

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
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March 17, 2004

EMS  
Instruction Memorandum No. ID-2004-046  
Expires: 09/30/2005

To: ICT  
From: State Director  
Subject: Seismic Safety Program and Policy

**Program Area:** Health and Safety

**Purpose:** The purpose of this Instruction Memorandum (IM) is to establish policy and guidelines for the Idaho Bureau of Land Management (BLM) Seismic Safety Program.

**Policy/Action:** The Seismic Safety Program will provide guidelines for BLM facilities to follow before, during, and after an earthquake. Each facility will conduct a seismic safety inspection and findings that will take longer than 30 days to be corrected will need to have a written Abatement Plan.

**Timeframe:** This IM is effective immediately.

**Background:** Earthquakes strike suddenly, violently and without warning. Identifying potential hazards ahead of time and advance planning can reduce the dangers of serious injury or loss of life from an earthquake.

**Manual/Handbook Sections Affected:** None.

**Coordination:** This IM was coordinated with the State Safety and Occupational Health Manager, Human Resources Officer, the DSD for Support Services, and the DSD for Resources.

**Contact:** For questions or further information, please contact Jan Peterson, State Safety and Occupational Health Manager at (208) 373-4030.

**Lower Snake River District with Union:** No Union notification or negotiation is required.

Signed  
Michael A. Ferguson for  
K Lynn Bennett

Authenticated  
Sylvia Graves  
Administrative Assistant

Attachment  
1 – Idaho BLM Seismic Safety Program Guidelines (5 pp)

# Idaho BLM Seismic Safety Program Guidelines

An earthquake is a sudden shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. Earthquakes can cause buildings and bridges to collapse, telephone and power lines to fall, and result in fires, explosions and landslides.

Employees on travel status to costal states need to be aware that earthquakes can also cause huge ocean waves, called Tsunamis. These waves travel long distances over water until they crash into coastal areas. The following information provides general guidelines for earthquake preparedness and safety.

## I. Pre-Earthquake Safety and Preparedness

### A. Know the terms associated with earthquakes.

1. Earthquake—a sudden slipping or movement of a portion of the earth's crust, accompanied and followed by a series of vibrations.
2. Aftershock—an earthquake of similar or lesser intensity that follows the main earthquake.
3. Fault—the earth's crust slips along a fault—an area of weakness where two sections of crust have separated. The crust may only move a few inches to a few feet in a severe earthquake.
4. Epicenter—the area of the earth's surface directly above the origin of an earthquake.
5. Seismic Waves—are vibrations that travel outward from the center of the earthquake at speeds of several miles per second. These vibrations can shake some buildings so rapidly that they collapse.
6. Magnitude—indicates how much energy was released. This energy can be measured on a recording device and graphically displayed through lines on a Richter Scale. A magnitude of 7.0 on the Richter Scale would indicate a very strong earthquake. Each whole number on the scale represents an increase of about 30 times the energy released. Therefore, an earthquake measuring 6.0 is about 30times more powerful than one measuring 5.0.

### B. Conduct a facilities inspection to look for items that could become a hazard in an earthquake. Each finding that cannot be corrected within 30 days must have an Abatement Plan. The following is a list of seismic safety considerations.

1. Fasten shelves securely to walls. Free standing bookcases over five feet tall should be located and secured to a wall.

2. Place large or heavy objects on lower shelves.
3. Store breakable items such as bottled foods, glass, and dishes in low, closed cabinets with latches.
4. Hang heavy items such as pictures and mirrors away from furniture where people sit.
5. Brace overhead light fixtures.
6. Repair defective electrical wiring and leaky gas connections. These are potential fire risks.
7. Secure water heaters by strapping them to wall studs and bolting them to the floor.
8. Repair any deep cracks in ceilings or foundations. Contact the appropriate employees if there are signs of structural defects.
9. Store weed killers, pesticides, and flammable products securely in closed cabinets with latches and on bottom shelves.
10. Identify safe places in each room.
  - a. Under sturdy furniture such as a heavy desk or table.
  - b. Against an inside wall.
  - c. Away from where glass could shatter around windows, mirrors, pictures, or where heavy bookcases or other heavy furniture could fall over.
11. Locate safe places outdoors.
  - a. In the open, away from buildings, trees, telephone and electrical lines, overpasses, or elevated expressways.
  - b. Contact your local emergency management office or American Red Cross chapter for more information on earthquakes.

## **II. During an Earthquake Safety**

### **A. If indoors**

1. Take cover under a table or desk, or in a door way, or against an inside wall and hold on.

2. Stay inside.

3. The most dangerous thing to do during the shaking of an earthquake is to try to leave the building because objects can fall on you.

B. If outdoors:

1. Move into the open, away from buildings, street lights, signs, trees, and utility wires.

2. Once in the open, stay there until the shaking stops.

C. If in a moving vehicle:

1. Stop quickly and stay in the vehicle.

2. Move to a clear area away from buildings, trees, overpasses, or utility wires.

3. Once the shaking has stopped, proceed with caution. Avoid bridges or ramps that might have been damaged by the quake.

### **III. Post-Earthquake Office Mitigations**

A. Make sure all employees know how to respond after an earthquake.

B. Teach all employees how and when to turn off gas, electricity, and water.

C. Remind employees how and when to call 9-1-1, police, or fire department and which radio station to tune to for emergency information.

D. Have disaster supplies on hand.

1. Flashlight and extra batteries

2. Portable battery-operated radio and extra batteries

3. First aid kit and manual

4. Emergency food and water

5. Non-electric can opener

6. Employees should keep extra essential medicines

7. Sturdy shoes and some extra clothing

- E. Develop an emergency communication plan in case employees are separated from one another during an earthquake; develop a plan for reuniting after the disaster.
  - 1. Know where employee emergency information is kept in each office.
- F. Be prepared for aftershocks. Generally aftershocks are smaller than the main shock, aftershocks cause additional damage and may bring weakened structures down. Aftershocks can occur in the first hours, days, weeks, or even months after the quake.
- G. Help injured or trapped persons. Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. Call for help.
- H. Listen to a battery-operated radio or television for the latest emergency information.
- I. Remember to help your neighbors who may require special assistance--infants, the elderly, and people with disabilities.
- J. Stay out of damaged buildings. Return office only when authorities say it is safe.
- K. Use the telephone only for emergency calls.
- L. Clean up spilled medicines, bleaches or gasoline or other flammable liquids immediately. Leave the area if you smell gas or fumes from other chemicals.
- M. Open closet and cupboard doors cautiously.
- N. Inspect the entire length of chimneys carefully for damage. Unnoticed damage could lead to a fire.
- O. Inspecting utilities in a damaged office.
  - 1. Check for gas leaks--If you smell gas or hear blowing or hissing noise, open a window and quickly leave the building.
    - a. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's office.
    - b. If you turn off the gas for any reason, it must be turned back on by a professional.
  - 2. Look for electrical system damage.
    - a. 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.

b. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice.

3. Check for sewage and water lines damage.

a. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber.

b. 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.