



U. S. Small Business Administration

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Subject: Nisqually Earthquake Business Impact Scenarios

The U. S. Small Business Administration (SBA) is the federal government's primary source of funds for long-term private sector disaster recovery. For disaster damage to private property owned by homeowners, renters, businesses of all sizes, and private, non-profit organizations that is not fully covered by insurance, the basic form of federal assistance is a low interest disaster loan from SBA.

As of June 20, 2001, SBA has approved \$60.1 million in low interest disaster loans to 4,399 homeowners, renters, and businesses that sustained damage as a result of the Nisqually earthquake. This accounts for 428 disaster loans to businesses totaling \$19.9 million for repairs and 99 loans to businesses totaling \$1.8 million for economic injury assistance. These totals will continue to increase as SBA receives and processes additional applications.

So far, SBA has approved loans totaling \$24.1 million in Seattle, \$8.6 million in Olympia, \$4.3 million in Tacoma, \$29.9 million in King County, \$10.6 million in Thurston County, and \$8.7 million in Pierce County. These statistics are also as of June 20, 2001 and will increase as additional loan requests are received.

From the taxpayers' standpoint, providing low interest disaster loans with favorable terms to make them affordable is the least expensive way of helping disaster victims. SBA disaster loans reduce federal disaster costs when compared to other forms of assistance, such as grants. The disaster recovery funded by SBA disaster loans also saves jobs and stabilizes the tax base in communities that have been hit by disaster, avoiding more costly public outlays paid by taxpayers. To date, SBA disaster loans have protected more than 3,100 jobs for businesses damaged by the Nisqually earthquake.

Examples of the Nisqually Earthquake's Impact on Businesses

As of June 20, 2001, SBA has verified \$126.0 million in damages to homeowners, renters, and businesses from the Nisqually earthquake. Over \$51.2 million of these damages were to businesses. The average loss per business is estimated at \$52,400. Below are some examples of businesses that have been impacted by the Nisqually earthquake and how these businesses were affected.

Scenario #1

A food product manufacturer/wholesaler in Seattle had two leased facilities that sustained significant damage from the Nisqually earthquake. The primary structure was approximately 12,000 s.f; both structures were older commercial buildings constructed of unreinforced masonry with concrete load-bearing walls.

They have been in business for approximately nine years and have 30 employees. Their products are distributed internationally. Recently, they upgraded their production facility with modern, state-of-the-art equipment, production lines, and conveyance systems.

Both locations were red-tagged after the earthquake, and one of the facilities was condemned. They are unable to access the condemned building as well as some of the business' financial records. As a result, the business will be forced to relocate to a new facility. They plan to consolidate all of their operations at the new location.

Fortunately, the earthquake caused only minimal damage to their machinery and equipment. However, because the building that housed the production equipment is now condemned, they must relocate all of their equipment to the new location. SBA estimates that it will cost approximately \$227,300 to disconnect, cleanup, disassemble, reassemble, and reinstall the equipment at a new location. This amount does not include transportation costs the business will incur to relocate the equipment to the new location. In addition, SBA verified \$156,000 in damages to leasehold improvements, \$21,700 in damages to inventory and packaging materials, and \$3,300 in damages to furniture and fixtures, for a total loss of \$408,300.

In the interim, the business has a contingency plan to lease plant space from a competitor, if necessary, to achieve their short-term production goals. They expect to be 50% operational in approximately one month and 100% operational within three to four months from the date of the earthquake.

Scenario #2

A Seattle restaurant sustained significant damage when the Nisqually earthquake dislodged a parapet and wall section of a much larger brick building immediately adjacent to them. Many tons of masonry fell from the adjacent building and landed on the restaurant's roof, destroying their building and all of the restaurant's built-in machinery, equipment, furniture, and fixtures. The building is red-tagged. The 2,200 s.f. restaurant was located in a leased building and the tenant did not have earthquake insurance. The tenant does not know if the landlord has earthquake insurance to cover the structural damages.

The business has been in operation since 1994 and has four employees. The business was located in a prime location for the patrons that they serve. They were operating with a 10-year lease that expires in 2004.

SBA verified the restaurant owner's damages to be \$28,200 for leasehold improvements, \$63,100 for machinery and equipment, \$21,000 for furniture and fixtures, and \$3,000 for inventory, for a total loss of \$115,300.

Scenario #3

In Auburn, a building leased for commercial and residential use sustained significant structural damage by the Nisqually earthquake. It sustained extensive heavy plaster failure on the third floor at the rear and side of the building. The exterior walls separated from the roof and third floor diaphragms. The building sustained significant cosmetic damage as well. There are numerous cracks in the plaster along the wall to ceiling intersections and wall to wall connections. The building is now condemned and must be demolished. The owner did not carry earthquake insurance.

This mixed-use building had retail/office space on the first and second floors, and the third floor was used for residential apartments. The building is approximately 100 years old and is constructed of unreinforced brick with timber-framed floors and roof. The 27 low income/elderly tenants who lived there have been forced to find another place to live. SBA estimated the earthquake damages to be \$120,500.

Scenario #4

A mixed-use commercial/residential building in Olympia incurred significant damage from the Nisqually earthquake. The building was built in 1891 and is on the historic register. It was constructed of solid brick walls and concrete columns. The first floor was used for retail and the second floor was comprised of apartments.

The earthquake caused the exterior brick walls to break and shift. The concrete load-bearing columns, stucco, and drywall were severely cracked. The first floor of the building has been red-tagged. SBA estimates the cost of repairs will be \$78,300. The owner did not have earthquake insurance for these losses.

Scenario #5

A commercial fabric manufacturer in Seattle, in business since 1925, has 19 employees. The business produces fabrics on-site and sells its products to wholesalers and other manufacturers. The owner operates two affiliated businesses from this location, generating an estimated monthly income of \$65,200 per month. The Nisqually earthquake damaged the building that houses the fabric production equipment. The business did not carry earthquake insurance.

The business is located in a one-story building that is approximately 6,000 s.f. with 10-ft. high masonry/concrete load bearing walls. It has a slab foundation, a tar/gravel roof, and a block/concrete exterior.

The building sustained significant damage to the concrete slab floors and concrete block walls. Interior floor coverings, walls, doors, trim and windows also require repair. Fortunately, there was no

damage to inventory, machinery, equipment, furniture, or fixtures. SBA estimates the pre-disaster fair market value of the building to be \$1,000,000 and the cost to repair the building at \$143,400.

Scenario #6

A commercial and residential building in Aberdeen was leased to three businesses and has six apartments. The building is constructed of masonry/concrete load-bearing walls, a slab foundation and roll roof. It has two stories and is approximately 12,000 s.f.

The Nisqually earthquake caused major damage to this building. The walls and ceilings show extensive cracking and the north 30 ft. of the building has settled approximately six inches. The west wall is also substantially damaged. The building has been red-tagged by the city.

SBA estimates the building damages to be \$134,700, approximately 84% of the pre-disaster fair market value of the property. Lost rents will accumulate at approximately \$1,250 per month. The owner did not carry earthquake insurance.

Scenario #7

The owner of two commercial properties in the Seattle metro area experienced substantial damage to one of his properties. The damaged building has two stories and is constructed of a fire-resistant structural steel frame, slab foundation, tar/gravel roof, concrete/block exterior walls, and large concrete/masonry arches that surround windows around the perimeter of the building. The building was leased as office space for approximately \$69,750 per month and contains approximately 57,950 s.f.

The building experienced moderate to severe damage to the exterior concrete block walls and large glass windows in the arches. The northwest portion of the structure sustained the most amount of damage as a result of heavy cracking and spalling, but all exterior walls show cracks in the concrete block. Some roof damage was also noted. The building is unsafe to occupy due to an inadequate lateral resisting system and danger of unstable masonry. There is also significant interior damage to the floor coverings, walls, ceilings, and doors. The mechanical systems require repair, as well as the landscaping and parking area. SBA estimates the pre-disaster fair market value of the building to be \$3.5 million and the total cost of earthquake repairs to be \$449,800. These losses are not insured.

Scenario #8

A family-owned retail furniture business in Seattle experienced earthquake damage to all four of their commercial buildings located in a historic district. The business started over 70 years ago and now employs 50 people.

Buildings #1 and #2 are constructed of masonry/concrete load-bearing walls with a wood/steel roof and floors. Building #1 sustained moderate damages with cracked walls throughout the building, several broken windows, and water damage resulting from roof damage. Building #2 sustained moderate to extensive damage to interior walls, floors, ceilings, doors, windows, exterior walls, foundation, roof, and mechanical systems. There was extensive damage to the exterior wall adjoining building #3.

Building #3 is a two-story, unreinforced brick structure that is approximately 110 years old. The earthquake caused bricks from an adjoining building to fall on the roof, causing moderate interior damages. The building's exterior appears to have sustained moderate damage also. However, the full extent of damages cannot be determined until a structural engineer's report is completed.

Building #4 is a three-story, unreinforced brick structure that is also over 100 years old. It sustained minor to moderate damage.

SBA estimates the business' earthquake damages to be \$287,600 for real estate, \$390,300 for inventory losses, and \$2,000 for furniture and fixtures, for a total loss of \$679,900. Fortunately, the business had earthquake insurance that should cover approximately 74% of the damages identified at this time, leaving an uncompensated loss of about \$176,800.

Scenario #9

The owner of a four-story, 25-unit apartment building in Seattle dropped his earthquake insurance a couple of years ago. The building is constructed of masonry/concrete load-bearing walls and is approximately 20,700 s.f.

The intense shaking from the Nisqually earthquake caused the interior walls and ceilings to crack or collapse. The roof was also damaged and the brick veneer siding separated from the exterior walls. As a result of these damages, 5 units are uninhabitable and the owner is losing rental income of approximately \$4,600 per month. SBA estimated the real estate damages to be \$76,700.

Scenario #10

A historic restaurant/bar in Seattle that employs a staff of eight was located in a leased three-story building. The building was constructed of unreinforced brick over 100 years ago. The Nisqually earthquake caused damage to the exterior brick wall at the rear of the building, roof damage at the rear wall separation, and ceiling damage on the first and third floors. The landlord is responsible for the building repairs.

SBA estimated the tenant's losses to be approximately \$25,600 for damages to leasehold improvements, debris removal, and inventory. The tenant did not have earthquake insurance and does not know if the landlord carried earthquake insurance for the building.

Lessons Learned

From these examples, there are several lessons that we would like to share with business owners.

- ◆ Buildings constructed of unreinforced masonry will often sustain a significant amount of damage during an earthquake.
- ◆ When upgrading your facility or machinery and equipment, consider mitigation efforts that you can take to protect your investment. Consider the long-term benefits of safety measures versus achieving a trendy look for your building.
- ◆ Have a contingency plan in place that will allow you to continue operations, even in a limited capacity, until you can make repairs.

- ◆ Protect important data and business records by storing copies of this information off-site. Disasters can destroy valuable information and your business may not be accessible after a disaster.
- ◆ Be aware of potential hazards that surround your business, such as walls of adjacent buildings, that could cause damage or threaten the safety of your employees and customers.
- ◆ Owners of commercial and residential rental property must consider the potential impact of lost rents or the loss of a valuable tenant as a result of disaster damages. If landlords and tenants work together to prepare for a disaster, losses can be significantly minimized for both parties.
- ◆ Business owners must consider the value of maintaining adequate insurance coverage on their property, including the cost vs. benefit of earthquake insurance.
- ◆ If you lease your business facility, carefully review your lease to ensure it addresses who is responsible for damages to the building, leasehold improvements, mechanical systems, parking areas, etc. Also, determine if your landlord carries earthquake insurance.