University of California

Seismic Safety Policy Overview & Compliance Webinars
August & September 2017

Policy Revised: May 19, 2017
Presenters

• Vini Bhargava  
  Associate Director, Design & Construction  
  Office of the President  
  vini.bhargava@ucop.edu

• Norm Hamill  
  Interim Managing Counsel, Litigation  
  Office of General Counsel  
  norman.hamill@ucop.edu
Agenda

• UC’s overall seismic oversight program and the 3 elements of the methodology as adopted by the Seismic Mitigation Task Force
  • Element 1- Seismic Risk Model
  • Element 2- Seismic Advisory Board
  • Element 3- Seismic Safety Policy

• Overview of the Policy

• Factors for Prioritization for retrofit

• Details of applicability of seismic ratings to different transactions

• Provisional Use for certain leased spaces and Waivers

Link to the May 2017 Seismic Safety Policy: http://policy.ucop.edu/doc/3100156/
Methodology to manage UC’s Seismic Program

- One purpose – Enabling operations in furtherance of UC’s mission while managing life safety
- Three key elements

<table>
<thead>
<tr>
<th>Element 1</th>
<th>Element 2</th>
<th>Element 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seismic Risk Model (SRM)</strong></td>
<td><strong>Seismic Advisory Board (SAB)</strong></td>
<td><strong>Seismic Safety Policy (SSP)</strong></td>
</tr>
<tr>
<td>The SRM, focusing on life safety, analyzes buildings rated V (Poor) or VI (Very Poor).</td>
<td>SAB advises the UC system, starting from the SRM results, on reducing its seismic risk.</td>
<td>Lays out factors and rules for managing seismic risk in existing buildings and for adding new buildings to UC’s inventory.</td>
</tr>
</tbody>
</table>
The Seismic Risk Model (SRM)*

**Component 1**
- **Hazard**
  - Strength of ground motion
  - Soil condition
  - Distance from the fault line

**Component 2**
- **Damage**
  - Vulnerability of the building
    - Seismic rating of the building
    - Structural/construction type

**Component 3**
- **Consequence**
  - Life Safety Index
    - Relative to newly designed building

---

What we collect for the SRM

What the SRM does

Ordered list by Life Safety Index

---

* SRM is a HAZUS based Model
  - FEMA developed HAZUS (HAZard USa) to manage hazards including floods, hurricanes, and earthquakes
  - HAZUS has capabilities to identify other consequences or loss such as down time and capital loss. SRM focused on life safety
Seismic Advisory Board (SAB)

- Provides technical advise to UC
- Reviews and advises on the output of the Seismic Risk Model
- Reviews and comments on campus prioritization plans

Structural Engineers Assigned to Campuses

I. Ron Hamburger, Simpson Gumpertz & Heger (UCR & UCI)
II. Joe Maffei, Maffei Structural Engineering (UCD & UCSC)
III. Holly Razzano, Degenkolb (UCSF & UCM)
IV. Tom Sabol, Englekirk (UCSB & UCSD)
V. Mason Walters, Forell/Elsesser Engineering (UCB) – Chair of the SAB for year 1
VI. Nabih Youssef, Nabih Youssef Associates (UCLA)

SRM Expert
Craig Comartin, CDComartin, Inc.

Geotechnical Expert
Jonathan Bray, JD Bray Consultants & UCB Faculty

OP Representative
Vini Bhargava

OGC Representative
Norm Hamill
Policy Overview

1. Managing UC Owned Buildings
   a. SRM and SAB oversight vs. Interim Use Plans
   b. No occupancy beyond 2030 unless modified
   c. Guidance on prioritizing retrofit based on several factors
   d. As funds become available, include projects in the Capital Financial Plan
   e. Incremental upgrades to continuously reduce seismic risk
   f. Code compliance (with the California Building Code) for all retrofits

2. Entering into Leases
   a. UC as lessee
   b. Ground leases

3. Acquiring facilities/buildings/structures

4. Acquiring Businesses

5. Entering into licenses

Link to the May 2017 Seismic Safety Policy: http://policy.ucop.edu/doc/3100156/
## Applicability of Seismic Ratings for Different Transactions

<table>
<thead>
<tr>
<th>II (Good)</th>
<th>IV (Fair)</th>
<th>V (Poor)</th>
<th>VI (Very Poor)</th>
<th>VII (Red Tag)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing UC Buildings</td>
<td>Undiminished continued use</td>
<td>• Provide building data to OP for the model, work with advisory board for prioritization following guidelines in policy • No occupancy beyond 2030</td>
<td>None in current UC building portfolio</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisitions</td>
<td>Yes</td>
<td>Yes</td>
<td>Up to 24 months</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Leases</td>
<td>Yes</td>
<td>Yes</td>
<td>Up to 24 months</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Business Acquisitions***</td>
<td>Yes</td>
<td>Yes</td>
<td>Up to 24 months</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Occupancy of a leased or acquired V is allowed only for surge space while an existing UC owned V or VI is being retrofitted

**Appropriate for a strategic land acquisition with a seismically deficient structure/building on it; structure/building to be demolished within 3 months

***A lease is assumed by the University when it acquires a business (e.g. a clinical practice)

Some Factors for Prioritization after the SRM results

- Building collapse risk
- Logistics (staging & displaced occupants)
- Cost-benefit (replacement)
- Post-upgrade functionality (still fit?)
- Incremental seismic performance upgrades
- Mission criticality
- Building population and use (reduce use)
- Financial resources
- Business resumption after an event
- Special building features (historical)
- Adjacencies (risk to adjacent buildings)
- Ownership (UC’s ability)
Provisional Use and Waivers

PROVISIONAL USE FOR CERTAIN LEASED FACILITIES

- Less than 3K sqft and no children
- One-story, wood-frame
- Trailer with no gas connection
- DSA or OSHPD
Questions?

• Vini Bhargava  
  Associate Director, Design & Construction  
  Office of the President  
  vini.bhargava@ucop.edu

• Norm Hamill  
  Interim Managing Counsel, Litigation  
  Office of General Counsel  
  norman.hamill@ucop.edu