take cover under a desk or table.
- Count to 60.
- If out of the classroom, take cover in a doorway, count to 60, and join the nearest class when shaking stops.

After

- Follow evacuation instructions from teacher or designated monitor.
- Wear shoes.
- Comfort and reassure other students.
- Do not re-enter school without permission.
- Do not go home without permission.
- Talk about what has happened.

GUIDANCE FOR HEAD TEACHER

Before

- Set up a chain of command, and define staff roles and responsibilities.
- Establish earthquake and evacuation drills for all staff and students.
- Be aware of lines of communication.
- Designate an outdoor evacuation assembly area.
- Ensure staff have knowledge of first aid.

During

- Take cover.

After

- Stay calm: your attitude will act as a role model for everyone.
- Ensure that all power, fuel, and water mains have been shut off.
- Account for all staff and students.
- Allow dismissal of students only when it is safe to travel and a designated adult comes; keep accurate records of students released.

GUIDANCE FOR PARENTS/GUARDIAN

Before

- Be aware of schools earthquake policy and procedures.
- Provide school with name of alternative guardian.

During

- Take cover under table, bed, or in doorway away from windows.

After

- Do not phone the school.
- When safe to travel, go to the school to collect your child – your child will not be released otherwise.
- If you are unable to reach the school, contact the designated guardian to collect your child.

GUIDANCE FOR CARETAKERS

Before

- Coordinate with head teacher to identify and eliminate, if possible, potential interior and exterior earthquake hazards.
- Establish earthquake drill with responsibilities for shutting off power, fuel and water mains clearly described.
- Know location and use of fire fighting equipment.

During

- Stay calm and take cover.

After

- Immediately carry out pre-arranged duties.
- Report to head teacher and assist in search and rescue if necessary.
- With supervisor, determine safety of building for possible re-entry.
- Assist in setting up emergency facilities, if necessary.

GUIDANCE FOR BUS DRIVERS/MONITORS

Before

- Be acquainted with school earthquake procedures.

During

- Stop the bus away from power lines, tall buildings and bridges etc, pull into side road or driveway, if possible.
- Stay in the bus.
- Take cover between seats.

After

- If roads are passable, proceed with caution.
- If bus is immobilised in an unsafe position, evacuate to an open area.
- Administer first aid if necessary.
- Contact school if possible.
- Stay with students until help arrives or until instructed to move.

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