

Guidance for Owners and Occupants of Damaged Buildings¹

This appendix is intended to provide basic information to owners or tenants of buildings that suffer earthquake damage. Guidance is provided to answer many of the typical questions that arise during the postearthquake recovery period. The issues covered include (1) the safety evaluation process and the meaning of each of the three safety evaluation postings; (2) the process of securing services to perform repairs; and (3) how to obtain aid from disaster assistance organizations.

Building jurisdictions or other agencies may adapt this chapter for use as a handout or other document if the ATC source document is credited.

A.1 Understanding Safety Assessment Procedures and Postings

If a building you own or in which you reside or work is damaged by an earthquake it should be inspected by safety evaluation personnel working for the local government building jurisdiction. You can contact the jurisdiction to request this safety evaluation. The evaluation may not be possible until a few days after the earthquake, depending on the extent of local damage and the number of available qualified inspectors and engineers assigned to your area. If substantial damage is apparent, do not wait for an official evaluation of the building: the prudent choice is to discontinue use and occupancy of the building to prevent potential injuries that may occur due to collapse or other falling hazard conditions that could occur unexpectedly or as a result of earthquake aftershocks. You may want to engage a design or construction professional at this time to inspect the damage, recommend repair work, obtain emergency permits, or begin repair work, as required. This process is discussed below in Section A.2.

When an authorized safety evaluation team from the jurisdiction does arrive it is very important to cooperate with them by providing both information about observed damage and access to the building. The first safety evaluation team to arrive will likely be conducting what is called a Rapid Evaluation. They will spend 15 to 60 minutes inspecting the property, depending on its size, complexity, and extent of damage. Their responsibility is to quickly determine if a building is safe enough to occupy,

and if not, to decide what restrictions to place on its use or entry. The inspection will result in one of three posting placards (discussed below) being placed near the entrances to the building indicating the outcome of the team's safety evaluation. The team will also record the inspection findings and posting placard determination on an evaluation form for the jurisdiction.

Unsafe Posting (Red Placard)

If damage visible from the exterior obviously poses a severe hazard for entry or occupancy, the safety evaluation team may be limited to inspecting only the exterior of the building. In such cases the posting most likely to be used is a red UNSAFE placard. This placard indicates it is unsafe to occupy or enter the building for any reason. Even when a building can be entered for inspection it is still possible that internal damage could pose dangers requiring an Unsafe posting. It is also possible that an otherwise safe building must be posted Unsafe because it is threatened by falling hazards from a nearby building. The legal questions that may arise from such a circumstance are important, but unfortunately they are beyond the scope of this document.

The UNSAFE placard is posted only when there is an immediate risk associated with entry, use, or occupancy. While its meaning may vary somewhat among building jurisdictions, it usually means that the building owner must apply for a permit to enter the building by means acceptable to the jurisdiction.

¹ Reprint of Appendix A of ATC-20-2 *Addendum to the ATC-20 Postearthquake Building Safety Evaluation Procedures*, which is available from the Applied Technology Council, 201 Redwood Shores Parkway, Suite 240, Redwood City, CA 94065 (Website: www.ATCCouncil.org)

These means may include engaging an engineer and contractor (See Section A.2 below) to assess the risks and, as necessary, remove falling hazards, shore unstable elements, provide protective scaffolding, or otherwise mitigate hazards.

It is very important to understand that the “red tag” Unsafe posting does not automatically mean that the property has been condemned or will require demolition. Indeed, rarely is damage so severe or the threat to either an adjacent property or important right-of-way so high that an order to demolish a building is issued. Local officials normally will contact and involve the building owner and the owner’s engineer or contractor in the process of making any demolition decisions and allowing for belongings removal. Some building owners may voluntarily choose to demolish their building if repairing it is clearly uneconomical, but again, this is not the usual consequence for buildings posted Unsafe.

There are several options for building owners for the removal of goods from buildings posted Unsafe, depending on the specific condition of a building and the policies of the jurisdiction.

1. The owner, with or without the assistance of a construction professional, proposes to the jurisdiction a method of how and where the building may be entered without hazard in order to remove belongings. If this method is acceptable to the jurisdiction, it allows the owner or tenants to enter the building in accordance with the method. The jurisdiction may require that a permit be obtained. It may also require that any entry be under the supervision of the jurisdiction or the construction professional, and that hard hats be worn by those entering the building.
2. At the discretion of the jurisdiction, the owner takes out an emergency permit to perform sufficient work on the building to make it safe to enter to remove belongings. The owner will need to present a hazard mitigation and entry plan that is satisfactory to the jurisdiction. The jurisdiction may require that licensed engineers or contractors prepare this plan and supervise its execution. This plan might include shoring of parts of the building, removal of falling hazards, construction of overhead barriers, or other means that permit safe entry to all or part of the building. This plan may or may not be a part of an overall plan to repair the building.
3. The jurisdiction may believe that the building is so precarious that no hazard mitigation measures are possible that would permit even limited entry to remove belongings. This can occur when the building condition creates an undue risk even to workers attempting to mitigate the hazards. The jurisdiction should invite the owner and the owner’s professional construction consultants to propose a mitigation and entry plan. If no hazard and mitigation plan can be proposed that is satisfactory to the jurisdiction, the building would have to be demolished with the belongings still inside. The urgency of this determination will depend on whether the building threatens an adjacent property or important right-of-way.

Jurisdictions have often taken an active role in expediting the above options when the building owner has been unwilling or unable to perform. In the case of tenant demands for access and owner inaction, the jurisdiction may mitigate hazards as necessary to allow for limited belongings access. The jurisdiction may proceed with demolition if the need is pressing and the owner is uncooperative.

Restricted Use Posting (Yellow Placard)

An intermediate posting called Restricted Use is used by the evaluation team to address situations where a clearly unsafe condition does not exist but the observed damage precludes unrestricted occupancy. Unlike the Unsafe posting, the Restricted Use posting does not usually require that the owner obtain a permit to allow entry. For example, if the evaluation reveals damage of a nature that requires that there be no entry to a portion of the building or some restriction on the use or occupancy of the whole building, the yellow RESTRICTED USE placard will normally be used.

Examples of nonstructural damage that could lead to a Restricted Use posting include the loss of use of basic sanitary facilities due to broken water or sewer pipes or damage to a fire sprinkler system required for safe full occupancy. Localized structural damage may place a portion of a building in an unsafe condition while other areas remain usable. Overall damage may be such that entry is appropriate for occupants to remove belongings and for contractors to make repairs, but is not appropriate for normal

occupancy. A description of the limits or conditions of continued use will be written on the RESTRICTED USE placard. If you are present when a Restricted Use posting is made, you should ask the inspectors for a clear explanation of the limits placed on entry or occupancy and this verbal explanation should be consistent with the limits as written on the placard. If you return to your property and find a RESTRICTED USE placard that does not adequately explain the limits of entry or use, you should contact the jurisdiction for more specific information before entering the building.

When there is damage that is not a safety hazard but is detrimental to the quality of health or living conditions for long-term occupancy, the jurisdiction may have instructed the inspectors to place a Restricted Use placard. No occupancy or use restrictions would be stated, but the placard would note that the owner must correct the listed deficiencies under a permit.

In addition to posting the entire building, posting may be necessary at specific locations outside a building. In situations in which a potential falling hazard exists, the immediate area below that part of the building may be marked or otherwise barricaded with yellow tape having a message that reads *Do Not Cross Line, Restricted Area—Keep Out*, or similar cautionary wording. Damaged masonry chimneys, parapets, or veneers above outside spaces are examples of falling hazards requiring such barricading.

Inspected Posting (Green Placard)

Where damage does not pose any significant safety hazard, the proper posting should be a green INSPECTED placard. This posting is intended only to inform occupants that the building may be safely occupied; it does not imply that existing damage should be ignored or that repairs are not necessary.

If the inspection team was not able to enter the building but found no hazards at the exterior, the INSPECTED placard will be marked “Exterior Only.” If the inspection team was also able to enter the building and found no hazards, the INSPECTED placard will be marked “Exterior and Interior.” If you return to your building and find an INSPECTED placard marked “Exterior Only,” you should request a reinspection if you believe there are hazards inside the building.

Posting Changes

It is possible that subsequent aftershocks could create new damage or increase the initial damage, causing the need for an Inspected or Restricted Use posting to be changed to a more restricted level of use. If you have evidence that an aftershock has substantially increased damage to your building, you should contact the building inspection office to schedule a reinspection. It is likely that the building inspection office will consider the reinspection of posted buildings after a major aftershock, even if reinspections are not requested by the owner.

The Rapid Evaluation team may decide that a more extensive inspection is needed. They will post the building to their best judgment, but they will also request what is called a Detailed Evaluation. The jurisdiction may also require that all Unsafe and Restricted Use postings by Rapid Evaluation teams receive a Detailed Evaluation as a second opinion to ensure that the restrictions on your property use are appropriate. The Detailed Evaluation team will have more time and will have specialist members to conduct a more thorough investigation that may result in a posting different from that given by the Rapid Evaluation team. In the meantime, however, the posting by the Rapid Evaluation team must be observed.

A.2 Steps to Take to Ensure Damage Is Properly Repaired

If your building is damaged in an earthquake and appears repairable, you will need to assess the damage, determine what efforts are necessary for reoccupancy, and begin these efforts. You will probably need the services of design and construction professionals and permits from the local building jurisdiction. Your choice of which construction professional to initially contact will depend on your preliminary assessment of the repair and hazard mitigation needs, your knowledge and acquaintance with the local professionals, and their availability.

You may begin the engagement of design and construction professionals at any time, that is, you need not wait until the Rapid and, if done, Detailed Evaluations are completed. The jurisdiction will usually allow the entry and occupancy of a building to be determined by a design professional engaged by the owner, if their written and signed occupancy recommendations appear reasonable and are posted on the building.

Most architects, contractors, and engineers belong to either a regional or state association that can provide names, phone numbers, and perhaps some information on the type of work in which their members specialize. The building inspection office may also provide similar lists but it is very unlikely that they will offer to recommend any specific firm. Recommendations are perhaps best sought from other individuals, business associates, family, friends, or neighbors who have recently used the services of the type of professional you are seeking. In certain cases an engineering geologist may also be needed when a building site is steeply inclined or has certain soil conditions that must be considered in the repair design.

After reviewing the recommendations for and availabilities of architects, contractors, or engineers, you can then begin the process of engaging them. When widespread damage occurs, the resulting demand for construction repairs may cause even legitimate local construction professionals to charge higher prices than would normally be expected. Obtaining several bids for the needed repair work can help secure a more reasonable price. Prior to signing any contract to perform repairs or other services, be sure that it contains a complete description of the scope of work and requires that a building permit be obtained. Contractors often require that a percentage of the full contract price be paid before beginning work, but it is generally neither necessary nor prudent to pay the entire amount in advance. For example, state law in California limits the advance payment that must be given to a contractor prior to beginning work to ten percent of the total contract price.

Permits will be needed from the jurisdiction to begin work, and obtaining them might be done by you or by the construction professionals you have engaged. The local building jurisdiction office will be a very busy and perhaps even a confusing place to obtain permits and information needed to initiate repairs after a major earthquake. The specific rules applying to the reconstruction or repair of your building will undoubtedly be somewhat different than those used in nondisaster situations. Since some of the requirements may be waived (e.g., fees) and others may be specially imposed (e.g., soil or engineering reports) under these circumstances, you should definitely inquire about what rules apply to your specific location and extent of damage. There may be situations that require an older structure to be repaired using current standards for earthquake resistance rather than those used in the original construction. Use of these current methods can substantially reduce the damage caused by future earthquakes, but this will also usually raise the cost of the repair work.

In the aftermath of most disasters where large numbers of buildings are damaged or destroyed, there are likely to be opportunists posing as legitimate contractors willing to assist you in making needed repairs. The best way to avoid these unscrupulous or illegal operators is to ask for proof of both a current state contractor's license and a certificate of worker's compensation insurance. Although this evidence cannot necessarily ensure top quality workmanship, it certainly will avoid other problems that can result from using the services of either uninsured or unlicensed individuals.

If you are attempting to make repairs on your own without the help of contractors, be aware that you will still need a building permit or similar authorization and that you must request the required inspections for that work. Certain minor cosmetic work (e.g., replacing or patching cracked interior wall finish materials) may be exempted, but other repairs (e.g., fixing chimneys, or repairing any damaged structural members) will likely need a permit. While this may seem bothersome, it will help prevent challenges to the adequacy of the work performed when a property is sold or if insurance claims are made.

A.3 Guidelines for Securing Disaster Assistance

The details, limitations, and eligibility requirements for various types of federal, state, or local aid cannot be specifically listed here, because they are subject to change and are often unique to the situation and the disaster. The best source for current information on these subjects will be the locally established disaster application center.

If earthquake-specific coverage is included in an insurance policy covering your property, your first step should be to contact the claims office of the insurance company. You may also be eligible to make a claim for federal or state assistance to cover uninsured losses or deductibles that may apply to your coverage. Whether or not insurance coverage applies to your losses, you should document all the visible damage with photographs and a narrative of what each shows. Also keep a record of the nature, extent, and cost of any emergency repairs made by yourself or others immediately after the earthquake and any other expenses related to the earthquake damage or the loss of use of the building. The importance of such documentation cannot be over-stressed, because the full amount of any insurance settlement or financial assistance that may be available in the form of low interest loans and, occasionally, grants, will require significant proof regarding damages, repairs, and expenses.

Damage to your home may be severe enough to require your family to relocate to temporary or even long-term alternative housing. Following a disaster, the local chapter of the American Red Cross is responsible for providing emergency shelters at locations such as schools. Information on the exact locations can be obtained from the Red Cross or local government authorities. Other local nonprofit and community service organizations may also be providing aid including food and clothing, and state and county health departments may offer personal counseling.

If a presidential declaration of a disaster is made, the Federal Emergency Management Agency (FEMA), or other cognizant federal agency, in conjunction with local government, will establish a local Disaster Application Center (DAC). These centers will normally begin functioning several days to a week after a disaster, and their locations will be announced by newspapers and other media. Representatives from local, state and federal agencies with disaster relief responsibility will be assigned to these centers.

FEMA, or other cognizant federal agency, will address the needs of owners or tenants facing long-term displacement from their principal housing. This assistance can take several forms but often is provided by vouchers that cover a portion of the costs to obtain alternative existing housing. Business owners will be able to apply for loans from the federal Small Business Administration (SBA) at the Disaster Application Center. There is also a program for homeowners. These loans are normally made at below-market interest rates and can be applied to repairing or replacing a building; however, loan eligibility is based on the ability of the borrower to repay. To verify reported damages and assess the amount of financial assistance you may be eligible to receive, representatives from the jurisdiction processing your assistance claim will normally inspect your building.