

VOLUME 3, PART I

CHAPTER 4

CODES AND REGULATORY COMPLIANCE

INTRODUCTION

Building codes, standards, federal and state legislation, and federal, state, and local agency regulations may affect University projects. The University is its own enforcement agency for all code requirements except certain requirements of the fire code, access compliance with respect to State funded projects, and medical facilities covered by the Office of Statewide Health Planning and Development. For these code requirements, University projects are subject to plan approval and enforcement authority by three state agencies.

4.1 CODE COMPLIANCE

References:

- California Code of Regulations, Title 8, Industrial Safety.
- California Code of Regulations, Title 13, Motor Vehicles (Hazardous Materials Transportation).
- California Code of Regulations, Title 17, Public Health (Radiation Safety).
- California Code of Regulations, Title 19, Public Safety (State Fire Marshal).
- California Code of Regulations, Title 20, Public Utilities and Energy.
- California Code of Regulations, Title 21, Public Works.
- California Code of Regulations, Title 22, Social Security (Hospital Safety Standards).
- California Code of Regulations, Title 23, Waters (Wastewater and Stormwater).
- California Code of Regulations, Title 24, California Building Standards Code
- California Code of Regulations, Title 25, Housing and Community Development.
- California Code of Regulations, Title 26, Toxics.

All Facility design and construction projects must comply with all applicable state building code requirements and all applicable local, state, and federal agency regulations. Several other titles of the California Code of Regulations (CCR) apply to different aspects of University projects. These titles may include operational or construction provisions. Use of these titles depends on the type of project. They include, but are not limited to, the following:

- California Code of Regulations, Title 8, Industrial Safety.
- California Code of Regulations, Title 13, Hazardous Materials Transportation.
- California Code of Regulations, Title 17, Radiation Safety.
- California Code of Regulations, Title 19, Public Safety.
- California Code of Regulations, Title 20, Public Utilities and Energy.
- California Code of Regulations, Title 21, Public Works.
- California Code of Regulations, Title 23, Underground Storage Tank Regulations.
- California Code of Regulations, Title 25, Housing and Community Development.
- California Code of Regulations, Title 26, Toxics.

Title 24, or the California Building Standards Code, is one of 26 titles of CCR, formerly called the California Administrative Code (CAC).

By policy, the University follows eleven parts of CCR, Title 24, California Building Standards Code, for code compliance. Some codes are based on nationally recognized model codes, while others are California's own codes. California adds its requirements, called "amendments," to the model codes. Codes also reference national standards developed by organizations such as the National Fire Protection Association (NFPA), the American Society of Civil Engineers (ASCE), etc.

CCR, Title 24, California Building Standards Code, consists of the following 11 parts:

- Part 1, California Building Standards Administrative Code.
- Part 2, California Building Code.
- Part 3, California Electrical Code.
- Part 4, California Mechanical Code.
- Part 5, California Plumbing Code.

- Part 6, California Energy Code.
- Part 7, California Elevator Safety Construction Code.
- Part 8, California Historical Building Code.
- Part 9, California Fire Code.
- Part 10, California Code for Building Conservation.
- Part 11, NOT USED
- Part 12, California Referenced Standards Code.

The University complies with regulations of the following state agencies:

- California Building Standards Commission (BSC).
- Division of the State Architect/Access Compliance (DSAAC).
- Office of the State Fire Marshal (SFM).
- Office of Statewide Health Planning and Development (OSHPD).

Other requirements. For specialized projects, such as asbestos abatement, there may be other federal, state, and local regulations, licenses, and special permits required. Contact the Facility environmental health and safety office (see [FM2:5.3](#), and [FM4:6](#)).

4.1.1 Effective Code Date for University projects.

Fire and Life Safety Requirements. By agreement with the SFM (see [RD6.4](#)), the effective code date for fire and life safety requirements of new and remodeled University building projects is the edition of the CCR, Title 24, in effect at the time of the first submittal of "Preliminary Drawings" (design development drawings and specifications) as defined in the *State Administrative Manual*. The date of receipt of this first submittal is the official "date of record" for the project. The edition of CCR, Title 24, in effect on that date will be applied for the duration of the project. In the event Preliminary Drawings are not submitted to the Designated Campus Fire Marshal prior to submission of "Construction Documents" (defined as working drawings and specifications), the edition of the CCR, Title 24, in effect on the date of receipt of the Construction Documents by the Designated Campus Fire Marshal will apply. An exception to this procedure could occur during the 180-day transition to newly-adopted code edition, a campus and the Designated Campus Fire Marshal may agree to use the new code edition although not yet legally in effect.

Disabled Access requirements. Division of the State Architect/Access Compliance (DSAAC) requires that projects be designed to the latest disabled access provisions in the Building Standards Code in effect at the time of filing of an application with its offices.

Medical Center requirements. Acute care hospital projects, skilled nursing facilities, or intermediate care facilities must comply with the Office of Statewide Health Planning and Development (OSHPD) procedures and requirements. OSHPD requires that projects be designed to the latest provisions in Building Standards Codes in effect at the time of filing an application (i.e. apply for permit) with its office. Campus Building Officials, not OSHPD, review applications for "licensed clinics" or OSHPD 3 regulations.

4.1.2 Building Official

Campus Building Official. Each Facility designates a "Campus Building Official" to perform the functions of "Building Official" as required by the California Building Standards Code. (see [RD6.6](#)) Campus Building Officials ensure code compliance for all campus projects and ensure that fire and life safety requirements are reviewed by the Designated Campus Fire Marshal and Disabled Access requirements are reviewed by the Division of the State Architect, Access Compliance when required. Campus Building Officials also enforce OSHPD's "licensed clinic" regulations referred to in the Building Code as "OSHPD 3". Campus Building Officials shall establish procedures appropriate to a facility's organizational structure to carry out the responsibilities and duties of "Building Official" outlined in the California Building Standards Code. Campus Building Officials, at their discretion, oversee the code compliance process, including the issuance of a Certificate of Occupancy. In the administration of these duties, Campus Building Officials may use in-house staff or consultant plans examiners and construction inspectors. These plan examiners and construction inspectors, whether hired or contracted by the Campus Building Official, must meet qualifications and requirements established in California Health and Safety Code, Sections 18949.25-18949.31. If not registered professional engineers, licensed land surveyors, or licensed architects, they must be certified by a recognized state, national, or international association and have at least three years of verifiable experience in the appropriate fields, as determined by the Campus Building Official (e.g. experience as an International Code Council Building Plans Examiner, or an Office of Statewide Health Planning and Development (OSHPD) Class "A" Inspector).

Campus Building Officials issue a Certificate of Occupancy after verification of code compliance and review by other officials, as appropriate. The form of the Certificate of Occupancy is determined by the Campus Building Official and should include the following information:

- numerical identifier i.e. project number, or indication of the specific area of work
- building's address i.e. building number (e.g. CANN), names of street(s) abutting project, if any, with street number, if any, followed by City & County in which project is located

- owner's name i.e. "Regents of the University of California"
- a description of the portion of the building for which the certificate applies
- a statement that the project has been inspected for compliance with the requirements of the code
- building official's name and signature
- date

Campus Fire Marshal. A Campus Fire Marshal is the responsible enforcement authority for State Fire Marshal regulations and grants "fire clearance" before a building is occupied. Therefore, it is important that the Campus Building Official and the Campus Fire Marshal work together to ensure code compliance. (see also "Office of State Fire Marshal" in section 4.1.3 below).

4.1.3 State Agencies with Plan Approval Authority

Three state agencies have plan approval authority for code compliance for University projects. Construction documents and supporting data are submitted to these code enforcement agencies for final approval (see [RD1.2](#), State Agencies with Plan Approval Authority). Agency reviews result in document approvals and the necessary permits for funding release (state-funded projects), bidding, and construction. Each Facility is responsible for meeting the code requirements of these agencies and to obtain the necessary project approvals from these enforcing agencies. The three agencies that perform plan review for University projects are:

Division of the State Architect, Access Compliance. When required, Division of the State Architect, Access Compliance (DSA-AC), has plan approval authority for disabled access code compliance. Several parts of Title 24, California Building Standards Code, contain the accessibility requirements for facilities. (See also [II:4.5.1](#) for a discussion on the Americans with Disabilities Act).

When using Title 24, Chapter 11B, Section 1134B, "Accessibility for Existing Buildings", to determine if a renovation project has a "valuation threshold" that triggers the disabled access "path of travel" requirements for existing buildings, use the sum of the costs listed on lines 0, 1, 2 and 4 in the Capital Improvement Budget (CIB) as the "Total Construction Cost." The concept of "disproportionate cost," or the "20% rule," only applies to existing buildings.

Office of the State Fire Marshal. The Office of the State Fire Marshal (SFM) has historically performed plan review and construction inspection for UC projects, excluding Medical Center projects, to ensure compliance with fire and life safety regulations. SFM requirements are located in various parts of Title 24, the California Building Standards Code. The University currently has a Memorandum of Understanding (MOU) with the State Fire Marshal that allows qualified Campus Fire Marshals to perform plan review, approval and construction inspection for fire safety regulations at campuses. If a campus elects to participate, qualified Campus Fire Marshals with this authority are called "Designated Campus Fire Marshals (DCFM)." (see [RD6.8](#)). Campuses submit projects to the DCFMs in lieu of submittals to the State Fire Marshal's office. Under the MOU, qualified Campus Fire Marshals also have the authority to perform "Existing Facility Inspections" or Title 19 Inspections.

Office of Statewide Health Planning and Development. The Office of Statewide Health Planning and Development (OSHPD) performs plan reviews and construction inspection of hospital and acute health care facilities including Acute Care Hospitals, Acute Psychiatric Hospitals, and Skilled Nursing Facilities (excluding certain licensed clinics).

OSHPD requirements for hospitals and acute health care facilities are located in various parts of Title 24, California Building Standards Code. OSHPD's administrative regulations such as fees, submittal procedures, and SB 1953 (Alquist Hospital Seismic Safety Act) requirements are found in Title 24, Part 1, Building Standards Administrative Code. OSHPD's building standards are found in both special OSHPD chapters or in particular code sections indicated by "[OSHPD 1 or 2].". The University has a Memorandum of Understanding (MOU) with OSHPD allowing qualified Campus Fire Marshals to do plan review and construction inspection at Medical Centers for fire and life safety. Contact the Designated Campus Fire Marshal to verify if a Medical Center is enrolled in the program. (see [RD6.7](#)). Medical Centers submit projects to the DCFMs for plan review and construction inspection of fire and life safety regulations in lieu of submittals to OSHPD.

OSHPD's building standards for Licensed Clinics are located in several code sections and are indicated by "[OSHPD 3]." Clinic projects are not submitted to OSHPD for plan review, but rather fall under a Campus Building Official's jurisdiction. (See OSHPD's website at: <http://www.oshpd.ca.gov/oshpdkey/facilities.htm>).

Division of Occupational Safety and Health, Elevator Safety Unit (DOSH-ES). The unit reviews the construction or alteration of elevators. Senate Bill 1886, Statutes of 2002, (SB1886), amended the duties and functions of DOSH-ES. DOSH requirements are located in Title 8, Elevator Safety Orders and other applicable code sections.

4.2 PUBLIC UTILITIES AND LOCAL JURISDICTIONS

Facility and local fire departments review a Facility's emergency access plans. The departments analyze road location, configuration, turning radius, width, and location of fire hydrants.

Although local jurisdictions neither review nor approve University projects, a Facility may want to consult with these jurisdictions to allow public utility companies and local jurisdictions to assess and make recommendations about a project's impacts on their services, such as right-of-way access, easements, and utility consumption. Some local fire departments may have delegated authority from the SFM for fire and life safety issues. Examples of local jurisdictions include:

- Water districts
- Sewer (sanitary) districts (may have enforcement authority for waste water control)
- Air quality districts (may have enforcement authority for emissions control)
- Electrical power companies
- Natural gas companies
- Telephone companies

4.3 CALIFORNIA ENERGY CONSERVATION CODE REQUIREMENTS

References:

- **California Code of Regulations, Title 24, Part 6, California Energy Code.**
- **California Energy Commission-Energy Efficiency Standards:** <http://www.energy.ca.gov/title24/index.html>
- **Blueprint Newsletter** of the California Energy Commission/Energy Efficiency Division's Efficiency Standards Office (see <http://www.energy.ca.gov/efficiency/blueprint/index.html>)
- **University policy: "Energy Conservation"** (see [FM1:5.1](#)).
- **University Policy: "[Draft] Presidential Policy For Green Building Design And Clean Energy Standards"** (see http://www.ucop.edu/facil/greenbldgs/GBCE_Draft_Policy0401231.pdf)

4.3.1 Procedures for Compliance with Energy Regulations

By administrative policy, the University uses the energy efficiency requirements of Title 24, Part 6, California Energy Code, for its projects. The Campus Building Official is responsible for carrying out its enforcement. University policy requires responsible design professionals, as selected by the Facility, to submit specific certification (as required by the California Energy Code) to the Building Official for inclusion in the permanent project record documents file (see [FM6:5](#)). Copies of the Title 24 compliance forms for both residential and nonresidential construction are available on line at: <http://www.energy.ca.gov/title24/index.html>.

University policy will require Green Building design and clean energy standards. Copies of the draft presidential policy and related information is available online at: <http://www.ucop.edu/facil/greenbldgs/>

4.4 DISTRICT REGULATIONS

References:

- **California Air District Resource Directory**
<http://www.arb.ca.gov/capcoa/roster.htm>

4.4.1 Air Quality Management Districts.

Facilities are subject to both the federal and state Clean Air Acts, which are implemented through regional air quality management districts. Each air quality management district's regulations depend upon its clean air plan to address air quality in that district. Each Facility is responsible for meeting the requirements of these districts as they relate to capital improvement projects. See section 4.5.2 below and consult with Facility Environmental Health and Safety offices for additional information.

4.5 FEDERAL REGULATIONS

Facilities are subject to the Americans with Disabilities Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, and the Underground Storage of Hazardous Substances Act.

4.5.1 Americans with Disabilities Act (ADA)

References:

- "ADA Implementation Reaffirms University's Commitment to Equal Opportunity and Access," President Gardner, University of California, Office of the President, letter to Chancellors et al., Oakland, CA, August 13, 1992 (see [RD6.1](#)).
- "Americans with Disabilities Act (ADA) Implementation Summary," Assistant Vice Presidents Bocchicchio and Levin and Director Estrada, University of California, Office of the President, letter to Vice Chancellors et al., Oakland, CA, May 7, 1992 (see [RD6.2](#)).
- Americans With Disabilities Act, Title II, "Nondiscrimination on the Basis of Disability in State and Local Government Services," Federal Register, July 26, 1991: CFR28, Part 25.
- Americans with Disabilities Act, Title III Appendix A, "ADA Accessibility Guidelines for Buildings and Facilities (ADAAG)," Federal Register, July 26, 1991:CFR28, Part 36.
- California Code of Regulations, Title 24, California Building Standards Code, "Guidelines for Facilities Compliance with the Americans with Disabilities Act (ADA)," Assistant Vice President Bocchicchio, University of California, Office of the President, letter to Vice Chancellors et al, Oakland, CA, May 8, 1992 (see [RD6.3](#)).
- University policy: "Nondiscrimination on the Basis of Handicap" (see [FM1:5.1](#)).

The Americans with Disabilities Act (ADA) became law on July 26, 1990. There are five parts or "titles" of the law. Title II, Public Entities, became effective January 26, 1992. This civil rights law prohibits discrimination against any "qualified individual with a disability." Title II, Subtitle A, applies to the University:

. . .No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity or be subjected to discrimination by any such entity.
- Americans with Disabilities Act, Title II, Subtitle A.

The ADA is both an extension and expansion of Section 504 of the Rehabilitation Act of 1973. President Gardner states the following in his August 13, 1992, letter to the Chancellors:

The University's longstanding nondiscrimination and other policies relevant to disability issues are in compliance with applicable ADA provisions, as well as with Sections 503 and 504 of the Rehabilitation Act of 1973. Thus, implementation of the ADA affords us the opportunity to reaffirm our commitment to establishing and maintaining University practices, services, and programs, which provide equal opportunity and access to qualified individuals with disabilities, and which preclude unlawful discrimination against them on the basis of their disabilities.
- President Gardner, University of California, Office of the President, letter to Chancellors et al, Oakland, CA, August 13, 1992.

University policy states in part:

The University of California does not discriminate, on the basis of handicap, against any qualified handicapped persons by excluding them from participation in, denying them the benefits of, or otherwise subjecting them to discrimination under any University program or activity.
- University policy: "Nondiscrimination on the Basis of Handicap" (see [FM1:5.1](#)).

Facilities Compliance Guidelines. A May 7, 1992 letter to the Vice Chancellors Administration and Associate Laboratory Directors by Assistant Vice President Bocchicchio, Assistant Vice President Levin, and Director Estrada summarizes the procedures proposed to implement the requirements of the ADA (see [RD6.2](#)). Also, a May 8, 1992, letter from Assistant Vice President Bocchicchio to the Vice Chancellors—Administration, Vice Chancellor Blackman and Vice Chancellor Ralls, presents the University's guidelines for facilities compliance with Title II of the ADA (see [RD6.3](#)).

The University is also required to comply with the accessibility requirements found in Title 24, Part 2, California Building Standards Code (see [II:4.1.1](#)).

4.5.2 Clean Air Act

References:

- Clear Air Act Amendments of 1990 (CAA), as amended,, CFR Part 50 et seq. Montreal Protocol on Substances that Deplete the Ozone Layer.

The Clean Air Act (CAA) regulates stationary and mobile sources of air pollutants through National Ambient Air Quality Standards (NAAQS) and National Emission Standards of Hazardous Air Pollutants (NESHAPs). Major sources of air emissions include combustion equipment, process units, material storage areas, and mobile vehicle fleets.

Title V Operating Permits Program (40 CFR Part 70). Title V was adopted as part of the 1990 CAA Amendments. It is a program to permit all major sources of regulated air pollutants. The definition of a major source depends on a particular air district. Generally, a major source is one that has the potential to emit more than 100 tons per year (tpy) of any criteria pollutant or 10 tpy or any hazardous air pollutant (HAP) or 25 tpy of HAPs in the aggregate. Boiler emissions have put several facilities into the Title V program. Each local air district administers the Title V Permit Program.

CFCs. An international consensus exists that certain halocarbons, including chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform, must be restricted because of the risk of depletion of the stratospheric ozone layer. The Clean Air Act Amendments of 1990, the Montreal Protocol, and the July 1, 1992 prohibition on venting refrigerants have had a tremendous impact on facilities. The Clean Air Act (Section 608) prohibited the intentional venting of ozone-depleting refrigerants during service, repair, or disposal of air conditioning and refrigeration equipment after July 1, 1992.

Protection of Stratospheric Ozone; Refrigerant Recycling (40 CFR Part 82). These regulations under the CAA establish a recycling program for ozone-depleting refrigerants recovered during the serving and disposal of air-conditioning or refrigeration equipment.

Facilities Compliance Guidelines. The Facility is responsible for ensuring that the equipment complies with the Clean Air Act requirements and obtaining necessary permits.

4.5.3 Clean Water Act

References:

- 40 CFR Parts 122-124, Clean Water Act of 1972 (CWA)
- 40 CFR Parts 400-471, Effluent Guidelines and Standards
- 40 CFR Parts 122-125, NPDES – National Pollutant Discharge Elimination System

Wastewater (40 CFR parts 122 and 403). In general, Facilities discharge campus wastewater into municipal sanitary sewer systems for off-site treatment at local wastewater treatment plants (WWTPs). As "indirect dischargers," Facilities are governed by local wastewater pretreatment standards administered through industrial wastewater discharge permits issued to Facilities by local WWTPs. Local pretreatment standards vary widely depending upon the WWTP's capacity, condition, and effluent discharge limitations.

Facilities Compliance Guidelines. The Facility is responsible for compliance with local wastewater pretreatment standards and permit limitations, including any monitoring and reporting requirements.

Stormwater ("Industrial" facilities [40 CFR Part 122]). Under Phase I stormwater regulations designed to control "non-point source" pollution from stormwater runoff, certain discrete facilities may be required to obtain NPDES stormwater discharge permits. These facilities include landfills, wastewater treatment plants, steam electric power generating facilities (possibly co-gen plants), and Facility bus maintenance facilities. Permit conditions include preparing a site-specific stormwater pollution prevention plan, and monitoring and recordkeeping requirements.

Facilities Compliance Guidelines. The Facility is responsible for obtaining discrete "industrial facility" stormwater discharge permits and complying with all permit conditions and requirements, including preparation of a Stormwater Pollution Prevention Plan (SWPPP) for discrete facilities.

Stormwater (Construction sites >1 acre in size [40 CFR Parts 122-124]). Phase II stormwater regulations require that all Facility construction sites greater than one acre in size obtain a NPDES stormwater discharge permit. Permit conditions include preparing a site-specific stormwater pollution prevention plan, and monitoring and record keeping requirements.

Facilities Compliance Guidelines – The Facility is responsible for obtaining discrete construction site stormwater discharge permits (for all sites larger than one acre) and complying with all permit conditions and requirements including preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of appropriate sediment and erosion controls on each site.

Stormwater (Facility-wide [Phase II regulations 40 CFR Parts 122-124]) - Phase II revisions to previous stormwater regulations require that all state Facilities obtain a stormwater discharge permit covering runoff from the entire Facility. Permit conditions include preparing a site-wide stormwater management plan, and monitoring and recordkeeping requirements.

Facilities Compliance Guidelines – The Facility is responsible for obtaining a Facility-wide stormwater discharge permit including those off-site facilities captured under the regulations. The Facility is responsible for complying with all permit conditions and requirements including preparation of a Facility-wide Stormwater Management Plan (SWMP) and implementation of selected Best Management Practices (BMPs).

4.5.4 Hazardous Waste laws

References:

- **Resource Conservation and Recovery Act, 40 CFR Part 260 et seq.**
- **California Code of Regulations, Title 22, California Hazardous Waste Control Law.**
- **California Code of Regulations, Title 23, Division 3, Chapter 16, Underground Storage of Hazardous Substances Act.**

Resource Conservation and Recovery Act. Resource Conservation and Recovery Act (RCRA) and its counterpart in the California Hazardous Waste Control Law, manages the generation, transportation, and disposal of hazardous waste from cradle to grave. Each Facility is regulated as a generator, typically because of chemical usage in laboratories. However, there are other Facility activities that generate hazardous waste such as: transformer oil; janitorial cleaning compounds; vehicle fluids, maintenance materials, print shop inks and dyes, and photography shop developing solutions. Beginning in 1997, the hazardous waste generator permit program will be administered by each county's Certified Unified Program Agency (CUPA) under a Memorandum of Agreement with the California Department of Toxic Substances Control. In addition, various federal state, and local regulations apply to the transport, storage, handling, and use of hazardous materials.

Underground Storage of Hazardous Substances Act (CCR, Title 23, Division 3, Chapter 16) (RCRA 40 CFR Part 280 et seq.). Many petroleum products such as gasoline, diesel fuel, waste oil, heating oil, and vehicle fluids are often stored in underground tanks in order to comply with building and fire codes. Federal and state regulations created the following standards: by December 22, 1998, all steel underground fuel tanks must be fitted with secondary containment or both interior lining and cathodic protection; all tanks must have tank level monitors, an overfill prevention system, and a spill container; and all underground pressurized piping installed before January 1, 1984 must be retrofitted with secondary containment. Beginning in 1997, the permitting of underground storage tanks will be administered by each county's Certified Unified Program Agency (CUPA) under a Memorandum of Agreement with the State Regional Water Quality Control Boards.

Facilities Compliance Guidelines. Each Facility is responsible for compliance with RCRA and the Underground Storage of Hazardous Substances Act requirements and obtaining the necessary permits.

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