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Seismic Safety Program: Frequently Asked Questions

What happens if there is an earthquake tomorrow?
Earthquake risk is inescapable in California. In fact, more than 70 percent of the state's population resides within 30 miles of a fault where high ground shaking could occur in the next 50 years, according to the California Department of Conservation. As a result, all individuals and organizations should have their own individual response plans in place.

UC takes a two-part approach to improve the readiness and safety of its community. First, the university works to reduce structural risk and potential seismic hazards of its buildings through a longstanding, proactive program of inspections, building updates, and retrofits that take structures beyond what is required by the California Building Code.

Secondly, UC has carefully established emergency response procedures. Community members should know and follow the plans for their particular location. Additionally, everyone should take steps to be personally prepared. For more information on the UC response plans, community members can review:

- Detailed plans and preparedness recommendations from the UC Office of the President, which can be found here as well as on the UCOP Safe-T app.

- Information on personal preparedness steps from a range of resources.

What is the university doing to improve the seismic safety of its buildings?
The university has a robust program to improve the safety of its community in the event of an earthquake. The university has taken actions that include:

- Implementing its first seismic safety policy more than 40 years ago.
- Ensuring that UC buildings are compliant with the requirements of the California Building Code applicable at the time of construction or seismic renovation to provide for improved community safety and protect against earthquake damage.
- Upgrading more than 24 million square feet of facilities since 1979 through retrofits or wholesale building replacement.
- Consistently and proactively updating the university's approach to seismic safety by incorporating learnings and advances in geotechnical engineering, structural engineering, and seismology.
- Using a seismic performance rating system (i.e., Roman numeral I through VII scale) developed in collaboration with the California Department of General Services and California State University that correlates anticipated seismic performance of buildings with seismic design requirements specified in the California Building Code.
- Proactively launching a comprehensive review of UC's portfolio of buildings to update the existing seismic performance ratings using newer, more rigorous standards.
- Establishing a Seismic Advisory Board that includes independent structural and geotechnical engineers with seismic expertise to help advise UC's efforts.

After the updated ratings on a substantial number of the buildings are thoroughly evaluated and confirmed by engineers, each campus will start prioritizing and planning its retrofitting or replacement work to meet location-specific needs.

What is the UC Seismic Advisory Board?
The Seismic Advisory Board (SAB) is a group of independent structural and geotechnical engineers with seismic expertise appointed by the UC Office of the President to provide technical seismic advice to the university. The SAB provides guidance on seismic design, performance ratings and rehabilitation associated with UC's facilities. The SAB's responsibilities include assessing seismic risk, advising on seismic priorities, and providing policy revision recommendations.

What are the results of the updated seismic performance ratings?
Updated ratings have not yet been finalized for all buildings. Initial inspections of a first group of buildings were completed in 2019. All initial inspections and ratings updates are planned to be complete in 2020.
In some cases, ratings recommendations have been finalized. Other buildings must undergo further structural engineering analysis using more detailed testing methods to confirm their ratings. Until then, the university cannot definitively assign updated ratings on those buildings that require additional levels of inspection.

When will work to update or retrofit buildings begin?
Projects to address seismic safety are in process and are incorporated into UC's Capital Financial Plan (CFP). Additional retrofit or replacement projects to improve seismic safety identified in our current review of buildings would begin as early as 2020 and would be conducted over the next decade.

How long will seismic updating work take?
Until updated seismic performance rating information is available and action plans – including architectural and engineering plans, project approvals, and construction contracts – are in place, the exact time for completed remediations cannot be determined. In general, given the number of buildings in UC's portfolio, the evolving knowledge in this area and the extensive systemwide effort to further seismic safety, the retrofits, renovations and replacement of buildings – if needed – are expected to be conducted over the next decade. Some work may occur sooner. However, given the constant advances in seismic knowledge and changes to building codes, it will be an ongoing effort. In addition to the complexity of assessing and updating such a large number of buildings across the UC system, the availability of funding will also play a role in the timeline of seismic safety improvements.

How will UC fund implementation of its seismic policy?
The full cost to make the needed retrofits of buildings across UC campuses will be assessed as the campuses receive more information from the seismic evaluations. As of the end of 2019, approximately 56 million square feet, or about 40 percent, of the total systemwide building area have been seismically evaluated.

The university's Capital Financial Plan (CFP) provides an estimated plan of seismic improvement projects. Based on the partial information available, campuses have estimated construction costs of $6.7 billion that may be required to address seismic improvement needs identified to date. Those needs may change as work continues on seismic evaluations. UC is currently using available state funds for eligible buildings as well as university resources for projects identified as high priority.

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The university is exploring additional sources of funding to help with building retrofits or replacements. These other sources include the California State Budget for eligible buildings, and campus or auxiliary funds.

After all building assessments and ratings updates are completed in 2020, campuses will incorporate seismic projects in the university's Capital Programs process.