FREER
MANUAL

FOR

GENERAL ACUTE CARE HOSPITALS,
PSYCHIATRIC HOSPITALS,
SKILLED NURSING FACILITIES
AND
INTERMEDIATE CARE FACILITIES

A GUIDE FOR:

Field Reviewed Projects, Exempt Projects
and Expedited Review Projects

Office of Statewide Health Planning and Development
Facilities Development Division

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To all the staff at OSHPD for their generous contribution directly or indirectly in support of this project. To all the clients and customers who frequent this office and offer their ideas and suggestions.

Kurt A. Schaefer, PE
Deputy Director

THE FREER MANUAL

This manual is formatted to assist users in understanding and obtaining necessary clearances, plan approvals and building permits from the Office of Statewide Health Planning and Development (OSHPD) for projects classified as "Field Review", "Exempt" or "Expedite Review".

The manual will be periodically amended and updated and a numerical index page system is utilized to permit ease of updating the manual. The manual is also loose-leaf to permit users to retain the manual in binders, thus simplifying the insertion of updated material.

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STATUTORY AUTHORITY

This manual has been developed pursuant to the provisions of Health and Safety Code Section 129875 which permits the Office of Statewide Health Planning and Development to develop and set forth criteria to exempt or expedite from the plan review process certain projects undertaken by general acute care hospitals, psychiatric hospitals, skilled nursing facilities and intermediate care facilities. Section 129875 reads:

> 129875. Construction or alterations of buildings specified in paragraphs (2) and (3) of subdivision (b) of Section 129725 shall conform to the latest edition of the California Building Standards Code. For purposes of this section, "construction or alteration" includes the conversion of a building to a purpose specified in paragraphs (2) and (3) of subdivision (b) of Section 129725. Any construction or alteration of any building subject to this section shall be exempt from any plan review and approval or construction inspection requirement of any city or county.
>
> The office may also exempt from the plan review process or expedite those projects undertaken by an applicant for a hospital building that the office determines do not materially alter the mechanical, electrical, architectural, or structural integrity of the facility. The office shall set forth criteria to expedite projects or to implement any exemptions made pursuant to this paragraph.
>
> The Legislature recognizes the relative safety of single story, wood frame, and light steel frame construction for use in housing patients requiring skilled nursing and intermediate care services and it is, therefore, the intent of the Legislature to provide for reasonable flexibility in seismic safety standards for these structures. The office shall be reasonably flexible in the application of seismic standards for other buildings by allowing incidental and minor nonstructural additions or nonstructural alterations to be accomplished with simplified written approval procedures as established by the office, with the advice of the Office of the State Architect and the State Fire Marshal.
>
> The office shall continue to implement, and modify as necessary, criteria that were initially developed and implemented prior to July 2, 1989, to exempt from the plan review process or expedite those projects for alterations of buildings specified in paragraphs (2) and (3) of subdivision (b) of Section 129725 that may include, but are not limited to, renovations, remodeling, or installations of necessary equipment such as hot water heaters, air-conditioning units, dishwashers, laundry equipment, handrails, lights, television brackets, small emergency generators (up to 25 kilowatts), storage shelves, and similar plant operations equipment; and decorative materials such as wall coverings, floor coverings, and paint.

The office shall include provisions for onsite field approvals by available office construction advisers and the preapproval of projects that comply with the requirements for which the office has developed standard architectural or engineering detail, or both standard architectural and engineering detail.

HOW TO USE THE MANUAL

Definitions

The definitions section will assist the user in recognizing and identifying various initials and terms generally used in the manual. Other definitions may also be found in the Uniform Building Code, Uniform Mechanical Code, Uniform Plumbing Code, National Electrical Code, and Uniform Fire Code

How To Sections

The How To Sections of the manual will answer the majority of questions asked about OSHPD's plan review, plan approval, building permit issuance procedures and obtaining codes.

Project Guide

The Project Guide lists categories of projects determined by OSHPD to be either exempt, field reviewed or expedited. The Project Guide also assists users and OSHPD on what is the expected action to be taken for projects. The right hand column of the guide offers the user further directions, references to code sections, details, criteria, cautions and exceptions.

Criteria

The Criteria expands and offers more specific directions on certain types of projects. Design criteria is also offered if it is necessary to submit drawings and calculations.

Standard Details

A separate companion document to the Freer Manual, titled Standard Details, is also available which provides standard details the user may copy and use as part of plans submitted to the Office for approval. The details may be incorporated in any field review or expedite review project requiring approval by OSHPD. The Freer Manual, Project Guide will indicate under the remarks column if a detail is available; i.e. see Structural Details, Mechanical Details, etc.

DEFINITIONS

ACO The OSHPD Area Compliance Officer, assigned to a given geographical location.

ANSI American National Standards Institute.

ASHRAE American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

BBS The OSHPD Bulletin Board System. The telephone number is (916) 653-4632.

The BBS currently permits anyone with a Personal Computer equipped with a modem to call in 24 hours a day and determine the plan review status of a project. It is necessary that the user have the “project number, or facility number” that they wish to view to use this option.

Your Modem should be set to 8 data bits, 1 stop, no parity

If you have problems accessing the Bulletin Board System, contact the OSHPD PC Help Line at (916) 323-4811. If you have comments or questions while on the BBS, a message can be left for the System Operator.

Building Permits Annual Building Permits - "G" Permits

The law permits OSHPD to issue annual permits for all projects undertaken up to an accumulative total construction cost of $25,000 for skilled nursing and intermediate care facilities.

Once the total accumulative value of construction exceeds $25,000, OSHPD will charge an additional fee of $250 and assess all work performed at the 1.5% rate as provided by law and regulation for SNF's and 1.64% for hospitals.

It is suggested that owners or operators SNF’s and ICF’s obtain an annual permit on or shortly after July 1 of each year if any work is anticipated during the following months. The permit is issued on a fiscal year basis and is valid for a maximum period of 12 months with a predetermined expiration date of June 30 of each year. A project can be applied to the permit on and up to the expiration date of the annual permit. Therefore, the longer the period the permit is valid the more projects may be applied to the permit. Any project approvals granted through the annual permit are valid for a period of one year from date of issue.

Obtaining an annual permit will also assist the ACO in administering and approving projects which are classified as "field review". With the annual permit already issued and available at a facility, the ACO needs only to process and approve the application, drawings, and IOR application specific to the project to be undertaken.

Building Permit - "S" Permits

Projects with a construction value of more than 25,000 or more will be issued a standard building permit valid for the total period of time the project is under construction. There is no predetermined expiration date such as the June 30th, date of annual permits; however, the permit will expire one year after the date of permit issuance if construction has not started or if work has been suspended for one year.

CAN Code Application Notice.

CBC California Building Code; the State's adoption of the Uniform Building Code with State amendments.

CBSC California Building Standards Code; the State's entire adopted code i.e. the CBC, CEC, CMC, CPC and any other adopted building code or standard. Also commonly referred to as Title 24.

CCR California Code of Regulations.

CEC California Electrical Code; the State's adoption of the National Electrical Code with State Amendments.

CFC California Fire Code; the State's adoption of the Uniform Fire Code with State amendments.

CHANGE ORDER The instrument through which changes or alterations of the approved contract documents are made after a contract or similar instrument of agreement has been let.

CMC California Mechanical Code; the State's adoption of the Uniform Mechanical Code with State amendments.

CPC California Plumbing Code; the State's adoption of the Uniform Plumbing Code with State amendments.

DSE OSHPD District Structural Engineer.

Exempt Project The terms, "exempt" or "exemption" means there is no requirement to apply for a building permit, submit plans for review or pay any fees to OSHPD for the performance of any work undertaken which is identified by OSHPD as an "exempt project".

"Exempt" or "exemption" does not mean in all cases that

the work is precluded from any field inspection process necessary to assure compliance with applicable building standards, codes or other provisions required for licensure. See CRITERIA--carpet for an example.

Exemption from the permit issuance requirements shall not be deemed to grant authorization for any work to be done in any manner which violates the provisions of the California Building Standards Code, (Title 19 & 24), CCR, local building codes, or any other law or ordinance.

The ACO should be notified prior to the start of "exempt project" work. (See DEFINITIONS for Field Confirmation)

Expedited Review

All plans submitted to the Office for plan review are evaluated to determine if it is possible to expedite the plan review. The evaluation to expedite the review will consider the following:

- The plans are for minor renovation, remodeling or installation of equipment.
- The architectural, structural, mechanical, electrical and fire life safety reviews can be performed in a total time of eight (8) hours or less with no plan reviewer spending more than two (2) hours per review. Refer to Section 3.05 and 3.06 of the Plan Review SOP.
- Project types already listed as an "expedite review" in the Project Guide will automatically be considered as meeting the above criteria.

The Office also will automatically expedite the review of any project for:

- The repair of damage caused by accidents or acts of nature.
- The replacement of failed equipment which is essential to the continued operation of the facility or to sustain life support. (See CRITERIA-- Replacement in Kind)
- Repair work to correct an immediate hazard.
- Work required to correct any conditions cited by any state or local authority which pose an immediate threat to fire and life safety.
- Fire damage repair work.

All submittals will also be evaluated to determine if the plans and specifications are complete and accompanied by an Application for Plan Review or a Plan Review Application under Annual Building Permit, fee and any necessary structural calculations. Incomplete submissions will be returned for correction and resubmittal.

Field Confirmation

The "field confirmation" is a field process performed by the field staff in communication with the plan review Architect. The process is intended to guide and assist owners and operators of facilities in determining the classification of projects. The process also provides owners and operators with a written confirmation that the project is a lawful undertaking in compliance with laws and regulations. Any violations observed by the field staff, will be requested to be corrected.

The use of the field confirmation process is essential to OSHPD's efforts to continue the status of exempt projects such as maintenance, repairs, finishes and carpet replacement.

Field Review

All projects submitted to OSHPD are triaged. If all disciplines determine a field review is appropriate, the triage Architect will refer the project to the Regional Compliance Officer. The RCO will distribute the plans to the ACO for coordination back with the facility.

To initiate a field review directly with an ACO, determine if the project is field reviewable by referring to the FREER manual PROJECT GUIDE. If the guide indicates field review is possible, the field review can be initiated in the field with the assistance of the ACO.

The next step will be to discuss the scope of work with the ACO so that OSHPD can gain adequate understanding of the nature of your project. If there are no apparent life safety or significant structural issues the project may proceed to the next step. OSHPD will inform you of the need for additional information for projects which are not clear or involve life/safety/structural issues.

The next step in the process requires submission of plans (2 copies) for review by the ACO. These plans must be stamped by registered professionals in the appropriate disciplines (i.e. Architects, Structural Engineers, etc.). Once plans are approved and stamped by OSHPD, the review process is complete. The plans will then be packaged and forwarded to the Office for inclusion in the project file. Let the ACO know when you intend to start construction.

There are several important aspects involved in this process. First, OSHPD may refuse any project to be executed under this program, if the criteria is not met. Second, OSHPD will rely on receipt of plans and verified reports from design professionals as a substitute for usual detailed plan review. Third, OSHPD

field staff will see the project during and at it's completion to insure it complies with the California Building Standards Code.

It is important for all to understand that this process is built on trust. In the event that projects are misrepresented in scope or are constructed in a noncompliant manner it will be necessary for OSHPD to scrutinize each project more closely. If warranted, the facility may lose the privilege of field review.

Any **Annual Building Permit** project undertaken which qualifies as a "field review" will be reviewed and approved by the ACO. The ACO's acceptance of any field review project will be delayed until the Annual Building Permit is issued by OSHPD.

The $25,000 cost criteria in the Project Guide is given only as a guide to help the applicant determine if a field review should be considered. Not all projects of $25,000 or less can be automatically field reviewed by the ACO. Those projects involving changes to life support systems, HVAC air balance or new services may not be field reviewable.

FLSO OSHPD Fire Life Safety Officer.

HEALTH FACILITY Any facility, place or building which is organized, maintained and operated for the diagnosis, care, prevention, and treatment of human illness, physical or mental, including convalescence and rehabilitation and including care during and after pregnancy, or for any one or more of these purposes, for one or more persons, to which such persons are admitted for a 24-hour stay or longer.

HOSPITAL BUILDING Those buildings defined by Section 129725, Article 1, Chapter 1, Division 107 of the Health and Safety Code. (Please note that a Skilled Nursing Facility or Intermediate Care Facility of single story, wood frame or light steel frame construction is not considered a hospital building.)

HVAC Heating Ventilation and Air Conditioning System.

ICF Intermediate Care Facility, which is a health facility that provides the following basic services: 24-hour care to residents who have a recurring need for skilled nursing supervision and need supportive care, but who do not require availability of continuous skilled nursing care.

IOR The Inspector of Record selected and employed by the licensed facility's owner or representative to observe the construction of any given project for which a building permit has been issued by OSHPD.

IR Interpretation of Regulations as published by the Division of the State Architect, Office of Regulation Services.

NEC	National Electrical Code.
NFPA	National Fire Protection Association.
OFFICE	Sacramento Headquarters or the Los Angeles Office of OSHPD where OSHPD architects and engineers are permanently located.
OSHPD	Office of Statewide Health Planning and Development.
PAD	Post approval document.
SMACNA	The Sheet Metal and Air Conditioning Contractors National Association, Inc.
SNF	Skilled Nursing Facility, which is a health facility that provides the following basic services: skilled nursing care and supportive care to patients whose primary need is for availability of skilled nursing care on an extended basis.
SUB-OFFICE	A location outside of Sacramento or Los Angeles where OSHPD office architects are available for consultation and plan review on a scheduled basis.
T & I	Testing and Inspection.
UBC	Uniform Building Code.
UMC	Uniform Mechanical Code.
UPC	Uniform Plumbing Code.

HOW TO OBTAIN AN ANNUAL BUILDING PERMIT ("G" Permit)

No Annual Building Permit project can begin construction without the approved plans and specifications submitted with a Plan Review Application Under Annual Building Permit form.

SUBMIT TO:

Office of Statewide Health Planning and Development
Facilities Development Division
400 "R" Street, Suite 200
Sacramento, CA 95811

OR

Office of Statewide Health Planning and Development
Facilities Development Division
700 N. Alameda Street, Suite 2-500
Los Angeles, CA 90012

HOW TO INITIATE AN ANNUAL PERMIT PLAN REVIEW ("G" Permit)

Plans and specifications for the annual permit project proposed must accompany the application. At least two sets of drawings and specifications are needed for all field reviews, performed by the ACO. Subsequent to their approval, the three sets will need to be distributed by the ACO as follows:

- One (1) set to OSHPD office.
- One (1) set for retention by ACO, if requested.
- One (1) set for retention on the job site.

The Plan Review Application Under Annual Building Permit will also be returned at this time as an attachment to the Annual Building Permit.

For applications submitted to either OSHPD's Sacramento or Los Angeles Offices, at least two(2) sets of drawings and specifications need to be submitted for review by OSHPD. Subsequent to OSHPD's review, reproducible drawings and specifications will need to be submitted for stamping. Upon the return to OSHPD of three (3) sets printed from the stamped reproducible set, the Plan Review Application Under Annual Building Permit will be returned "approved".

The review of drawings will not take place unless an annual permit has been issued.

Drawings submitted to ACO for field review should be on 8½" x 11" paper. The ACOs have been provided with FAX machines to expedite the transmittal and approval process between the field, OSHPD's Sacramento Office and FLSO.

Drawings submitted to ACO for mailing to the OSHPD office must be enclosed in an envelope with the correct postage fee (stamps) applied and addressed to the appropriate OSHPD Office.

SUBMIT TO:

Office of Statewide Health Planning and Development
Plans Receiving
400 "R" Street, Suite 200
Sacramento, CA 95811

OR

Office of Statewide Health Planning and Development
Plans Receiving
700 N. Alameda Street, Suite 2-500
Los Angeles, CA 90012

HOW TO START CONSTRUCTION
(All Permits)

Prior to the start of construction, the following must occur:

- Plans and specifications reviewed and stamped approved by OSHPD.
- Copies printed of the stamped drawings and specifications submitted to and received by OSHPD.
- An Inspector of Record approved by OSHPD for the project. (Form OSH-FD-124).
- The licensed contractor, workers' compensation and/or owner-builder declarations filed with OSHPD. (Forms OSH-FD-302 or OSH-FD-306 and OSH-FD-310).
- A building permit issued by OSHPD (Form OSH-FD-302 or OSH-FD-306) and when required a Test and Inspection form (Form OSH-FD-303) and Deferred approval Item List attached.
- OSHPD notified in writing (FAX acceptable) at least 48 hours prior to the expected date of the start of construction.

Construction may now start.

HOW TO MAKE CHANGES TO APPROVED PLANS (All Permits)

All changes to approved plans and specifications must be approved by OSHPD using a Post Approval Documents form (OSH-FD-125).

The Post Approval Documents form should be submitted to the ACO's attention on all Field Review Projects.

The ACO may approve minor project changes on the job site and when necessary will consult with the FLSO on the changes. Approval of minor changes is applicable to all project types and includes, but is not limited to the following items:

1. Finish material additions, deletions, color changes, etc.

2. Repositioning of pipes, conduits, electrical outlets fire protection, alarm systems and ducts.

3. Minor non-bearing wall relocations or repositioning provided code required minimum square footage is maintained.

4. Interior door and window adjustments.

5. Attachment of wall or ceiling mounted equipment weighing less than 20 pounds.

6. Attachment of floor or roof mounted equipment weighing less than 400 pounds that will not affect structural members.

7. Ceiling support corrections necessitated by existing conditions and will meet IR 47-4 guidelines without further interpretation.

It is the responsibility of the Inspector of Record to maintain a log of all Post Approval Document changes indicating the dates of issuance and approval. Copies of all Post Approval Documents shall also be retained on the job site.

NOTE: Clarification notices or similar instructions issued by architects or engineers which are meant only to make clear or emphasize the intent of the approved drawings and which do not alter the approved drawings do not require OSHPD approval.

The ACO is to contact the FLSO for any change that impacts code compliance for Fire and Life Safety only. The FLSO may approve such change. The FLSO will include the change in question on the field report for the specific project during the next site visit and sign any post approval document on next visit.

HOW TO CLOSE-OUT PROJECT
(All Permits)

To close out a project the following must be submitted:

1. A tabulation of the final cost (includes construction and fixed/anchored equipment) in letter form with the original signature of the preparer.
2. All change orders approved by the Office.
3. Additional fees, when appropriate.
4. 100% Verified Reports from all appropriate disciplines (architect, engineers, contractor, inspector).
5. Test reports/affidavits (when necessary).
6. Clearance by the OSHPD Fire and Life Safety Officer.
7. 100% Construction Report from OSHPD ACO.
8. On "H" projects clearance by the DSE.

NOTE: State law requires OSHPD to collect additional fees if the final costs exceeds 5% of the original estimated construction cost. State law also requires OSHPD to issue a refund if there is a final cost underrun greater than 5% of the original estimated construction cost. In no case can OSHPD issue a refund that would reduce the filing fee paid to less than $250.00 even if no work was performed.

SUBMIT TO:

Office of Statewide Health Planning and Development
Facilities Development Division
400 "R" Street, Suit 200
Sacramento, CA 95811

OR

Office of Statewide Health Planning and Development
Facilities Development Division
700 N Alameda Street, Suite 2-500
Los Angeles, CA 90012

HOW TO OBTAIN BUILDING CODES

OSHPD does not maintain a supply of codes for distribution to the private sector, however contact may be made to the Office to discuss code sections for clarifications.

The various parts of the California Building Standards Code (Title 24, California Code of Regulations) can be purchased by contacting the following source:

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO)
5360 Workman Mill Road
Whittier, CA 90601-2298
Order Department (310) 692-4226 or FAX (310) 692-3853

PROJECT GUIDE

This Project Guide categorizes many of the typical small projects OSHPD reviews or exempts. Project headings include General, Site, Architectural, Mechanical, Utility Connection, Electrical, Equipment, Alarms/Communications, and Fire and Life Safety. When a project scope is identified, look for a heading and then specific item listings to help determine what action OSHPD may take. When the project scope does not clearly match one given in the list, contact the ACO for assistance.

Definitions of Exempt, Field Review, and Expedite Review are at the beginning of this manual.

If it is determined that a field review is somewhat complex, the Office technical staff may be of assistance. Phone calls or faxing the project to the Office may facilitate the field review process.

PROJECT GUIDE				
CATEGORY/ITEM	EXEMPT	FIELD REVIEW	EXPEDITE REVIEW	REMARKS
GENERAL				
MAINTENANCE Maintenance and repair (e.g. replacement of a component of a single piece of equipment).	*			See Maintenance Criteria
REPLACEMENT Replacement in kind	*			See Replacement in Kind Criteria
COST Projects of $25,000 or less in construction cost that will not materially alter Architectural, Structural, Mechanical, Electrical and Fire & Life Safety details of the existing facility or structure.		*		
SITE				
ACCESSORY BUILDINGS Detached one-story accessory buildings used as tool and storage sheds and similar uses provided the projected roof area does not exceed 120 square feet and the accessory building is located 40' or more from a licensed health facility.	*			See Accessory Buildings Criteria
ACCESSORY BUILDING UTILITY CONNECTIONS Utility connections from a detached accessory building to health facility.			*	Any connections for fire extinguishing systems and gas connections need review by FLSO.
FENCES Fences not more than 6'-0" in height as measured on both sides (i.e. on level ground) and not connected to the health facility.	*			
FOUNTAINS Installing exterior drinking and decorative fountains.		*		Expedite review if fountains are directly connected to the facility's electrical or plumbing systems.
LANDSCAPING Landscaping, surface parking, lawn and shrub sprinklers.	*			Handicapped parking features and backflow prevention devices reviewed by OSHPD field staff.
OFF-SITE WORK Off-Site Work.	*			
PARKING LOTS Parking lots.		*		See Parking Structures. Handicapped parking features reviewed by OSHPD field staff.

PROJECT GUIDE				
CATEGORY/ITEM	EXEMPT	FIELD REVIEW	EXPEDITE REVIEW	REMARKS
LIGHTING Parking lot or exterior lighting connection to health facilities			*	
PARKING STRUCTURES Detached parking structures more than 40' from health care facility & does not contain any essential services i.e. fire pump emergency generator. Provided any connecting covered walkways do not connect to any of the facility's exits required for life and fire safety.	*			Submittal of evidence of local building department approval required.
PLANTERS Installing planters less than 3'-0" high at grade.	*			Planters include freestanding pots and plant containers.
RETAINING WALLS Retaining walls not more than 4'-0" in height measured from the footing bottom to the top of wall unless supporting additional earth, equipment or structure loads or impounding flammable liquids.	*			A fence may be constructed on a retaining wall provided it is composed of wood, chain link or otherwise like light weight fencing material and the total height of the wall and fencing does not exceed 6'-0" as measured from finished grade at any point. May require local building permit.
WALKS Exterior platforms, walks and driveways not more than 30 inches above grade and not over any basement or story below. Nor affecting exiting systems.	*			
ARCHITECTURAL				
ASBESTOS Asbestos removal or encapsulation	*			If project involves the replacement of fire rated materials, OSHPD review and building permit required. See Asbestos Criteria
CABINETS Cabinets case work and storage racks attached to walls not within the existing system.			*	See Storage Shelving Criteria
Cabinets, case work and storage racks less than 5'-0" freestanding	*			See Storage Shelving Criteria. Must meet height limitations.
Open wall supported shelving		*		
CARPETING Carpeting, new and replacement	*			See Carpet Criteria for flamespread requirements and Table 420A-A CBC for acceptable locations.

PROJECT GUIDE

CATEGORY/ITEM	EXEMPT	FIELD REVIEW	EXPEDITE REVIEW	REMARKS
CEILINGS (non fire rated) Ceiling systems only		*		See IRs 47-4 and 47-5 only.
Ceilings & ceiling supported lights & grills			*	
DOORS Closing a nonrequired exit door opening		*		
Closing a required exit door		*		Balance of exiting system must meet FLSO exiting requirements.
Opening a doorway in partition wall maximum size of opening 4'-0"		*		Wall must be non-load bearing and non-shear resisting. Handicapped hardware must be provided. Non-fire rated.
WINDOWS Changing window opening to a door opening.		*		No increase in opening width.
FINISHES Painting, wall coverings, floor finishes, ceiling finishes and similar finish work in existing facilities	*			See Section 420A.9 CBC and Carpeting Criteria. Water based paints recommended for all interior spaces.
FOUNTAINS Installing interior drinking and decorative fountains.		*		
HANDRAILS Replacement of handrails in corridors	*			See Structural Details, Section 420A.5.4 CBC and Handrail Replacement Criteria.
LADDERS Ladders	*			
PORTABLE PARTITIONS AND WORK STATIONS that are not installed within corridors or exitways.	*			Exempt if 5"-9" or less in height and not permanently connected (hardwired) to the building utilities. See IR 23-13. Expedite review if over 5'-9" or permanently connected.
REMODELING Remodeling of nonpatient occupied areas			*	See Sections 420A.21, 421A.8, 421A.10 and 421A.11, CBC.
REROOFING Re-roofing project		*		Field review if roof top equipment over 400# requires remounting & approved by DSE. Field review if equipment is less than 400#s. See Reroofing Criteria.
SCREENS Screens; insect	*			See Section 420A.7.4 CBC.

PROJECT GUIDE

CATEGORY/ITEM	EXEMPT	FIELD REVIEW	EXPEDITE REVIEW	REMARKS
SIGNS Sinage and labels; surface applied and less than 20#, over 20	*			See Section 420A.14.7, CBC.
WALLS Non-load bearing fire rated wall only		*		Full height studwall cladded on both sides for full height and no wall mounted equivalent.
MECHANICAL				
Air Conditioning Unit Replacement Less than 2000 CFM 2000 CFM or more		* 	 *	
Air Conditioning Unit upgrade to larger system			*	
Supply return & Exhaust fan replacement Less than 2000 CFM More than 2000 CFM		 *	 *	Exhaust fans to be located at the discharge end of the duct work. CMC Sec. 405.1.2.
Kitchen hood exhaust fan and kitchen make-up air unit replacement.			*	
Kitchen hood fire extinguishing system replacement.		*		
Relocated ductwork and piping.		*		See CMC Sec 603 and CPC Sec 314 for SNF's & ICF's and CBC Table 16A-O for hospital buildings.
Domestic Hot water heater replacement		*		Any replacement which decreases or increases size capacity or operation characteristics requires an office review. Anti-scalding device and Seismic bracing required.
Domestic hot water system replacement			*	
DUCTS Anchorage of mechanical ducts, pipes and electrical conduits that are not located at or in required exits.	*			See CMC Section 603 and CPC Section 314.0 for SNFs and ICFs and Table 16A-O CBC for hospital buildings.
CONSTANT VOLUME SYSTEMS Supply and return air boxes		*		
PLUMBING FIXTURE Replacement in Kind	*			
New Plumbing Fixtures water closets lavatories service sinks clinic sinks janitors sinks hot tubs hydrotherapy tanks fire sprinkler heads		 * * * * * *	 * * 	

PROJECT GUIDE				
CATEGORY/ITEM	EXEMPT	FIELD REVIEW	EXPEDITE REVIEW	REMARKS
UTILITY CONNECTIONS				
Major utility connections to water, gas, electric & sewer			*	
Utility connections between health facility & meter: water, gas, electrical		*		
Utility connections between meter & utility system: water; gas, electrical		*		All connections to local codes. Building permits obtained from local authorities.
Accessory building to health facilities		*		Any connections for fire extinguishing systems and gas connections need review by FLSO.
ELECTRICAL See Electrical Load Capacity Verification Guideline, PIN 3-220, for all electrical work.				
Electrical connections for trailers containing non-essential services		*	*	
Exterior freestanding electric signs			*	If sign is in a remote location i.e. vicinity of the back of sidewalks, local authorities will have jurisdiction.
General Purpose Electrical receptacles		*		• 5 or less • 8 or less total on circuit after addition • 20 amp circuit; #12 conductor minimum • non-patient care areas only • non-essential electrical system circuitry only.
Light Fixtures		*		• 2 or less • non-patient care areas only • non-essential electrical system circuitry only
Relocation of outlets		*		
Reduction of system loads		*		
KITCHEN EQUIPMENT Kitchen grease traps replacement in kind		*		
New grease trap			*	
Installing kitchen equipment (new)			*	
Installing a kitchen hood			*	

PROJECT GUIDE				
CATEGORY/ITEM	EXEMPT	FIELD REVIEW	EXPEDITE REVIEW	REMARKS
EQUIPMENT				
Kitchen Cooking Appliances Replacement in kind kettles mixers meat slicers toasters coffee urns	 * * * * *			
Dishwashing equipment: Dishes, pots and pans components Valves, piping, spray nozzles, hoses, electric motors, controls	 * * * * *			
LAUNDRY EQUIPMENT Laundry Washers and Dryers less than 400 lbs		*		See Mechanical Details.
Laundry Washers and Dryers components Door switches, controls, electric motors, hoses, gas vents and lint traps	* * * *			Any replacement of components which decreases or increases size, capacity or operation characteristics requires a field reviews.
Installing laundry washer and dryer each unit weighing less than 400 lbs.		*		
Installing laundry washer and dryer each unit weighing more than 400 lbs.			*	
EQUIPMENT, DIAGNOSTIC Replacement in Kind. Complete or component of previously approved equipment	*			Replacement must not change mechanical or plumbing services, increase electrical loads or modify any previously approved structural anchoring.
EQUIPMENT, GENERAL Installing equipment weighing less than 400 lbs.		*		
Installing equipment weighing more than 400 lbs.			*	
Installing an ice maker exposed or not open to an exit.	*			
Vending Machines not exposed or open to an exit.	*			
Moveable Equipment	*			Moveable equipment means equipment mounted on wheels or coasters as originally designed. May be required to be restrained in place for hospitals.

PROJECT GUIDE				
CATEGORY/ITEM	EXEMPT	FIELD REVIEW	EXPEDITE REVIEW	REMARKS
Sterilizers, Steam or Electric			*	
ALARMS/COMMUNICATIONS				
Computers and monitors	*			See Alarms/ Communication Criteria
Nurse call systems			*	
Paging systems	*			Except systems which incorporate nursing call systems. See Alarms/ Communications Criteria
Telephone systems	*			See Alarms/ Communications Criteria
TV distribution systems	*			See Alarms/ Communications Criteria
Music Systems	*			See Alarms/ Communications Criteria
FIRE AND LIFE SAFETY				
Fire Sprinklers Head Relocation(s)		*		FLSO to visit facility to determine placement and contractors qualifications
Additional Fire Sprinkler Heads (10 or less)		*		
Fire Alarm device relocation(s)		*		FLSO to visit facility to determine placement and wiring method
New Fire Alarm device(s) (5 or less)		*		
New Fire Protection system (hood & duct)		*		Pre-Engineered kitchen fire systems only
Maintenance fire stop protection of walls and floors noted in local fire authority survey	*			Contact FLSO to discuss method and material to be used
Replacement of Fire rated door(s) only. Damaged door(s) and hardware	*			Approval not required but FLSO to visit facility to confirm rating and hardware
Replacement of rated door(s) and door frame(s) including hardware as well as fire rated glazing		*		
New Fire and Fire smoke damper (5 or less) for smoke detector operated		*		May be included with submittal for item #4
Patchwork of rated walls and floors	*			Approval not required but FLSO to visit facility to confirm design and method used
New exit signs (illuminated) and emergency lighting emergency generator		*		OSHPD Electrical Engineer approval is required

ACCESSORY BUILDINGS CRITERIA
(Exempt/Field Confirmation)

Plans for any building of less than 120 square feet of projected roof area to be located on the site of a facility and which are for a building type believed to be exempt, shall be submitted to the Office or Area Compliance Officer (ACO) for verification of the exemption status. The plans and supporting information submitted shall include:

1. A site plan drawn to scale showing the proposed building and distances from all adjacent buildings and property lines. Fire sprinkler system connections and fire hydrants.

2. A preliminary drawing indicating the size and function of the proposed building.

3. A cover letter stating the intended purpose of the building and requesting written confirmation of the exemption status.

The Office shall provide a written response which either confirms or denies the exempt status of the building.

Buildings located on the site which in any way limit or obstruct fire department access to the site shall not be exempted. Buildings which also adversely effect the operation of the facility, pose a potential hazard to its structural stability, or which contain spaces, services and functions required for licensure shall not be exempted.

Buildings to be located nearer than 40 feet from a health facility are not necessarily precluded from being classified as exempt. Materials of construction, location of openings and other existing conditions may permit a location nearer than 40 feet. It is best to request written verification from the Office in all cases.

If the regulations and ordinances of the local building authority require the issuance of a building permit for any building considered exempt by the Office, a copy of the building permit issued shall be forwarded to the Office as evidence of compliance. Similar evidence shall also be submitted if local zoning clearances are required.

A building permit will be required and a field review performed for any utility hookups back to the health facility.

Utility hook ups include fire sprinkler systems and fire alarm systems.

ALARMS/COMMUNICATION CRITERIA
(Exempt/Field Review/Expedite Review)

Computers and monitors, paging systems, telephone systems, TV distributions systems and music systems generally are exempt from review. A field confirmation is needed to assure compliance with applicable codes. If the field confirmation process reveals a review is needed, a field review will be performed. If the scope of the project is extensive, the ACO may require the project be submitted for an expedite review.

This section does not include fire alarm systems nor systems installed within the exiting system. The ACO is to contact the FLSO when cables for the aforementioned systems run either vertically or horizontally through fire rated floors and/or walls. The FLSO will communicate to the ACO as to the method of protecting walls and floors.

Types of cables used shall be in accordance with the C.E.C.

ASBESTOS CRITERIA
(Exempt/Field Review)

Projects involving only asbestos removal or encapsulation will not require OSHPD review or a building permit. Asbestos related work is under the jurisdiction of CAL-OSHA and shall be performed in accordance with Title 8, California Code of Regulations.

The Division of Licensing and Certification, State Department of Health Services, should be notified regarding any asbestos removal or encapsulation project.

Projects involving the replacement of fire rated materials are subject to OSHPD plan review and building permit process.

CARPET CRITERIA
(Exempt/Field Confirmation)

CBC Table 420A-A reflects location of allowable use.

Notify the Compliance Officer prior to installing carpet floor covering for new construction, replacement of carpet, and installation of carpet in existing areas not previously carpeted. The request must include:

1. A floor plan showing the areas to be covered, with each room labeled as to function, and a color code and key if more than one type of material is to be used. See Table 420A-A, CBC, for acceptable carpet locations.

2. A sample of each type of carpet, backing material and padding (if any) proposed for installation with the manufacturer's label containing specifications attached.

Minimum specifications for Fiber Floor Covering in Health Facilities:

1. Carpet for installation in corridors and exit ways must be accompanied by a report from a testing laboratory certifying a critical radiant flux rating of <u>not less than</u> .22 watts per square centimeter (22 watts/CM^2) as per "Standard Method of Test for Critical Radiant Flux for Floor Covering Systems Using a Radiant Heat Energy Source, NFPA 253." There is no flame spread required for carpet in areas other than corridors and exit ways. See Note at end of Carpet Criteria.

2. Section 308.2.2.2 CBC 95, Rooms occupied by inmates or patients whose personal liberties are restrained shall have noncombustible floor surfaces.

3. In patient corridors and other heavy traffic areas including areas subject to rolled equipment or furniture, carpet should be of maximum density to provide minimum resistance to rollers. For safety, only level loop and/or low level dense pile styles should be selected. The maximum pile height variation shall be no more than .125 inches.

4. There are no restrictions on use of carpet in administration areas.

5. Carpet may be replaced in all areas where the approval of carpet installation has been previously obtained from OSHPD or the Division of Licensing and Certification.

The flame spread testing report shall be kept on file for presentation to OSHPD upon request.

NOTE: Flame spread ratings for carpet are not a requirement of the State, but are a requirement for facilities seeking participation in the Federal Title XVIII and XIX programs (Medicare/Medicaid) which require compliance with Chapter 1-7, 12 and 13 and Chapter 31 of the 1981 edition of the Life Safety Code. Facilities not seeking participation are not required to submit reports of flame spread ratings.

DISHWASHER REPLACEMENT CRITERIA
(Exempt)

Design Criteria (If needed)

Anchorage

- Anchorage shall be designed to resist a seismic force equal to 20% of the equipment weight, full of water, for single story SNFs and ICFs and 30% for hospital buildings.

- The equipment shall be mounted on a concrete floor slab on grade.

- Expansion anchors: Identify the manufacturer, type, diameter, and minimum embedment. The expansion anchor used must have allowable load values for shear and tension as indicated in IR 26-6.

Plumbing

- Rinse water temperature measured at the automatic dishwashing equipment shall be 180 degrees F except where chemical rinse is approved by Department of Health Service, Licensing and Certification.

- Appliances equipped with pumps, drips, or drainage outlets may be drained by indirect waste pipes discharging into an approved type open receptor. Section 807.0 CPC

- Hoods shall be installed at or above dishwashing machines. Section 508 CMC. If a hood needs to be installed plans must be submitted for an expedite review.

- The use of the existing plumbing system is acceptable provided the existing system complies with present code.
  (CPC 101.4.1)

Electrical

- Branch circuit sizing

  Individual circuit: The rating of an individual branch circuit shall not be less than the marked rating of the appliance or the marked rating of an appliance having combined loads as provided in Section 422-32, CEC.

  For motor operated appliances not having a marked rating, the branch circuit size shall be in accordance with Part B of Article 430, CEC.

  Circuits supplying two or more loads: The rating shall be determined in accordance with Section 210-23, CEC.

- Conductor sizing shall be in accordance with Article 220, CEC.

- Branch circuit overcurrent protection: Branch circuits shall be protected in accordance with Section 210-23, CEC. If a protective device rating is marked on an appliance, the branch circuit overcurrent device rating shall not exceed the protective device rating marked on the appliance, CEC 430I.

- A means shall be provided to disconnect each appliance from all ungrounded conductors and shall be located within sight of the motor controller.

- Nameplate marking shall be provided per Section 422-30, CEC.

HANDRAIL REPLACEMENT CRITERIA
(Exempt)

Corridors

- Corridors for patient traffic providing skilled nursing, intermediate care or rehabilitation services shall be furnished with a handrail on both sides at a height of not less than 30 inches nor greater than 36 inches. 420A.5, CBC.

- Handrails shall not reduce the required width of corridors by more than 7 inches. 1005.4, CBC.

Stairs

- Refer to Section 1006, CBC

- Stairways shall have handrails on each side, and every stairway required to be more than 88 inches in width shall be provided with not less than one intermediate handrail for each 88 inches of required width. Intermediate handrails shall be spaced approximately equally across the entire width of the stairway.

  Stairways 44 inches or less in width may have one handrail except that such stairways open on one or both sides shall have handrails provided on the open side or sides.

  Stairways having 3 risers or less and stairways giving access to portable work stands less than 30 inches high are not required to have handrails.

  Stairways less than 30 inches in width are permitted to have single rails.

  Intermediate handrails may be of single rail construction.

- Handrail Configuration.

  Handrails shall be 30 to 34 inches above the nosing of the treads.

  Handrails shall extend a minimum of 12 inches beyond the top nosing and 12 inches plus the tread width beyond the bottom nosing.

  Ends shall be returned or shall terminate in newel posts or safety terminals.

Where the extension of the handrail in the direction of the stair run would create a hazard, the termination of the extension shall be made either rounded or returned smoothly to floor, wall, or post. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing.

Handrails projecting from a wall shall have a space of not less than 1½ inches between the wall and the handrail.

The handgrip portion of handrails shall be not less than 1¼ inches nor more than 2 inches in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners.

EXCEPTIONS:

1. In existing buildings when the enforcing agency determines that compliance with any requirement under 1006.9.2a, CBC, would create an unreasonable hardship, an exception to the requirements for people with physical disabilities/the physically handicapped may be granted when equivalent facilitation is provided.

2. These regulations shall not apply in existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11(4), CBC.

Handrails on flights of stairs serving basements or cellars that are covered by a trap door, removable floor or grating when not in use shall stop at the floor level or entrance level so as not to interfere with the cover in the closed position.

- Handrail Design

Handrails shall consist of a lengthwise member mounted directly on a wall or partition by means of brackets attached to the lower side of the handrail so as to offer no obstruction to a smooth surface along the top and both sides of the handrail. The handrail shall be designed to provide a grasping surface to avoid the person using it from falling.

The spacing of brackets shall not exceed 8 feet.

The mounting of handrails shall be such the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point on the rail.

NOTE: Handrails may be attached to guardrails.

Ramps

- Refer to Section 1007, CBC

- Ramps having slopes steeper than 1 vertical to 15 horizontal shall have handrails as required for stairways, except that intermediate handrails shall not be required. Ramped aisles need not have handrails on sides serving fixed seating.

- Handrails are required on ramps that provide handicap/physically disabled access if slope exceeds 1 foot rise in 15 feet of horizontal run. Handrails shall be placed on each side of each ramp, shall be continuous the full length of the ramp, shall be 34 inches to 38 inches above the ramp surface, shall extend a minimum of 1 foot beyond the top and bottom of the ramp, and the ends shall be returned. Handrails projecting from a wall shall have a space of not less than 1½ inches between the wall and the handrail. The grip portion shall be not less than 1¼ inches nor more than 2 inches in cross-sectional dimension, or the shape shall provide an equivalent gripping surface and all surfaces shall be smooth with no sharp corners.

  Curb ramps do not require handrails.

In Group I, Division 1 Occupancies, ramps shall be provided with handrails.

MAINTENANCE CRITERIA
(Exempt/Field Confirmation)

The following items are examples of what would be considered maintenance:

- Replacement of burned out motors or compressors with other of the same horsepower, voltage, etc.
- Replacement of wall paper or carpeting is maintenance, however it requires ACO approval for texture and flame spread rating.
- Replacement of damaged door; however, the facility must be sure to replace rated doors with fire rated doors with the same rating and approved assemblies.
- Patching of a roof to prevent leaks must not exceed three squares (300 square feet). The material used must meet the requirements and may be approved by the ACO. Reroofing over 300 square feet requires a building permit. See reroofing criteria.
- Replacement of a defective light fixture; however, this does not include a total replacement of light fixtures for energy conservation or upgrading of the lighting.
- Replacement of damaged ceiling tile with the same type.
- Replacement of damaged plumbing fixtures such as water closets, lavatories, service sinks, etc. do not require a building permit as long as they are of the same type, size and weight, utilizing the same mounting and do not have aerators, threaded faucets without a vacuum breaker or some other feature not existing on the replaced fixture.

There are many maintenance items which do not require a building permit and it is encouraged to telephone the RCO in Sacramento or Los Angeles for clarification if there are any doubts. The RCO may send the ACO to clarify any doubts.

REPLACEMENT IN KIND CRITERIA
(Exempt/Field Confirmation)

Equipment that will increase Electrical, Mechanical, or Structural loads, will not be considered replacement in-kind.

Authorization for the replacement of equipment in kind without a permit will be approved upon verification consisting of printed supporting data and a site visit from the ACO.

The ACO will visit the site at the earliest available time to confirm that the work performed was replacement in kind and that it is in compliance with applicable codes. The replacement of any type of equipment no longer acceptable for use in health facilities will not be permitted. If the ACO determine the work does not qualify as replacement in kind, the proponent will be required to submit to the Office for approval and issuance of a building permit. The ACO will provide the proponent with an application package and explain the need to submit a completed application for permit to OSHPD with drawings and specifications.

Should there be some doubt as to whether or not the project falls within the parameters of replacement in kind, the ACO will visit the site prior to the work being performed.

Should the RCO be notified that the work is an emergency replacement required for the facility to continue operation, the RCO will tentatively approve the work and dispatch the ACO to the site to assist the proponent in assessing the work and to inform them as to any need to submit to the Office for approval.

REROOFING CRITERIA
(Field Review)

- Submittal must include:

  1. Application for Building Permit

  2. Building Permit

  3. Fee

  4. Qualification Record for the Inspector of Record(IOR)

  5. Drawings (may be done on 8½ X 11) which indicate:
     Plan view with area to be re-roofed indicated
     Slope or pitch of roof
     Remodel of existing roof or roofing over and number of existing layers
     Name and address of facility

  6. Specifications (UL Class A or B Fire Retardant) Roofing System including UL design number or system number specifically approved for reroofing.

  7. Demolition plan (removal of existing roof) if the combination of the existing roofing material and the new roofing material will invalidate the UL listing of the new material.

- All work must comply with the California Building Standards Code, Title 24, CCR.

- The drawings and roofing specifications will be stamped and reviewed by OSHPD.

- The following will be verified on site by the ACO:

  - Roofing materials and application
  - Condition of surface and supporting structure
  - Flashings, counter flashings and roof jacks
  - Insulation and vapor barrier, where applicable
  - Attic access, if required
  - Draft stops
  - Ventilation, attic and roof
  - Roof drains and drainage

- When equipment weighing more than 400 pounds such as HVAC Units are removed during the process, the equipment shall be seismically anchored when replaced and an electrical disconnect switch installed if not already provided. Structural calculations for the remounting are required.

NOTE: It is recommended that the efficiency of the filtration system be increased if the existing filter efficiency is less than the present code, provided the equipment is capable of accommodating the increased load.

- At the completion of the project, verified reports must be provided from the design professional (if utilized), contractor or owner (if owner/builder) and the Inspector of Record. Additionally, the owner must submit a final verified cost of the project.

- The OSHPD ACO will provide final inspection and clearance.

- The Office will administratively close the project upon receipt of all required documents, clearances and fees.
  (See How to Close-Out Project.)

STORAGE SHELVING CRITERIA
(Exempt/Expedite Review)

Anchorage

Exempt

- Floor supported storage racks, cabinets or book shelves with the upper storage level under 5 ft. high shall be exempt from review provided they are not to be installed within one-hour rated corridors.

Expedite Review - Design Criteria

- Floor supported storage racks, cabinets, or book shelves not more than 8 ft. in height need not be anchored if the width of the supporting base or width between the exterior legs in any direction is equal to or greater than two-thirds of the height.

- The storage racks, and their anchorage, shall be designed to resist a vertical load equal to the total load (rack plus contents) and a lateral seismic load (33% of the total load) acting concurrently.

- Steel storage racks may be designed in accordance with UBC Standard No. 27-11.

- All cabinets and shelving to be located in nurses' stations exposed to exit corridors must meet the allowable combustion loading criteria of the FLSO.

WATER HEATER REPLACEMENT CRITERIA
(Field/Expedite Review)

Design Criteria

Anchorage

- Anchorage for water heaters shall be designed to resist a lateral seismic force equal to 20% of the equipment weight, full of water, acting concurrently with the total vertical load for SNFs and ICFs and 30% for hospital buildings.

- The equipment shall be mounted on a concrete floor slab on grade.

- Expansion anchors: Identify the manufacturer, type, diameter, and minimum embedment. The expansion anchor used should have allowable load values for shear and tension indicated. See IR 26-6.

Plumbing

- Plumbing Upgrading or size increases for existing health facilities shall require a mechanical engineer's stamped approval drawings of the exact installation. Consideration of all code requirements for equipment, piping size on distribution, anti-scalding, combustion air requirements and venting shall be outlined in detail on the mechanical engineers stamped approved drawings.

- The use of the existing plumbing system is acceptable when field confirmed or plan reviewed that the existing system complies with present code (CPC 101.4.1).

- New additions or facilities shall be submitted and permitted as required by the Alfred E. Alquist Hospital Seismic Safety Act.

Permits and Inspection

- Refer to Section 503.0, CPC.

  "It shall be unlawful for any person to install, remove, or replace any water heater without <u>first</u> obtaining a permit from the Administrative Authority to do so."

- Inspection of the water heater installation is required by Chapter 5, Section 504.0, CPC.

- Clearances:

  Uninsulated water heaters shall not be located closer than six inches to unprotected combustible construction nor closer than three inches to protected combustible construction.

- Insulated water heaters shall not be installed closer than one inch to one hour rated fire walls.

- Insulated water heaters shall not be located closer than two inches to unprotected combustible construction nor closer than one inch to protected combustible construction.

- No water heater which depends on the combustion of fuel for heating shall be located in any room used or designed to be used for sleeping purposes, bathroom, clothes closet, or other confined space opening into any bath or bedroom.

- Water heaters shall be protected from damage per requirements of Section 510.0, CPC.

- Every water heater shall be accessible for inspection, repair or replacement per requirements of Section 511.0, CPC.

- Every water heater designed to be vented shall comply with the provisions of Section 512 thru 520, CPC.

- Every water heater draft hood shall comply with the provisions of Section 521, CPC.

- Required temperature and amounts

	Clinical	Dietary[1]	Laundry[2]
Liters/Hour/Bed	25.2	14.4	18.0
Gallons/Hour/Bed	6.5	4.0	4.5
Temperature Degree C	49	49	71
Temperature Degree F	120	120	160

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[1]Rinse water temperature at automatic dishwashing equipment and pot sinks shall be 180 degrees F, except for three compartment sinks utilizing chemical disinfection.
[2]The required temperature of 160 degrees F in the laundry is that measured in the washing machine and shall be supplied so that the temperature may be maintained over the entire wash and rinse period.

- At least two pieces of hot water heating equipment shall be provided to supply hot water for dishwashing and bathing. Booster heater for 125-180 degrees F water are acceptable as a second piece of equipment for dishwashing, Chapter 6, CPC.

- Water storage tanks shall be fabricated of corrosion-resistant materials or lined with corrosion-resistant materials.

- Temperature control valves shall be provided to automatically regulate the temperature of hot water delivered to plumbing fixtures used by patients to a range of 105 degrees F minimum to 120 degrees F maximum.

- The water supply to patient showers and bathtubs shall be controlled against sudden changes in temperature by valves of the thermostatic or pressure balance type.

- The hot water distribution system shall provide hot water at the required temperature at all times. Water temperature shall be taken at the point of fixture of the equipment use.

- All fixtures where water exceeding 125 degrees F is accessible to patients or personnel, warning signs in letters at least 2 inches high shall be posted above the fixtures.

Gas Fired

- Gas piping shall comply with Chapter 12, CPC.

- New or reconditioned gas fired water heaters shall bear a label of an approved testing agency, certifying and attesting that such equipment has been tested and inspected and meets the required standards.

- Combustion air shall be provided in accordance with Section 507.0, CPC.

Unfired

- Unfired domestic hot water generators (heat exchangers) supplied with steam, boiler water, solar water or other non-potable fluids shall comply with Section 602.1 of the CPC requiring double tubewall (or equivalent) construction in the heat exchanger.

Electrical

- Each storage or instantaneous type water heater shall be equipped with a temperature-limiting means in addition to its control thermostat to disconnect all ungrounded conductors, and such means shall be: (1) installed to sense maximum water temperature and (2) either a trip-free, manual reset type or a type having a replacement element. Such water heaters shall be marked to require the installation of a temperature and pressure relief valve.

  See Listing Requirements for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems
  (ANSI X21.22 - 1972).

EXCEPTION:

- Water heaters with supply water temperatures of 82 degrees C (180 degrees F) or above and a capacity of 60kw or above and identified as being suitable for this use; and water heaters with a capacity of 1 gallon or less and identified as being suitable for such use.

- Storage type water heaters: All fixed storage type water heaters having a capacity of 120 gallons or less shall have a branch circuit rating not less than 125% of the nameplate rating of the water heater.

  For branch circuit sizing, see Section 422-4(a), CEC.