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**CHANCELLORS
DIRECTOR--LAWRENCE BERKELEY NATIONAL LABORATORY**

Seismic Safety Policy for Leased and Purchased Buildings

The enclosed *Seismic Safety Policy for Leased and Purchased Buildings* is intended to supplement the existing *University Seismic Safety Policy (1995 Policy)* and to formalize the longstanding policy and practice of evaluating all newly-leased buildings (including lease renewals) and all newly-acquired buildings (purchased or acquired by virtue of title transfer, e.g., exchange or gift). The policy addresses the types of structures that require an Independent Review, and those for which a Certificate of Applicable Code is acceptable.

Historically, the University has required that newly-acquired buildings be rated as GOOD. This requirement was based on a policy of mitigating the economic risk of repair associated with a seismic event, while providing a cushion against escalating codes and technologies that may downgrade the rating in the future and thus create a need to retrofit. The *1995 Policy*'s focus has always been on life-safety, which for campus buildings and leased facilities comports with a minimum rating of FAIR. The enclosed supplement to the *1995 Policy* addresses both needs: (i) it provides for a new alternate method for determining whether a building achieves a GOOD rating, and (ii) it allows UC to acquire buildings with a rating of FAIR as long as the approval documentation contains full disclosure of the economic risks.

The *Seismic Safety Policy for Leased and Purchased Buildings* is effective immediately and will be appended to the *University Seismic Safety Policy*. It is also available within the online University of California Facilities Manual and on the website of the Real Estate Services Group: <http://www.ucop.edu/facil/resg/seismic-safety/welcome.html>.

Should you have any questions about this policy, including its applicability in particular instances, please contact Ellie Ross at (510) 987-0981 (ellie.ross@ucop.edu) or Ingrid Schmidt at (510) 987-9006 (ingrid.schmidt@ucop.edu).

Robert C. Dynes

Encl: Seismic Safety Policy for Leased and Purchased Buildings
Decision Tree for the *Seismic Safety Policy for Leased and Purchased Buildings*
Certificate of Applicable Code Form

cc: Members, President's Cabinet
Principal Officers of The Regents
Executive Vice President Lapp
Assistant Vice President Bocchicchio
Vice Chancellors – Administration
Universitywide Policy Coordinator Capell

SEISMIC SAFETY POLICY FOR LEASED AND PURCHASED BUILDINGS (2007 Policy)¹

It is University policy – to the maximum extent feasible by present earthquake engineering practice – to lease² and purchase³ buildings that provide an acceptable level of earthquake safety for students, employees, and the public who occupy buildings used for University-related purposes. The 2007 *Policy* is a supplement to the *University Policy on Seismic Safety (1995 Policy)* and supersedes the policies issued by Facilities Administration in October 1996 and April 2000. To that end, it establishes minimum requirements to be applied when a campus is considering a lease or purchase:

- For lease and subsequent University occupancy, a building shall be rated “Fair” or better according to criteria set out in the *University Policy On Seismic Safety (1995 Policy)*.⁴
- For purchase and subsequent University occupancy, a building shall be rated “Good,”⁵ or alternatively, the campus may purchase and occupy a building that is rated “Fair” provided the Regents’ action item for approval of the transaction includes: 1) an analysis of the economic risk to the University based on a Probable Maximum Loss (PML) Report,⁶ including an estimate of the total project cost to repair the building after the seismic event in the PML Report, and 2) an estimate of the total project cost to retrofit the building to achieve a “Good” rating.

One of two evaluation methods may be used to certify a building’s compliance with this policy:

(A) Independent Review, or (B) Certificate of Applicable Code. The following building types are deemed to be adequate under the *2007 Policy* and therefore do not require such evaluation methods: 1) one- and two-story wood-frame single-family residences or 2) relocatable structures (e.g., trailers or other portable buildings), but only if the structure does not have a natural gas connection.

(A) INDEPENDENT REVIEW

A structural engineer, licensed by the State of California⁷ (not a University employee), shall prepare an ***Independent Review*** of the seismic structural design of the entire building under the following conditions:

1. If the building is to be purchased, or
2. If the building is to be leased, and
 - a. the use is an acute care hospital, an essential services building, or K-12 school, or
 - b. the leased premises are contained in a building NOT constructed or fully retrofitted pursuant to the 1976 or later edition of the Uniform Building Code (UBC), or
 - c. the building contains any of the following construction conditions:
 - i. unreinforced masonry walls;
 - ii. welded steel moment frames (WSMF) constituting the primary structural system of the building which WSMFs (a) have been subjected to a strong ground motion (approximately 0.20g or greater) since construction,⁸ or (b) may have low or limited redundancy, or discontinuity, or offsets of the moment frames;
 - iii. flexible diaphragm-rigid walls;
 - iv. apparent additions, or modifications, or repairs to the seismic resisting systems made without a permit;
 - v. hillside construction on a slope steeper than 1-vertical to 3-horizontal;
 - vi. multi-story wood-frame structures with construction over first-story parking (soft-story structures).

3. The Independent Review shall use the most current structural engineering evaluation techniques and data appropriate for the structure type, use, age, and local geotechnical conditions to determine the expected seismic performance of the building and the building's rating within the *University Policy On Seismic Safety (1995 Policy)*. At a minimum, the review shall include:
 - a. a review of drawings and calculations (when available);
 - b. a qualitative evaluation of the structural system and identifying weak links in the system;
 - c. a qualitative comparison of the building's lateral systems for conformance to the current applicable seismic design requirements;
 - d. identification of potential falling hazards that pose a significant life-safety hazard to occupants;
 - e. a discussion of the basis for the building's rating using the performance ratings of the *1995 Policy*.

(B) CERTIFICATE OF APPLICABLE CODE

An architect, civil or structural engineer, licensed by the State of California⁷ (including a University employee), shall complete the University's ***Certificate of Applicable Code*** form prior to execution of the lease if:

1. a leased space is contained in a building whose design and construction was approved by the local jurisdiction pursuant to the 1997 or later edition of the UBC, or
2. a leased space is contained in a building whose design construction was approved by the local jurisdiction pursuant to the 1976 or later edition of the UBC and does NOT contain any of the construction conditions listed in (A) 2. c. i.-vi. above, or
3. a leased space is contained in a building that has undergone a complete seismic structural retrofit approved pursuant to the 1976 or later edition of the UBC and does NOT contain any of the construction conditions listed in (A) 2. c. i.-vi. above.

If the conditions described in this section (B) cannot be met, Landlord or University shall contract for an Independent Review as described in (A) above. The University may, at its discretion, have the Landlord's report reviewed by its technical advisors.

¹ Attachments: Decision Tree for the *2007 Policy* and Certificate of Applicable Code form.

² The *2007 Policy* also applies to licenses where the licensing of a facility results in that facility's use as a primary work location for a University employee.

³ The *2007 Policy* also applies to acquisition by purchase or other title transfer (e.g., exchange, gift).

⁴ The *University Policy on Seismic Safety (1995 Policy)* evaluation criteria rate buildings as Very Poor, Poor, Fair, and Good depending on the expected seismic performance of the building.

⁵ In addition to the definitions contained within the *1995 Policy*, a building shall be deemed to have a "Good" rating if an Independent Review determines that it meets the requirements of the most current edition of the *California Building Code*, Chapter 16, Division VI-R using the reduced seismic hazard (Sec. 1643A.8.1.1.) and the conclusions are favorably reviewed consistent with peer review requirements of the Chapter 16.

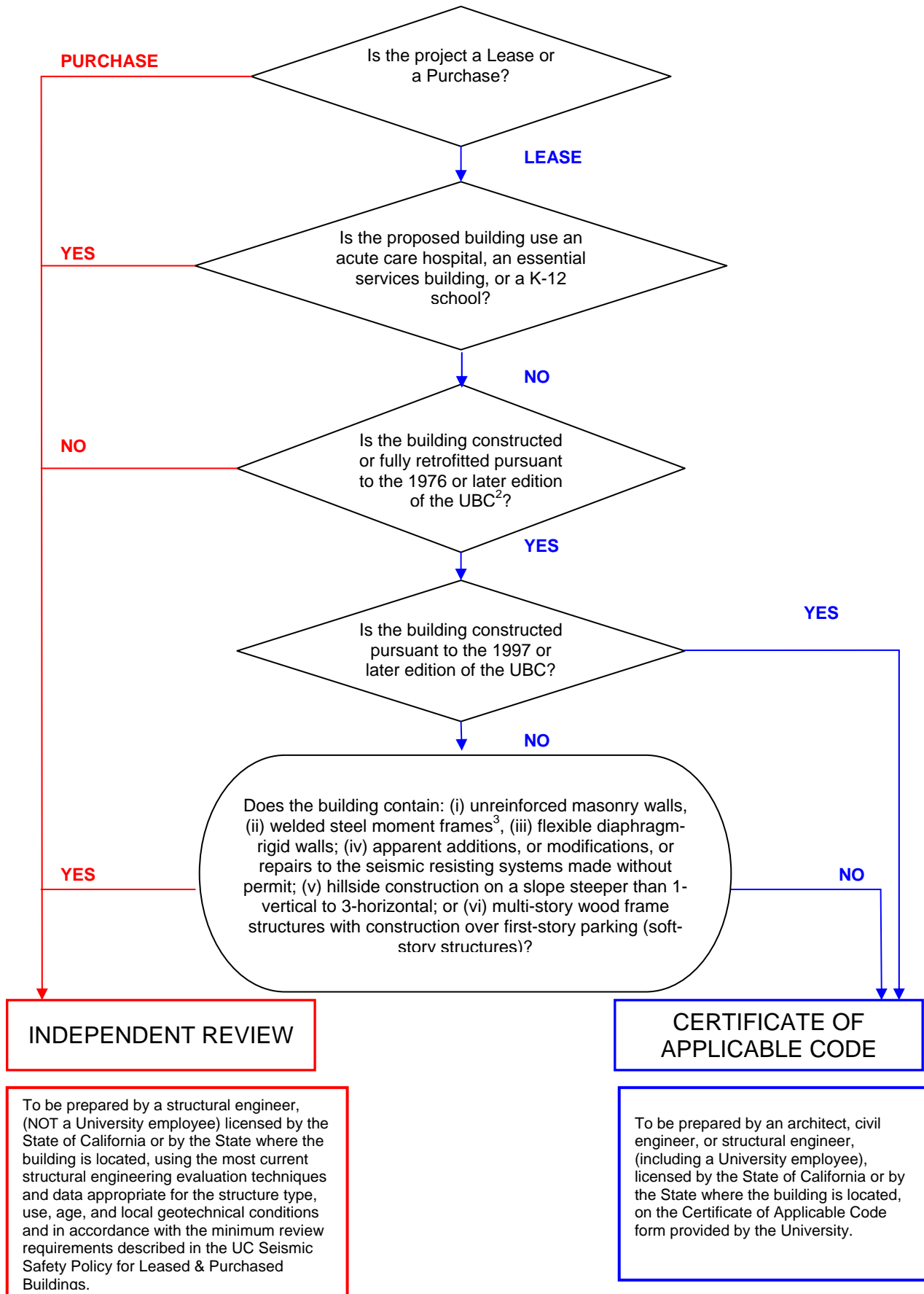
⁶ PML reports shall be completed following the requirements of ASTM E 2026 as Level 1 investigation for Site Stability, Building Stability, and Building Damageability where PML is defined as the scenario expected loss (SEL) in the design basis earthquake ground motion (DBE).

⁷ Or by the State where the building is located.

⁸ Currently applies to WSMF buildings built before 1989 in the Santa Cruz/San Francisco Bay Area (Loma Prieta) and built before 1994 in the Los Angeles area (Northridge).

DECISION TREE

Seismic Safety Policy for Leased and Purchased Buildings¹ (2007 Policy)



¹ See 2007 Policy for explanations and exceptions.

² Uniform Building Code.

³ See 2007 Policy for clarification [(A) 2.c.(ii)].

**UNIVERSITY OF CALIFORNIA
CERTIFICATE OF APPLICABLE CODE**

Building Address: _____ (“Building”)

I, _____ an architect, civil engineer, or structural engineer, licensed by the State of California, have completed a walk-through of the Building on _____ and reviewed the available documentation of the Building described above. I hereby certify¹ that the design and construction of the entire Building was either:

approved by the local jurisdiction pursuant to the 1997 or later edition of the Uniform Building Code (UBC);

-- OR --

approved by the local jurisdiction pursuant to the 1976 or later edition of the UBC, including all additions, modifications or repairs to the seismic resisting systems. This building was originally constructed in _____ [year]. A complete seismic structural retrofit approved pursuant to the 1976 or later edition of the UBC took place in _____ [years(s), if applicable].

I further certify that the Building is not and does not contain any of the following:

- (i) unreinforced masonry walls;
- (ii) welded steel moment frames (WSMF) constituting the primary structural system of the building which WSMFs (a) have been subjected to a previous strong ground motion (approximately 0.20g or greater) since construction², or (b) may have low or limited redundancy, or discontinuity, or offsets of the moment frames;
- (iii) flexible diaphragm-rigid walls;
- (iv) apparent additions, or modifications, or repairs to the seismic resisting systems done without a permit;
- (v) hillside construction on a slope steeper than 1-vertical to 3-horizontal; or,
- (vi) multi-story wood frame structure with construction over first-story parking (soft-story structures).

I have attached a copy of the certificate of occupancy.

Printed Name _____ License No. _____

Title _____

Signature _____ Date _____

Firm Name and Address

AFFIX SEAL HERE

¹ As used herein, the use of the word ‘certify’ by an architect, civil engineer, or structural engineer constitutes an expression of professional opinion regarding those facts or findings, which are the subject of the certification, and does not constitute a warranty or guarantee, either expressed or implied.

² Currently applies to WSMF buildings built before 1989 in the Santa Cruz/San Francisco Bay Area (Loma Prieta) and built before 1994 in the Los Angeles area (Northridge).