

ATTACHMENT A

EXEMPT UNDERTAKINGS – UNDERTAKINGS NOT REQUIRING REVIEW BY SHPO

- A. ***Properties Less than Forty Five Years Old.*** Undertakings affecting only properties less than forty five (45) years old at the time the work takes place; provided it has not been determined to be eligible under National Register Criterion Consideration G for exceptional significance (36 CFR 60.4).
- B. ***Undertakings for Planning, Training and Educational Purposes***
1. Undertakings to fund regional workforce development programs focused on occupations in energy efficiency, water efficiency, renewable energy (distributed generation and utility-scale), and alternative and renewable transportation technologies.
 2. Undertakings to support existing clean energy job training for new hires and retraining programs for incumbent workers.
 3. Undertakings to fund energy efficiency, water efficiency, and renewable energy training for incumbent and new workers to add new skills to their professional toolbox.
 4. Undertakings to support state planning and energy assurance capabilities by improving state emergency preparedness plans and ensure quick recovery and restoration from any energy supply disruptions.
 5. Undertakings to fund training for energy infrastructure and supply systems, and conduct and participate in state and regional energy and emergency exercises.
 6. Undertakings to conduct residential and commercial building energy audits or assessments.
 7. Undertakings for the design and operation of programs to educate the public, identify the most effective methods for achieving the maximum participation and efficiency rates, establish measurement and verification protocols, and identify energy efficient technologies for possible implementation.
 8. Undertakings to develop and implement programs to conserve energy used in the transportation sector, including the use of flex time by employers, use of satellite work centers, development and promotion of zoning guidelines or requirements that promote energy efficient development, and synchronization of traffic signals.
 9. Undertakings to develop and implement building codes and inspection services, and associated training and enforcement of such codes in order to support code compliance and promote building energy efficiency.
- C. ***Building Interiors***

General Interior Work:

1. Undertakings limited to the interior spaces of properties not listed in the National Register where the work will not be visible from the exterior of the building.
2. Repairing or upgrading electrical or plumbing systems, installing fire, smoke or carbon dioxide detectors and alarms, and installing mechanical equipment, in a manner that does not affect the exterior of the building.
3. Conducting weatherization or energy conservation activities such as air sealing and insulating walls, ceilings, floors, attics, roofs, crawl spaces, ducts and foundations, provided repairs are made by a qualified contractor using current best practices.
 - a. Wall insulation – in terms of materials, blown in cellulose insulation, treated with fire-retardant salts is permitted. Spray foams should only be used in discrete locations for air-sealing and never for filling cavity walls. Urethane foams are not to be used. For moisture laden conditions and moisture vapor, more research should be conducted before in-wall insulation is used, refer to www.ohp.parks.ca.gov (go to sustainability).
4. Undertakings to replace existing residential appliances with new California-qualified residential ENERGY STAR® appliances, where the new appliances must replace appliances of the same type (AC for AC, clothes washer for clothes washer, etc.) and the replaced appliance must be properly recycled.
5. Undertakings to replace lighting in buildings with energy efficient technologies, where only the lighting equipment is replaced and there are no ground disturbances.
6. Undertakings to replace existing heating, ventilation, and air conditioning equipment, electric motors, lighting, and lighting controls with more energy efficiency equipment, where only the equipment is replaced and there are no changes to the building or structure or ground disturbance.
7. Undertakings to install dual technology occupancy sensors to control lighting for intermittently occupied spaces.
8. Undertakings to install variable frequency drives (VFDs) for electric motors, fans, and pumps.
9. Undertakings to install vending machine controls to conserve energy.
10. Undertakings to install programmable thermostats or integrated landscaping control systems to conserve energy.
11. Undertakings to install sensors and equipment controls for purposes of increasing energy efficiency.
12. Lead based paint abatement in accordance with the Standards and Preservation Brief #37.

Energy Efficiency Work with the Building Shell:

Special Note: Any work involving ground-disturbing activities requires SHPO review.

1. Performing plumbing work, including installation of water heaters, water heater tank and pipe insulation, and energy and water efficient distribution systems and controls.
2. Performing electrical work, including improving lamp efficiency, installing task/ambient lighting systems, installing lighting controls, and installing whole house fans and ceiling fans.
3. Sealing air leaks using weather stripping, doors sweeps, and caulk, and testing for and sealing of major air leaks within the building envelope and air delivery system.
4. Repair or replace water heaters, hot water distribution systems and controls.
5. Adding adjustable speed capability, such as on HVAC system distribution fans, cooling tower fans, and pumps.
6. Install insulation on water heater tanks and water distribution pipes and refrigerant lines.
7. Install solar water heating systems, provided the structure is not visible from the public right-of-way.
8. Install waste heat recovery devices, including desuperheater water heaters, condensing heat exchangers, heat pump and water heating heat recovery systems, and other energy recovery equipment.
9. Repair or replace electric motors and motor controls, such as variable speed drives.
10. Incorporate other lighting technologies, such as dimmable ballasts, day lighting controls, and occupant controlled dimming.
11. Lead based paint abatement in accordance with the Standards and Preservation Brief #37.
12. Building cleaning in accordance with the Standards and Preservation Briefs #1, #6, and #10.

Work on Heating and Cooling Systems:

Special Note: Any work involving ground-disturbing activities requires SHPO review.

1. Clean, tune, repair or replace heating systems, including furnaces, boilers, heat pumps, vented space heaters, and wood stoves.
2. Clean, tune, repair or replace cooling systems, including central air conditioners, window air conditioners, heat pumps, and evaporative coolers, and system components, to save energy and water.
3. Install insulation on ducts, heating system distribution pipes and air conditioner refrigerant lines.
4. Conduct other efficiency improvements on heating and cooling systems, including replacing standing pilot lights with electronic ignition devices and installing vent dampers, correcting improper refrigerant charge, and correcting improper airflow.

5. Modify duct and pipe systems so heating and cooling systems operate efficiently and effectively, including adding return ducts, replacing diffusers and registers, replacing air filters, installing thermostatic radiator controls on steam and hot water heating systems; provided interior of historic structures is not affected.
6. Install programmable thermostats, outdoor reset controls, UL listed energy management systems or building automation systems and other HVAC control systems.
7. Repairing or upgrading electrical or plumbing systems and installing mechanical equipment, in a manner that does not permanently change the appearance of the interior or exterior of the building.

Energy Efficiency Work Affecting the Electric Base Load of the Property:

1. Convert incandescent lighting to fluorescent or other high efficacy light source.
2. Add reflectors, LED exit signs, efficient HID fixtures, daylighting, occupancy (motion) sensors and other lighting controls that reduce lighting energy use.
3. Replace refrigerators and other appliances, replace or install controls or make other efficiency improvements to commercial refrigeration systems and to other equipment installed in nonresidential buildings.

Health and safety measures:

1. Installing fire, smoke or carbon dioxide detectors/alarms.
2. Repair or replace vent systems on fossil-fuel-fired heating systems and water heaters to ensure that combustion gasses draft safely to outside, including combustion safety testing.
3. Install mechanical ventilation, in a manner not visible from the public right-of-way, to ensure adequate indoor air quality.

D. Roofing

1. Repairing or replacing roofing with materials that closely match the historic materials and form, or with materials that restore the original feature based on historic evidence, and in a manner that does not alter the roofline.
2. Installing continuous ridge vents covered with ridge shingles or boards, or roof jacks/vents, bath and kitchen fan vents, gable vents, soffit and frieze board vents, and combustion appliance flues, if not located on a primary roof elevation or visible from the public right-of-way.
3. Installing reflective roof coating in a manner that closely resembles the historic materials and form, or with materials that restore the original feature based on historic evidence, and in a manner that does not alter the roofline, or where not on a primary roof elevation or visible from the public right-of-way.

4. Installation or replacement of downspout extensions, provided that the color of the extensions is historically appropriate for the period and style of the property.
5. Installing integrated shingle style or thin film solar systems on the rear roof of the structure, behind the parapet or not visible from the public right-of-way.
6. Repair of minor roof and wall leaks prior to insulating attics or walls, provided repairs closely resemble existing surface composite.

E. Exterior painting

1. Painting exterior surfaces unless the property is subject to review by SHPO under PRC 5024 and 5024.5 or by local landmark ordinance provisions, provided destructive surface preparation treatments, including, but not limited to, water-blasting, sandblasting and chemical removal, are not used.
2. Conducting Lead-based Paint Abatement of "Management in Place" activities carried out by a qualified contractor using current best practices and methods that are consistent with the preservation techniques in *Preservation Brief #37: Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing*.

F. Masonry

1. Power-washing exterior masonry performed by a qualified contractor at no more than 300 psi with mild detergent, using current best practices and methods that are consistent with the preservation techniques in *Preservation Brief #1: The Cleaning and Waterproof Coating of Masonry Buildings*.
2. Repairing masonry, including repointing, and rebuilding chimneys if the joints are done by hand and the mortar matches the original composition and color, and installing chimney flue liners, provided repairs are made by a qualified contractor using current best practices and methods that are consistent with the preservation techniques in *Preservation Brief #2: Repointing Mortar Joints in Historic Brick Buildings*.

G. Windows and Doors

1. Repairing or replacing caulking, weather-stripping, and other air infiltration control measures on windows and doors, and installing thresholds, in a manner that does not harm or obscure historic windows or trim.
2. Installing interior storm windows or doors, and wood screen doors in a manner that does not harm or obscure historic windows or trim.
3. Installing insulated exterior replacement doors where the openings are not altered and they cannot be viewed from the public right-of-way.
4. Installing removable film on windows (if the film is transparent), solar screens, or window louvers, in a manner that does not harm or obscure historic windows or trim.

H. Foundations

1. Underpinning and ventilating crawl spaces provided the underpinning materials are set at least two (2) inches behind the outer face of piers or foundations on the front façade.
2. Installing foundation vents, if painted or finished to match the existing foundation material.

I. General Efficiency Measures Not Affecting Exterior of Buildings

Special Note: Any work involving ground-disturbing activities requires SHPO review.

1. Installing thermal insulation, such as non-toxic fiberglass, cellulose, foam, and foil wrapped, in walls, floors, ceilings, attics, and foundations in a manner that does not harm or damage historic fabric.
2. Energy audits and feasibility studies.
3. Weatherization of mobile homes and trailers.
4. Caulking and weather-stripping around doors and windows in a manner that does not harm or obscure historic windows or trim.
5. Water conservation measures, such as low flow faucets, toilets, showerheads, urinals, and other efficient water using equipment.
6. Repairing in kind existing driveways, parking areas, and walkways with materials of similar appearance.
7. Ventilating crawl spaces.
8. Replacement of existing HVAC equipment including pumps, motors, boilers, chillers, cooling towers, air handling units, package units, condensers, compressors, heat exchangers that do not require a change to existing ducting, plumbing, electrical, controls or a new location, or if ducting, plumbing, electrical and controls are on the rear of the structure or not visible from any public right-of-way.
9. Adding or replacing existing building controls systems including HVAC control systems and the replacement of building-wide pneumatic controls with digital controls, thermostats, dampers, and other individual sensors like smoke detectors and carbon monoxide detectors (wired or non-wired).
10. Installing vents (such as continuous ridge vents covered with ridge shingles or boards, roof vents, bath and kitchen vents, soffit and frieze board vents or combustion appliance flues) if not visible from the public right-of-way.
11. New installation on non-hard wired devices including photo-controls, occupancy sensors, carbon dioxide, thermostats, humidity, light meters and other building control sensors, provided the work conforms with applicable state and local permitting requirements.
12. Adding variable speed capacity to electric motors, fans and pumps.
13. Insulation of water heater and boiler tanks and pipes.
14. Furnace or hot water tank replacement that does not require a visible new supply or venting.
15. Installing whole house fans or ceiling fans.

J. Insulation Measures Not Affecting the Exterior of the Building

1. Thermal insulation installation in walls, floors, attics and roof (excluding toxic spray foam insulation).
 - a. Wall insulation – in terms of materials, blown in cellulose insulation, treated with fire-retardant salts is permitted. Spray foams should only be used in discrete locations for air sealing and never for filling cavity walls. Urethane foams are not to be used. For moisture laden conditions and moisture vapor, more research should be conducted before in-wall insulation is used, refer to www.ohp.parks.ca.gov (go to sustainability).
2. Duct sealing, insulation, repair or replacement in unoccupied areas.
3. Attic insulation with proper ventilation.
4. Band joist insulation – R11 to R19 as applicable.
5. Water heater tank and pipe insulation, and heating system pipe insulation and air conditioner refrigerant line insulation.

K. Electric Base Load Measures Not Affecting the Exterior of the Building

1. Appliance replacement (upgrade to EnergyStar or higher efficiency appliances).
2. Compact fluorescent light bulbs or other high efficacy light source.
3. Energy efficient light fixtures, including ballasts (Replacement).
4. LED light fixtures and exit signs (Replacement).
5. Upgrade exterior lighting (replacement with metal halide bulbs, LEDs, or others) along with ballasts, sensors and energy storage devices not visible from any public right-of-way.
6. Refrigeration equipment and systems replacement, controls, tuning and repair.
7. Thermal energy storage devices and controls not visible from any public right-of-way.
8. Replacing lighting in parking lots, traffic signals and street lighting with energy efficient technologies, where only the lighting equipment is replaced and there are no ground disturbances.

L. Efficiency and Repair Measures

1. Installation or replacement of downspout extensions, provided that the color of the extensions is historically appropriate for the period and style of the property.
2. Repairing or upgrading electrical or plumbing systems and installing mechanical equipment, in a manner that does not permanently change the appearance of the interior or exterior of the building.
3. Installing integrated shingle style or thin film solar systems on the rear roof of the structure, behind the parapet or not visible from the public right-of-way.
4. Installing solar systems (including photovoltaic and solar thermal) not visible from the public right-of-way and if ground mounted can be installed

without ground disturbance and if roof mounted will not require new building reinforcement.

5. Lead based paint abatement in accordance with the Standards and Preservation Brief #37.
6. Building cleaning in accordance with the Standards and Preservation Briefs #1, #6, and #10.
7. Installing vents (such as continuous ridge vents covered with ridge shingles or boards, roof vents, bath and kitchen vents, soffit and frieze board vents or combustion appliance flues) if not visible from the public right-of-way.