



BERKELEY LAB
LAWRENCE BERKELEY NATIONAL LABORATORY



U.S. DEPARTMENT OF
ENERGY

DZAC April 2012

Opening Remarks



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DZAC News

Items of Interest

- Review of Purpose and Expectations
 - Bring safety suggestions, complaints or concerns from your workgroup directly to Senior Management
 - Communicate status or resolution of concerns back to your workgroup
 - Present the DZAC training subjects to your workgroup
 - Sign-in sheets are returned to Lisa, Janice, Gene

Items of Interest

- Safety Spot Awards Issued:
 - Robert Romero - Preventative Action
 - Joe Cullen - Preventative Action
 - Don Beaton - Preventative Action
 - Mike Carreon - Safety Attitude
 - John Patterson - Preventative Action
 - Vill Anabeza – Preventative Action
 - Kat Bradford – Preventative Action
 - Sau Pham – Preventative Action

Items of Interest

- Ladders
 - Three points of contact: Must use at least one hand while climbing
 - Clarification: Ladder tie-off at 6 feet, not 4 feet

Facilities Incident Notification Process

DOE requires the categorization and notification of incidents in a timely manner

- Usually within 2 hours from the *onset* of an incident for categorization
- Two hours after categorization to notify
- Can be as short as 15 minutes
- Facilities has often failed to meet this requirement
 - Due to failure to notify management
 - Lack of sufficient information to quickly classify

Incident Notification Process Developed

Facilities Incident Notification Process

- The Facilities Incident Notification Process is intended to provide a framework for the immediate notification to management of an incident
- ALL Facilities Employees Required to *Immediately* Notify WRC of *Significant* Incidents
 - Work Request Center is x6274
 - 07:00 AM to 4:00 PM Monday through Friday
- An Incident is any failure of a service, system and/or utility, or any occurrence (possible ORPS) that has the potential to *significantly* impact safety (major injuries), science and/or business

Facilities Incident Notification Process

Relay what information you have at the moment

- Teams may be dispatched to gather additional information and to preserve “evidence”
- Don’t wait to see how things “develop”
- Can include an “EM” work order
- Non-Inclusive examples:
 - If in doubt – report!

Facilities Incident Notification Process

Things to Report

- Major Injury
- Chemical spill / exposure
- Water into storm drain
- Building evacuation
- Power failure
- Emergency situations
- LOTO / stored energy
- Hot work Incident
- Major vehicle collision
- Unexpected discovery of electrical energy
- “Near-miss” incident
- Equipment failure shuts down operations
- Hazmat or shipping violation
- Penetration Permit violation
- Fall Protection violation
- Has lab wide / PR effects

Facilities Incident Notification Process

Things NOT to Report

- First aid, Strain/sprain, back injury, illness
- Minor equipment failures, repairs
- Broken pipe with minor damage
- Low Risk safety hazards
- Minor safety hazards must still be corrected and/or reported, but not through this process
- Minor property damage
- Minor vehicle collision
- Questions?



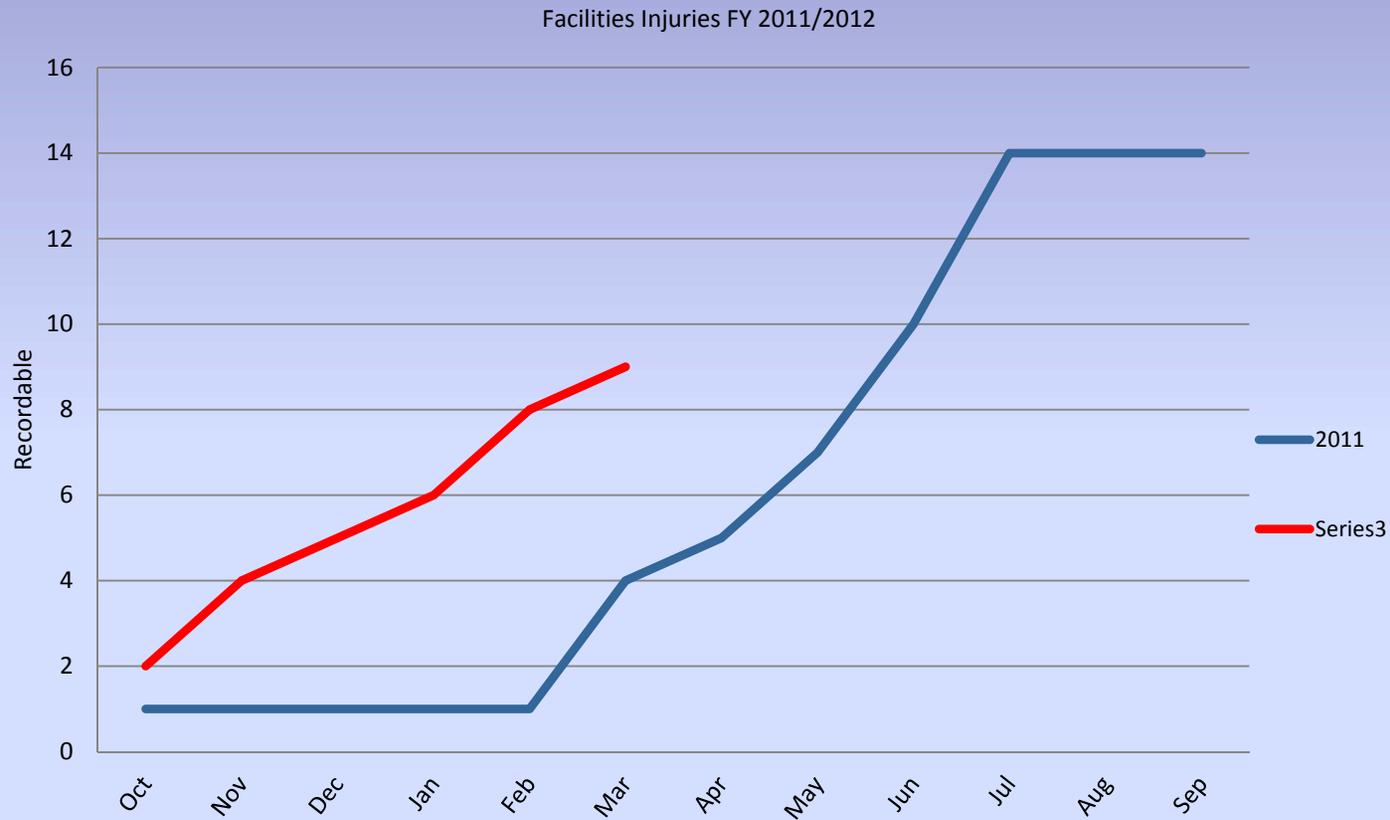
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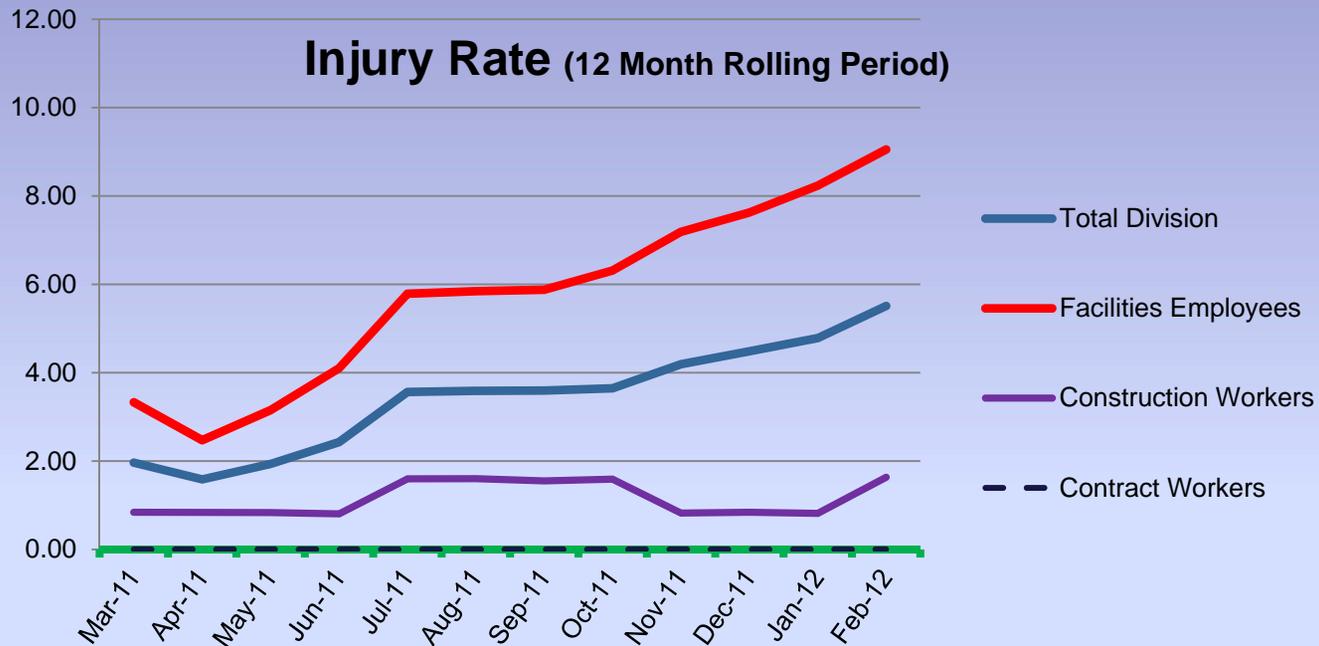
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**Expectation:
Zero Injuries**

Expectation: Zero Injuries



Expectation: Zero Injuries



Injury Rates	
Facilities Workers	9.05
Construction Workers	1.63
Contract Workers	0
Total Division	5.51

Expectation: Zero Injuries

Who is Responsible?

Craft	No.	Record	First Aid	Back / Neck	Finger	Foot / Ankle	Arm	Knee	Shoulder	Head	Hand / Wrist	Leg	Abdomen	Eye
Administration	1		8%					1						
Laborer	3		23%				1					2		1
Carpenter	3		23%	2	1									
Custodian	8	66%	15%	1	1	2		1	1	1	1			
Electrician	1		8%	1										
Material Handler	3	22%	8%				1		1		1		1	
PMT	2		15%					1			1			

Expectation: Zero Injuries

Injury Type:

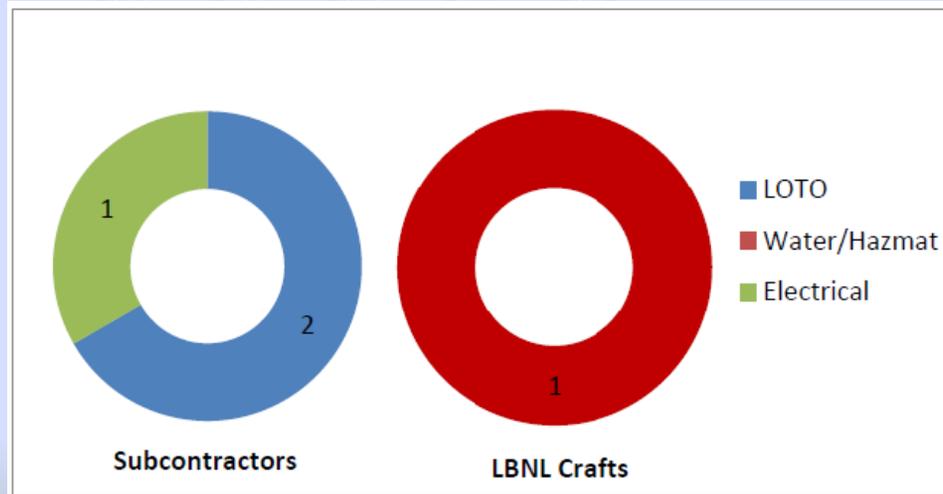
Injury Type	Number	Recordable	First Aid	Total
Strains / Sprains	10	32%	14%	45%
Contusion	4	0%	18%	18%
Dermatitis	3	0%	14%	14%
Fracture	1	5%	0%	5%
Foreign Body	1	0%	5%	5%
Laceration	1	0%	5%	5%
Abrasion	1	0%	5%	5%
RSI	1	5%	0%	5%
Total	22			

Expectation: Zero Injuries

Occurrence Reports:

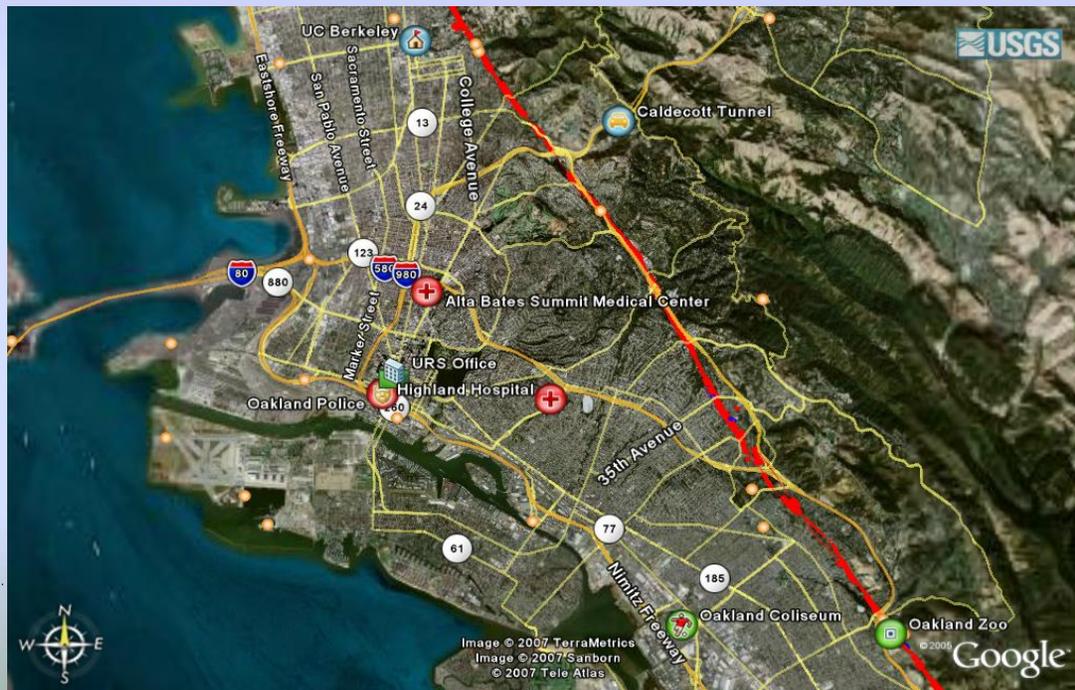
ORPS by Number and Severity

Goal (Green Line) = 0



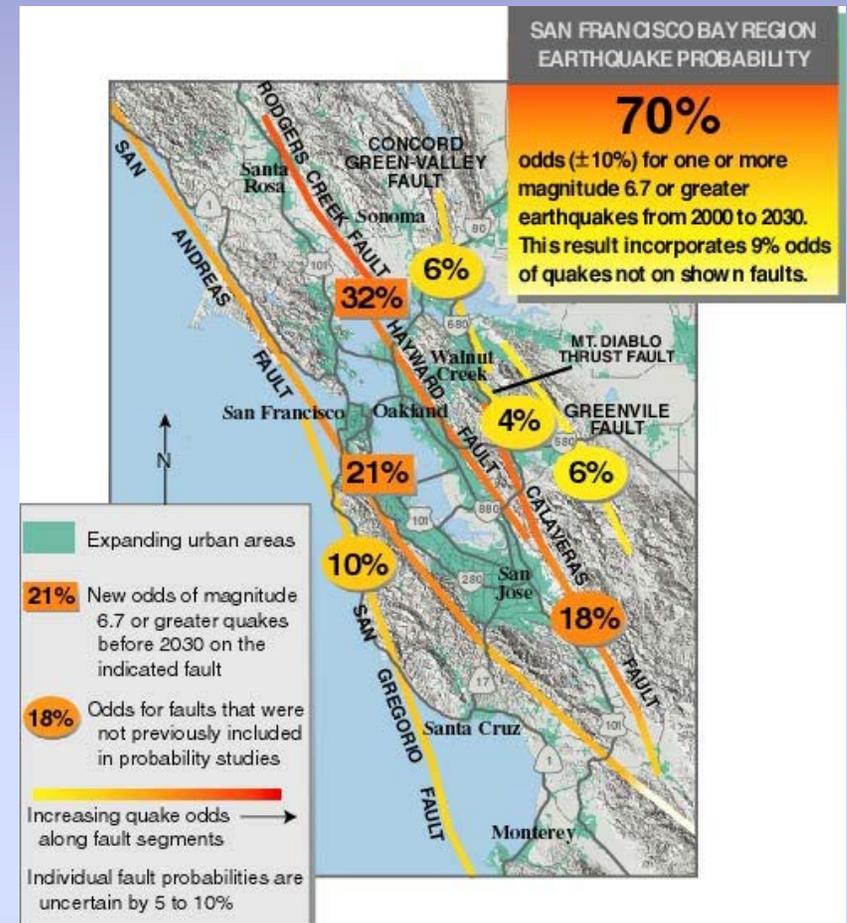
Risk

- Conference room is 2,376 feet from the Hayward Fault
- Alameda and Contra Costa Counties highest number of dangerous faults
- Hayward Fault (all segments) capable of 7.0+ M



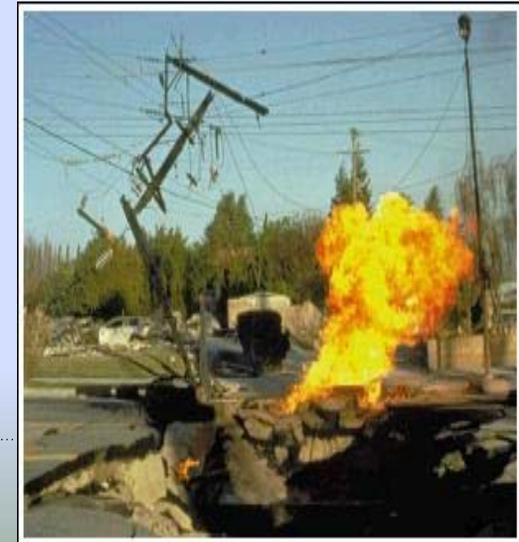
Risk

- 32% chance on Hayward
 - Highest in Bay Area A faults
- 99% 6.7M Bay Area/30 yrs.
- 2-3' horizontal displacement
- 4-10' localized
- 750-3,000 lives lost
- Economic loss \$235 B
- 60% EBMUD customers out of water for 2 months



What You Can Expect

- 1,700 road closures in Alameda County
- Berkeley Hills BART tunnel closed for 2 years
- PG&E goal is restoration in 3 days!
 - Loma Prieta was 6 months in some locations
- Majority of refineries located 3 to 13 miles from the fault

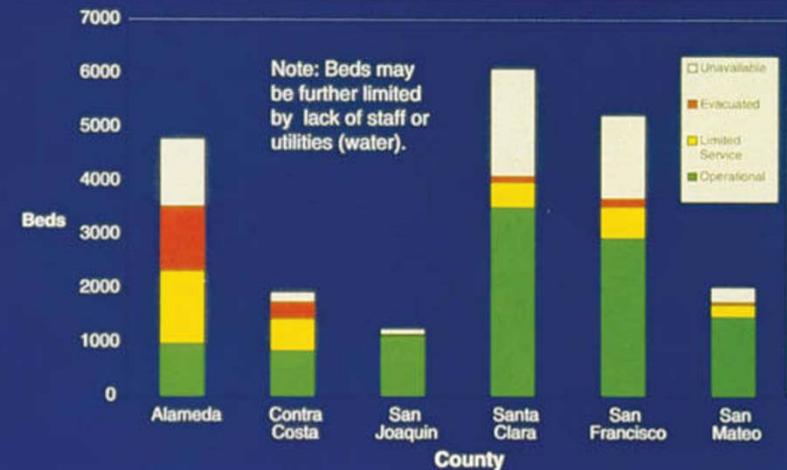


What You Can Expect

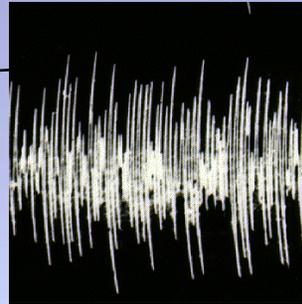
- 150,00 housing units uninhabitable
- Uncontrolled fires
- Hazmat concerns
- Most Alameda County hospitals in fault zone
- Many schools also
- Police and Fire not available



Status of Hospital Beds



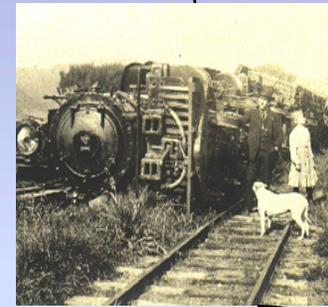
Earthquake Cascade of Disasters



Earthquake



Fires



Train Wreck



Landslides



Transportation



Building Collapse



Dam Failure



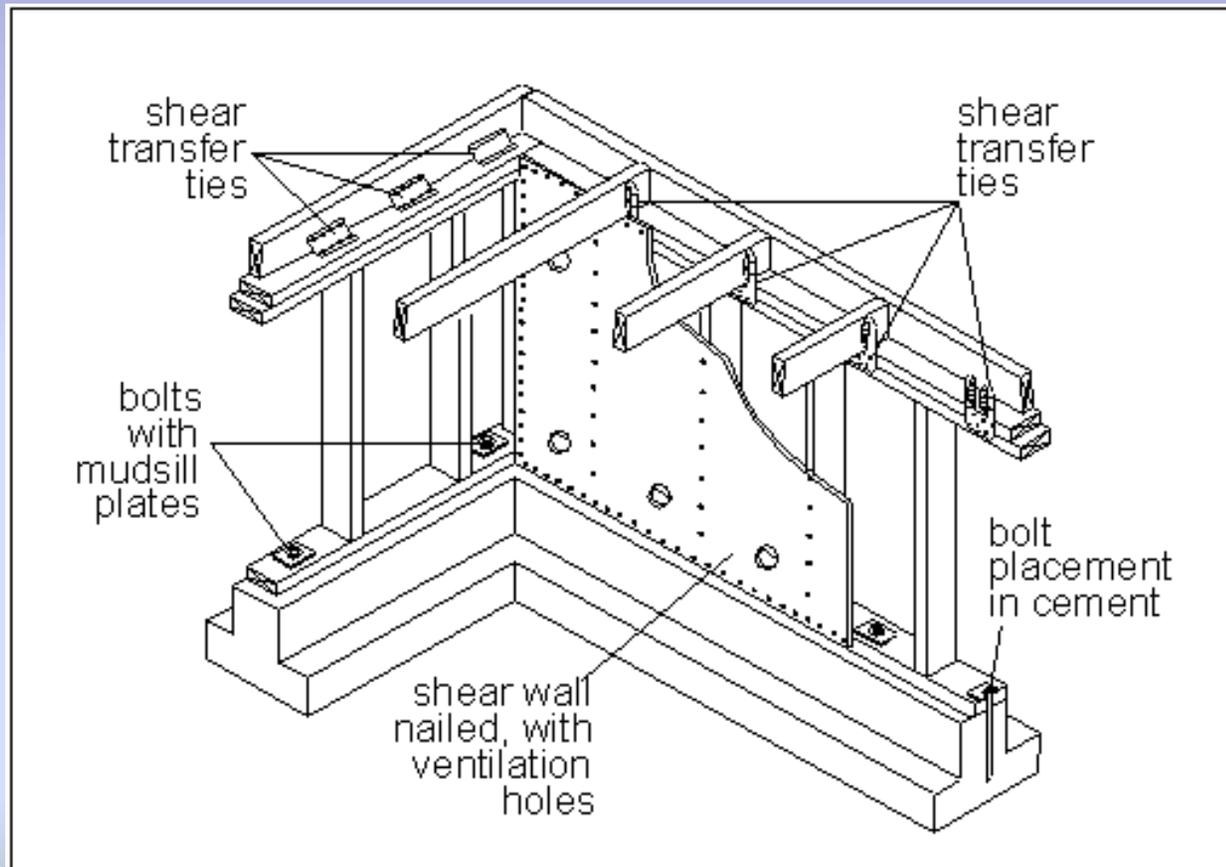
Utility Failure

Be Prepared Now at Home and at Work

- Businesses are the lowest on the response hierarchy
- Disasters are more likely to happen off hours
- Employees likely to return if family is safe
- Expect to be on your own for 48 hours (2 weeks? 3 months?)
- Go bags
- Learn steps to take before, during and after

Preparedness - Before

Structural Mitigation



Preparedness

Structural Mitigation

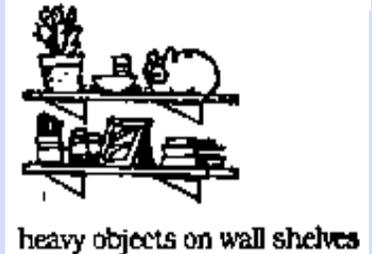
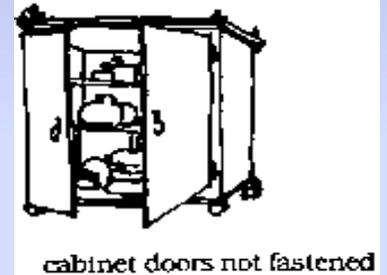
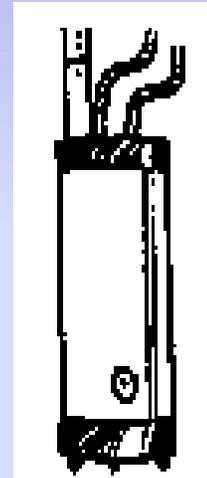


Repair any cracks in chimneys or foundations

Preparedness

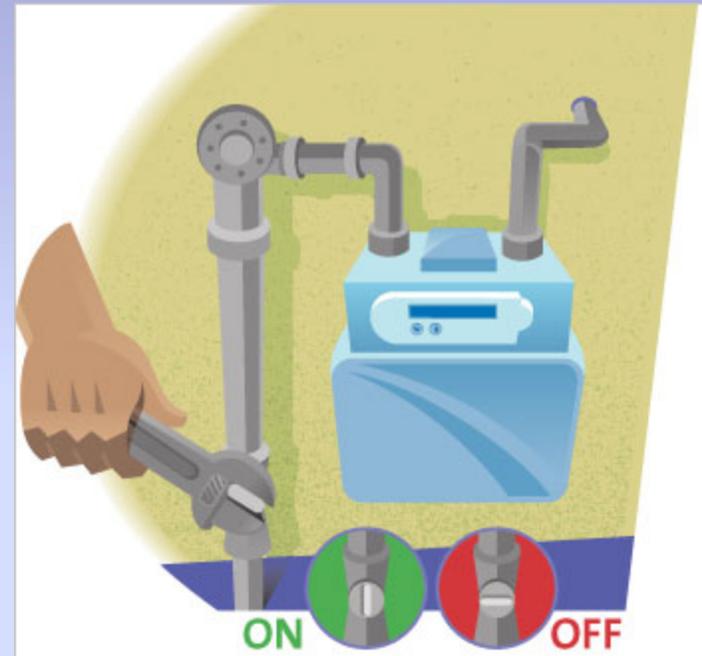
Non-structural Mitigation

- Strap water heater top & bottom;
- Use infant safety latches on cabinets and drawers
- Bolt large or valuable objects to floor or wall
- Lock overhead bins in your cube
- Keep file cabinets closed and locked
- Store heavy, breakable objects low to floor (lower shelves)



Preparedness

- Out of State phone number
- Local meeting place
- Locate utility shut off valves (gas, water, electrical). Store shut off devices
- Inventory and video tape assets and store off-site
- Consider earthquake insurance



Preparedness

- Hang heavy objects such as pictures and mirrors away from beds or chairs
- Store pesticides, flammables, weed killers securely in closed cabinets
- Take first aid / CPR classes or CERT/NERT training
- Note at children's school (letter, pix, toy)



Preparedness

Stockpile Emergency Supplies

- Food and water
- First aid supplies - medications
- Emergency lighting / batteries
- Sanitary and hygiene supplies
- Change of clothing
- Sturdy shoes and gloves
- Extra glasses / reading glasses
- Battery operated radio
- Non-electric can opener
- Pet food
- Cash and proof of residence

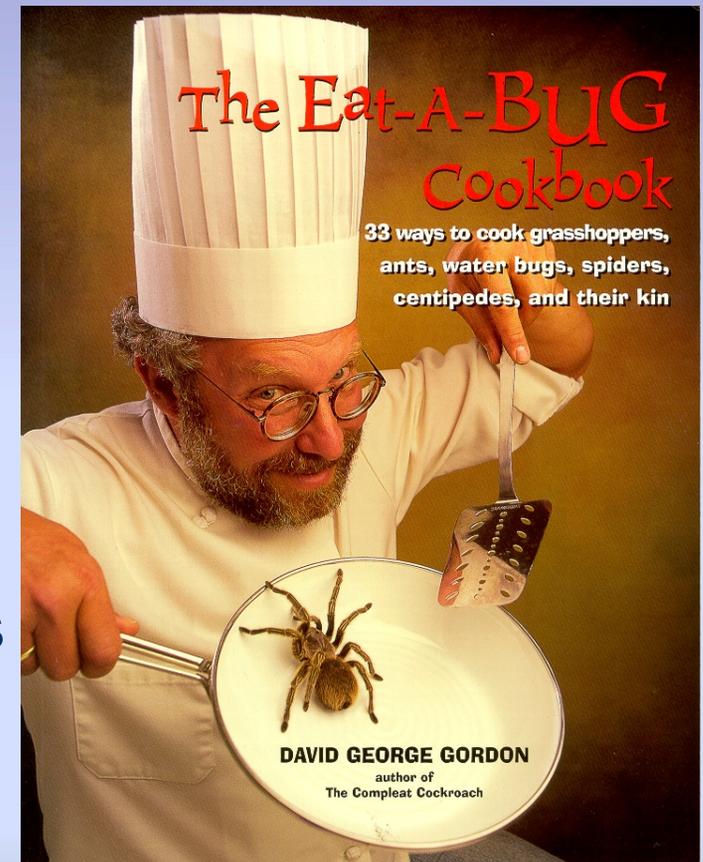
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
Grocery Store <ul style="list-style-type: none"><input type="checkbox"/> 1 gallon of water*<input type="checkbox"/> 1 can meat*<input type="checkbox"/> 1 can fruit*<input type="checkbox"/> 1 can vegetables*<input type="checkbox"/> 2 rolls toilet paper*<input type="checkbox"/> extra toothbrush*<input type="checkbox"/> travel size toothpaste <p>Also: special food for special diets, if needed.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Have a fire drill at home.	First Aid Supplies <ul style="list-style-type: none"><input type="checkbox"/> aspirin and/or acetaminophen<input type="checkbox"/> compresses<input type="checkbox"/> rolls of gauze or bandages<input type="checkbox"/> first aid tape<input type="checkbox"/> adhesive bandages (in assorted sizes) <p>Also: extra hearing aid batteries, if needed.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Check with your child's day care or school to find out about their disaster plans.	Grocery Store <ul style="list-style-type: none"><input type="checkbox"/> 1 gallon of water*<input type="checkbox"/> 1 can ready-to-eat soup (not concentrate)*<input type="checkbox"/> 1 can fruit*<input type="checkbox"/> 1 can vegetables* <p>Also: extra plastic baby bottles, formula and diapers, if needed.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Establish an out-of-state contact to call in case of emergency.	First Aid Supplies <ul style="list-style-type: none"><input type="checkbox"/> scissors<input type="checkbox"/> tweezers<input type="checkbox"/> antiseptic<input type="checkbox"/> thermometer<input type="checkbox"/> liquid hand soap<input type="checkbox"/> disposable hand wipes<input type="checkbox"/> sewing kit <p>Also: extra eyeglasses, if needed.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Place a pair of shoes and a flashlight under your bed so that they are handy during an emergency.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	<u>Week 12</u>
Grocery Store <ul style="list-style-type: none"><input type="checkbox"/> 1 can ready-to-eat soup*<input type="checkbox"/> liquid dish soap<input type="checkbox"/> plain liquid bleach<input type="checkbox"/> 1 box heavy-duty garbage bags <p>Also: saline solution and a contact lens case, if needed.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Send some of your favorite family photos (or copies) to family members out of state for safe-keeping.	Hardware Store <ul style="list-style-type: none"><input type="checkbox"/> waterproof portable plastic container (with lid) for important papers<input type="checkbox"/> portable am/fm radio (with batteries) <p>Also: blankets or sleeping bag for each family member.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Make Photocopies of important papers and store safely.	Grocery Store <ul style="list-style-type: none"><input type="checkbox"/> 1 large can juice*<input type="checkbox"/> large plastic food bags<input type="checkbox"/> 1 box quick energy snacks<input type="checkbox"/> 3 rolls paper towels <p>Also: sunscreen, if needed.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Store a roll of quarters for emergency phone calls.<input type="checkbox"/> Go on a hunt with your family to find a pay phone near home.	First Aid Supplies <ul style="list-style-type: none"><input type="checkbox"/> anti-diarrhea medicine<input type="checkbox"/> rubbing alcohol<input type="checkbox"/> 2 pr. latex gloves<input type="checkbox"/> ipecac syrup and activated charcoal (for accidental poisoning)<input type="checkbox"/> children's vitamins <p>Also: items for denture care, if needed.</p> To Do <ul style="list-style-type: none"><input type="checkbox"/> Take your family on a field trip to gas meter and water meter shutoffs.

Items marked with an asterisk "" should be purchased for each member of the household.*

Preparedness

Food and Water

- Water
 - Expiration dates?
 - Don't use water from pools or hot tubs
 - 1 gallon per person per day
- Food
 - Eat refrigerator food first
 - Store RTE type food that minimizes the need for water
 - Store in safe, accessible location
 - Minimum 3–14 day supply (or more?)





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Safety Issues Discussion

Safety Issues Discussion

- Traffic Concerns
- B 62 the tight corner entering the back parking lot seems to need a mirror
- B 79 excess area a suggestion has been made to add a forklift in operation sign
- Stop sign at the guest house
- New Issues