

## **CO DETECTORS, SMOKE ALARMS AND WATER HEATER REQUIREMENTS**

For properties located in States that mandate the installation of CO Detectors, Smoke Alarms and/or Water Heater Strapping requirements, Land Home Financial Services, Inc. (LHFS) requires the following when an Appraisal or Property Inspection note these items are required but missing or improperly installed.

### **CONVENTIONAL AND VA LOAN TYPES:**

**Conventional Loan Types:** The Appraiser indicates CO Detectors or Smoke Alarms are missing, or that inadequate strapping of a Water Heater is noted and marks the appraisal “Subject To” completion of these items, the completed work must be recertified by the appraiser and a 1004-D, if there are other repairs or inspection items noted.

If the Appraisal, however, notes the above items are missing or the appraisal is marked “As Is,” and the appraiser comments these items are missing or incomplete, LHFS will accept the following to support the work has been satisfactorily completed:

- Loan Purchases:
  - [LHFS Certification Form](#) completed and signed by either the Seller or Agent(s);
  - Must include receipt/proof of purchase; and
  - Photo(s) of installation (water heater strapping).
    - One picture of the home’s front entrance must also be included.
- Loan Refinances:
  - [LHFS Certification Form](#) completed and signed by Borrower(s);
  - Must include receipt/proof of purchase; and
  - Photo(s) of installation (water heater strapping).
    - One picture of the home’s front entrance must also be included.

**VA Loan Types:** If the Appraiser indicates CO Detectors or Smoke Alarms are missing or that inadequate strapping of a water heater exists, the LAPP Reviewers should not indicate these items on the NOV regardless if the appraisal was done “As Is” or “Subject To.” VA does not consider these items to be part of the Federal Minimum Property Requirements. The reviewer will, however, condition for these items to be completed. To satisfy the condition, LHFS will accept the same [LHFS Certification Form](#) and documentation evidence as outlined above for Conventional loans with “As Is” appraisals.

**Note:** If the Appraisal, does not indicate that these items are not installed but completes the appraisal as meeting minimum property standards we will assume that they are in place.



## **FHA AND USDA LOAN TYPES:**

If the Appraisal does not indicate that these items are installed, then Underwriter must condition for the appraiser to address whether they are in place (Note: Only if the state mandates these items). If it's determined that they are missing these items, and there are any other repairs requiring corrections in order for the property to meet the Agencies minimum property requirements, the loan must be conditioned for and re-inspected by the Appraiser in order to obtain a clear 1004-D.

However, if the Appraisal is "Subject To" the requirements of installing CO Detector(s), Smoke Alarms and/or seismic Water Heater strapping **and** the property is located in an area that is feasible for the Loan Officer or Branch Manager to visit and inspect for completion, this is acceptable in lieu of an Appraiser issued 1004-D. This needs to be confirmed with the parties involved early on so that the Underwriter/Reviewer can properly condition the loan.

- For FHA loans the DE Underwriter must issue the Conditional Commitment (92800.5B) indicating that the "Lender" will complete the re-inspection by noting on page 1 and circling on page 2 the letter "N" of the form. Otherwise the letter "M" on page 1 and 2 should be noted as the Appraiser will be the one to certify the repairs are completed.
  - For the Lender certification procedure, the 92800.5B will outline that the Lender will re-inspect the property for the items to be installed; provide completed and signed [LHFS Certification Form](#) along with receipt/proof of purchase and photo(s) of installation (water heater strapping). One picture of the home's front entrance must also be included.
- For USDA loans the Underwriter will condition the loan for the "Lender to complete the re-inspection of the property; Provide completed and signed [LHFS Certification Form](#) along with receipt/proof of purchase and photo(s) of installation (water heater strapping). One picture of the home's front entrance must also be included.

## CO DETECTOR REQUIREMENTS BY STATE:

### States That Require CO Detectors

### States That DO NOT Require CO Detectors

\* Please reference [State Specific Requirements](#)

<u>Alabama*</u>	<u>Oklahoma*</u>	Arizona
Alaska	<u>Oregon*</u>	Arkansas
California	<u>Pennsylvania*</u>	Delaware
<u>Colorado*</u>	<u>Rhode Island*</u>	Hawaii
Connecticut	South Carolina	Indiana
<u>Florida *</u>	Tennessee	Kansas
<u>Georgia*</u>	Utah	Mississippi
<u>Idaho*</u>	<u>Vermont*</u>	<u>Missouri*</u>
<u>Illinois*</u>	<u>Virginia*</u>	Montana
<u>Iowa*</u>	<u>Washington*</u>	Nevada
Kentucky	<u>West Virginia*</u>	Ohio
Louisiana*	<u>Wisconsin*</u>	South Dakota
Maine	Wyoming	Texas
Maryland*		
Massachusetts		
<u>Michigan*</u>		
Minnesota		
Nebraska		
New Hampshire		
<u>New Jersey*</u>		
<u>New Mexico*</u>		
New York		
<u>North Carolina*</u>		
North Dakota		



## **CO DETECTORS – ADDITIONAL REQUIREMENTS:**

**Alabama (AL):** CO detectors/alarms are required in every new dwelling constructed on or after October 1, 2012, and containing a fuel-fired appliance, or an attached garage. For buildings existing before October 1, 2012 and having either a fossil-fuel fired appliance or an attached garage, CO detectors/alarms are required where on or after 10/01/2012 alterations, repairs, or additions requiring a permit occur, or where one or more sleeping rooms are added or created.

**Colorado (CO):** A Carbon Monoxide alarm is required within fifteen (15) feet of any bedroom sleeping area in all Colorado residential dwellings with a fuel fired heater or appliance, a fireplace, or an attached garage. Hardwired alarms must have a battery backup.

**Florida (FL):** If there is a boiler in the unit, at least one CO detector is required. CO detector must be placed in the room or space where the boiler is located. If the property does not have a boiler, CO detectors are not required.

**Georgia (GA):** Carbon monoxide detectors must be installed in the general vicinity of each sleeping area of all one- and two-family homes and townhomes of three stories or less that were built on or after January 1, 2009.

**Idaho (ID):** Effective January 2011: CO detectors are required outside of each separate sleeping area in the immediate vicinity of the bedrooms in all newly constructed one and two-family dwellings and townhomes not more than three stories.

**Illinois (IL):** Every dwelling unit shall be equipped with at least 1 approved CO alarm in an operating condition within 15ft of every room used for sleeping.

**Iowa (IA):** Residences with fuel-burning heaters, fireplaces, gas stoves and garages are required to have CO detectors.

**Louisiana (LA):** Required for all single-family dwellings, two-family dwellings, and townhouses less than three stories constructed on or after 01/01/2011. Required for existing dwellings constructed before 01/01/2011 when alterations, repairs, or additions occur, or where one or more sleeping rooms are added or created in existing dwellings that have attached garages or in existing dwellings within which fuel fired appliances exist.

**Maryland (MD):** Carbon monoxide detectors/alarms are required for any dwelling unit that relies on a fossil fuel (e.g. wood, kerosene, gasoline, charcoal, propane, natural gas, oil) for heat, ventilation, hot water, or clothes dryer operation and is a newly-constructed dwelling with a building permit issued on or after January 1, 2008.

**Michigan (MI):** New constructions or anything that requires a permit on or after 3/9/2011, must contain CO detectors.

**Missouri (MO):** Required in rental properties; the owner of a rental or leased property that is a dwelling unit required to be equipped with one or more approved carbon monoxide or smoke alarms shall provide and install one approved and operational carbon monoxide or smoke alarm within ten feet of each room used for sleeping.

**New Jersey (NJ):** Carbon monoxide detectors are required when there is a change of occupancy of a 1-2 unit dwelling that is subject to a municipal ordinance requiring the issuance of a certificate of occupancy, certificate of inspection or other documentary certification of compliance with laws and regulations relating to the safety, healthfulness and upkeep of the premises, unless there is no potential carbon monoxide hazard in the dwelling unit.

**Edison Township NJ:** Owners of one and two-family homes must install carbon monoxide alarms when homes are sold.

**New Mexico (NM):** A CO alarm must be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in all newly constructed one- and two-family dwellings and town homes not more than three (3) stories having fuel burning appliances or attached garages and when work requiring a permit occurs in such existing properties.

**North Carolina (NC):** Carbon monoxide detectors/alarms are required in the following dwellings: 1) New Construction; 2) Existing dwellings constructed on or after January 01, 2011; and 3) Existing dwellings constructed before January 01/2011 "where interior alterations, repairs, fuel-fired appliance replacements, or additions requiring a permit occurs, or where one or more sleeping rooms are added or created.

**Mecklenburg County, NC:** All existing or new construction dwellings.

**Oklahoma (OK):** Required in all one and two-family dwellings and townhouses not more than three stories, constructed on or after 07/15/2011. Required in existing construction where alterations, repairs and/or additions requiring a permit occur, or where one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with carbon monoxide alarms located as required for new dwellings. Exceptions: (A) Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of a porch or deck are exempt from requirements of this section; (B) Installation, alteration, or repairs of electrical, plumbing or mechanical systems are exempt from the requirements of this section.

**Oregon (OR):** CO Alarm is required within fifteen (15) feet of bedroom sleeping areas on each level with bedroom sleeping areas if the dwelling has an attached garage or heater, or fireplace, appliance, or cooling source that uses a fuel that emits CO as a combustion byproduct.

**Pennsylvania (PA):** Owner Occupied – Carbon Monoxide detectors are required in any new construction on or after 12/31/2009 with a fossil fuel burning appliance, a fireplace, or an attached garage, and in any construction existing before 12/31/2009 with a with a fossil fuel burning appliance, a fireplace, or an attached garage where a permitted addition began on or after 12/31/2009.

**Pennsylvania (PA):** Non-owner Occupied – Carbon Monoxide detectors are required in any rental property with a fossil fuel burning appliance, fireplace, or an attached garage regardless of the year built.

**Rhode Island (RI):** A CO detector is also required outside sleeping areas. Smoke alarms are also required outside sleeping areas and on each dwelling level, and combination Smoke Alarm/CO alarms are acceptable.





**Vermont (VT):** CO alarms must be installed within the vicinity of any bedrooms in the dwelling.

**Virginia (VA):** CO alarms are required for all residential properties (tenant-occupied dwellings) containing a fuel-burning appliance or attached garage. Alarms required on each level of the dwelling containing sleeping areas, placed outside of and in the immediate vicinity of each sleeping area.

**Washington (WA):** All non-primary residence shall install CO detectors. All newly constructed buildings classified as residential occupancies will be equipped with carbon monoxide alarms, and all other buildings classified as residential occupancies will be equipped with carbon monoxide alarms by 1/1/13.

**West Virginia (WV):** CO alarms are required for any residential dwelling constructed with a fuel-burning, heating, or cooking source on or after July 1, 1998. For residential dwellings with a fuel-burning, heating, or cooking source constructed on or after July 1, 2013, AC-powered ("hard-wired") CO alarms with battery backup are required.

**Wisconsin (WI):** Carbon monoxide and smoke alarms are required in almost all\* one- and two-family dwellings, regardless of the building's age, on each level of the home, including basements. CO and smoke alarms must be installed in the basement, and on each floor level; this does not include attics, garages, or storage areas.

Separate or combination Fire and CO alarms are acceptable, and they may be powered by batteries, or in the case of new construction (on or after February 1, 2011) tied into the home's electrical system, interconnected with battery backup.

\* CO alarms required in dwellings with fuel burning appliances, fireplaces or attached garages. Smoke alarms required in all dwellings.



## **SMOKE DETECTOR REQUIREMENTS BY STATE:**

States That Require Smoke Detectors

States That DO NOT Require Smoke Detectors

(See [State Specific Requirements](#))

Alabama	New Mexico
Alaska	New York
Arizona	North Carolina
Arkansas	North Dakota
California	Ohio
Colorado	Oklahoma
Connecticut	Oregon
Delaware	Pennsylvania
Florida	Rhode Island
Georgia	South Carolina
Hawaii	Texas
Idaho	Tennessee
Illinois	Utah
Indiana	Vermont
Iowa	Virginia
Kansas	Washington
Kentucky	West Virginia
Louisiana	Wisconsin
Maine	Wyoming
Maryland	
Massachusetts	
Michigan	
Minnesota	
Mississippi	
Missouri	
Montana	
Nebraska	
Nevada	
New Hampshire	
New Jersey	

South Dakota
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## **SMOKE DETECTOR – ADDITIONAL REQUIREMENTS:**

**Alabama (AL):** Smoke alarms are required on each floor of a residential dwelling, outside of sleeping areas and one in each sleeping room. Residential dwellings constructed after 07/01/2013 must have interconnected smoke alarms with battery backup.

**Alaska (AK):** Smoke alarms are required in all residential dwellings (statute does not list specific placement requirements).

**Arizona (AZ):** Smoke alarms are required in each bedroom or sleeping area of all residential dwellings constructed on or after 01/01/2016, and in residential dwellings constructed before 01/01/2016 where remodeling that requires a permit from the local political subdivision is completed.

**City of Tucson:** Smoke alarms are required in each bedroom or sleeping area of all residential dwellings, and in every room in the path or egress from sleeping areas. For split level sleeping areas without an intervening door between adjacent levels, a single alarm on the upper level suffices for both sleeping areas, if the lower sleeping area is less than one full story below the upper level.

**California (CA):** Smoke alarms are required in each sleeping room and in the immediate vicinity outside of the

bedrooms (i.e. hallway), and on each level of a residential dwelling. At minimum, 10-year, sealed battery powered alarms are required. Hardwired alarms must have battery backup.

**Colorado (CO):** A smoke alarm is required within 15 feet of any bedroom sleeping area in all Colorado residential dwellings. Hardwired alarms must have a battery backup.

### **Connecticut (CT):**

**Single Family Dwelling:** Connecticut law requires smoke detectors to be installed in residential single-family dwellings if the building permit for new occupancy was issued on or after October 1, 1978. The detectors must be hard-wired with battery backup if the building permit was issued on or after October 1, 1985.

**Multi-Family Dwelling:** Connecticut law requires smoke detectors in all multi-family dwellings. Acceptable power source requirements depend on when the dwelling was built. For those multi-family dwellings issued a building permit for new occupancy:

- 1) If on or after 10/01/1976 but before 10/01/1985, the detectors must be hardwired; and
- 2) If before 10/01/1976, the detectors may be battery powered.

**District of Columbia (DC):** A smoke alarm is required in every room used for sleeping purposes, placed on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms, on each level within the dwelling unit.

**Delaware (DE):** Smoke alarms are required in all residential dwellings, on each level of the dwelling including the basement and outside each bedroom or group of bedrooms. In residential dwellings constructed prior to 07/08/1993, smoke alarms may be battery powered. Residential dwellings constructed after 07/08/1993 must have hard-wired smoke detectors.





**Florida (FL):** Existing Construction, Built Before 01/01/2015 - Smoke alarm is required in the hallway outside each bedroom. Multi-story dwellings must have a smoke alarm on each level of the dwelling, except uninhabitable attics. In split-level homes, if there is no intervening door between the levels, an alarm installed on the upper level will suffice for the lower level. Effective 01/01/2015, a battery-powered smoke alarm must be powered by a non-removable, non-replaceable battery power that powers the alarm for at least ten (10) years. For New Construction, Built On or After 01/01/2015 - Same guideline for existing, plus a smoke detector in each bedroom.

**Georgia (GA):** Every GA residential dwelling must have at least one smoke alarm that is wall or ceiling mounted located in each corridor or area that gives access to rooms used for sleeping areas. Multi-story dwellings must have a smoke alarm on each level of the dwelling, including basements, cellars, and attics (except uninhabitable attics). In split-level homes, if there is no intervening door between the levels, an alarm installed on the upper level will suffice for the lower level.

**Hawaii (HI):** Hawaii adopted the 1994 Uniform Building Code §310.9.1; residents must install smoke alarms in all new and renovated dwelling units, in each hallway, on every floor of the home near bedrooms, and in every bedroom and sleeping area. Placement must be on the ceiling at least four inches away from walls or on walls 4--12 inches below the ceiling.

**Idaho (ID):** Smoke alarms are required on each level with bedrooms, immediately outside the bedrooms. In split-level dwellings with bedrooms on both levels an alarm on the upper level suffices, as long as there is no intervening door between the upper and lower level of the hall or room providing access to the bedrooms.

**Illinois (IL):** Every Illinois residential dwelling must have at least one smoke alarm located within 15 feet of bedroom sleeping areas, ceiling mounted, or wall mounted within 4--6 inches from the ceiling. Single family homes must have a smoke alarm on each level of the dwelling, including basements and attics (except uninhabitable attics). In split-level homes, if there is no intervening door between the levels, an alarm installed on the upper level will suffice for the lower level. Effective 01/01/2015, when installing a new alarm, a sealed 10-year lithium battery alarm must be used; when replacing an existing or installing a new battery-powered smoke alarm, the alarm must be powered by a non-removable and non-replaceable lithium-ion battery with at least a 10-year rated life.

**Indiana (IN):** Every residential dwelling must have at least one (1) functional smoke alarm installed outside and in the immediate vicinity of the bedrooms placed on the ceiling or on a wall between 4--12 inches from the ceiling.

**Iowa (IA):** Smoke alarms are required in each bedroom and outside each bedroom in the immediate vicinity of the bedrooms, and on each level of the dwelling including basements and attics (except uninhabitable crawlspaces and attics). In split-level homes, if there is no intervening door between the levels, an alarm installed on the upper level will suffice for the lower level, provided the lower level is less than one full story below the upper level.

**Kansas (KS):** The Kansas Smoke Detector Act requires every single-family residence to have at least one smoke alarm on each level of the residence, including the basement.

**Kentucky (KY):** Smoke alarms must be installed in each sleeping room, outside each sleeping area in the immediate vicinity of bedrooms, and on each additional story of a dwelling, including basements.



**Louisiana (LA):** Single family homes and duplexes must install at minimum a sealed, 10-year, lithium battery smoke alarm. Smoke alarms are required in each bedroom and outside each bedroom in the immediate vicinity of the bedrooms, and on each level of the dwelling, including basements and attics, but not including uninhabitable crawl spaces or attics. In split-level homes, if there is no intervening door between the levels, an alarm installed on the upper level will suffice for the lower level provided the lower level is less than one full story below the upper level.

**Maine (ME):** All residential dwellings must have working smoke alarms within or near access to bedrooms. Dwellings constructed after 10/31/2009 must have hard-wired smoke alarms with battery backup. For purchase transactions, at closing, purchasers must sign and date certification the dwelling is equipped with smoke alarms.

### **Maryland (MD):**

**Homes constructed on or after January 1, 1989:** Must contain one hard-wired, AC-powered smoke alarm on every level of the home, including the basement. Alarms must be interconnected so activation of any one smoke alarm activates all smoke alarms in the home.

**Home constructed before January 1, 1989:** Must be upgraded to have at least one sealed, battery-operated smoke alarm with long-life batteries and silence/hush features on every level of the home, including the basement, under any of the following circumstances:

- a) The existing smoke alarm is more than ten years old\*
- b) The existing smoke alarm fails to respond or otherwise malfunctions
- c) There is a change of tenant
- d) A building permit is issued for an addition or renovation

\* To determine the smoke alarm's age, the appraiser shall remove the alarm from its ceiling base and read the manufacture date from the back of the unit. If more than 10 years have passed since the manufacture date, or there is no manufacture date, the unit must be replaced, and the appraiser shall make the report "subject to" until the smoke alarm is replaced (verified by a final inspection).

**Massachusetts (MA):** Smoke and carbon monoxide alarms must be installed on each level of residential dwellings, including basements, and within ten (10) feet of bedroom doors on levels with sleeping areas.

### **Michigan (MI):**

**In dwellings constructed before 11/04/1974:** Smoke alarms are required in each bedroom or in the area directly outside the bedrooms, and one on each level of the dwelling, including basements.

**In buildings constructed on or after 11/04/1974:** Smoke alarms are required in each bedroom and outside each bedroom in the immediate vicinity of the bedrooms, and on each level of the dwelling must have a smoke alarm on each level of the dwelling, including basements, but not including uninhabitable crawl spaces or attics. In split-level homes, if there is no intervening door between the levels, an alarm installed on the upper level will suffice for the lower level, provided the lower level is less than one full story below the upper level.



**Minnesota (MN):** Smoke alarms are required and must be installed in the following locations:

- In each sleeping room
- Outside each separate sleeping area in the immediate vicinity of the bedrooms
- On each additional story of the dwelling, including basements and habitable attics (excluding crawl spaces and uninhabitable attics); In dwellings with split-levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level will suffice for the adjacent lower level if the lower level is less than one full story below the upper level

For new residential construction, smoke alarms must be hardwired, have battery backup, and be interconnected such that when one alarm is activated, all alarms in the individual unit are activated (hard wiring of smoke alarms in existing areas is not required when alterations/repairs do not result in the removal of interior wall or ceiling finishes)

**Mississippi (MS):**

- **Every dwelling unit:** Shall be equipped with at least one (1) approved smoke detector in operating condition within fifteen (15) feet of every room used for sleeping purposes; each detector shall be installed on the ceiling and at least six (6) inches from any wall, or on the wall located between four (4) and six (6) inches from the ceiling
- **Every single family residence:** Shall have at least one (1) approved smoke detector installed on every story of the dwelling unit, including basements, but not including unoccupied attics; in dwelling units with split levels, a smoke detector installed on the upper level will suffice for the adjacent lower level if the lower level is less than one (1) full story below the upper level (however, if there is an intervening door between the adjacent levels, a smoke detector shall be installed on each level.
- **Every structure that contains more than one (1) dwelling unit, or contains at least one (1) dwelling unit and is a mixed-use structure:** Shall contain at least one (1) approved smoke detector at the uppermost ceiling of each interior stairwell; the detector shall be installed on the ceiling, at least six (6) inches from the wall, or on a wall located between four (4) and six (6) inches from the ceiling
- **Smoke detectors required in all dwelling units:** May be either battery powered or wired into the structure's AC power line and need not be interconnected

**Missouri (MO):**

- Missouri has no statewide fire code. However, codes are adopted and enforced at the local levels by cities, counties or fire districts.
- Residential Leased or Rental Dwelling Units - the owner of each unit shall install at least one approved battery- operated smoke alarm prior to new occupancy of such dwelling unit at the following locations and prior to new occupancy of such dwelling unit at the following locations and per manufacturer's recommendations:
  - on the ceiling or wall within ten (10) feet of each room used for sleeping purposes; and
  - inside each room used for sleeping purposes; and
  - on each level within the dwelling unit including the basement (excluding crawl spaces or uninhabited spaces)

**Montana (MT):** A smoke alarm is required in each bedroom and on each level of a residential dwelling.



## North Carolina (NC): Effective 01/01/2012

- **New Dwellings:** Smoke alarms shall be installed in the following locations:
  - in each sleeping room
  - outside each separate sleeping area in the immediate vicinity of the bedrooms
  - on each additional story of the dwelling, including basements and habitable (finished) attics (excluding crawl spaces and uninhabitable (unfinished) attics; in dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level will suffice for the adjacent lower level provided the owner level is less than one full story below the upper level (when more than one smoke alarm is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit)
- **Existing Dwellings:** When alterations, repairs, or additions requiring a building permit occur, or when one or more sleeping room is added or created in an existing dwelling, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings; the smoke alarms shall be interconnected and hardwired
- **EXCEPTIONS:**
  - Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, and exempt from requirements of this section Installation, alteration, or repairs of plumbing or mechanical systems are exempt from the requirements of this section

**Nebraska (NE):** Every dwelling unit within a dwelling or apartment house constructed or remodeled on or after January 1, 1982, every guest room in a lodging house or hotel constructed or remodeled on or after January 1, 1982, and every dormitory constructed or remodeled after January 1, 1982 shall be provided with one or more operating smoke detectors meeting the requirements of the State Fire Marshal's rules and regulations.

**Nevada (NV):** Smoke alarms shall be installed in the following locations:

- in each sleeping room
- outside each separate sleeping area in the immediate vicinity of the bedrooms
- on each additional story of the dwelling, including basements and habitable attics (excluding crawl spaces and uninhabitable attics): in dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level will suffice for the adjacent lower level provided the lower level is less than one full story below the upper level; when more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit
- **Alterations, repairs and additions:** When alterations, repairs, or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.
- **Exceptions:**
  - Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck are except from the requirements of this section. Installation, alteration, or repairs or plumbing or mechanical systems are exempt from the requirements of this section.





**New Hampshire (NH):** Smoke alarms are required to be installed in existing, rental, and new single and multi-family dwellings.

**North Dakota (ND):** Smoke alarms are required to be installed in existing, rental, and new single and multi-family dwelling; a specific type of required alarm is not identified.

General Smoke Alarm Placement Guidelines:

- in sleeping areas
- in every room in the path of the means of egress from the sleeping unit
- in each story within the sleeping unit, including basements (for sleeping units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level will suffice for the adjacent lower level if the lower is less than one full story below the upper level)

**New Jersey (NJ):** A homeowner or property renter must install a smoke detector on each floor of a residential dwelling, including the basement, common stairwells and hallways, and maximum of ten (10) feet outside of each sleeping area.

**New Mexico (NM):**

General Residential Smoke Alarm Requirements: In most localities, smoke alarms are required on each level and in every bedroom. For New Home Construction: Hardwired, interconnected smoke alarms are generally required.

**New York (NY):** Smoke alarms are required in all residential dwellings as follows:

- On the ceiling or wall outside each separate sleeping area in the immediate vicinity of bedrooms.
- In each room used for sleeping purposes.
- In each story within a dwelling unit, including basements (excluding crawl spaces and uninhabitable attics). In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level will suffice for the adjacent lower level provided the lower level is less than one full story below the upper level.

**Ohio (OH):** Effective 01/01/2013 and after:

- **In new dwellings:** Smoke alarms must be installed in the following locations:
  - on each level within each dwelling unit
  - in each sleeping room
  - outside each separate sleeping area, such as in the corridors in the immediate vicinity of the sleeping rooms
  - on the upper level of dwellings or dwelling units with split levels without an intervening door between the adjacent levels will suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level
- **In existing dwellings:** Smoke alarms must be provided in the following locations:
  - must be provided when alterations or repairs are made to sleeping rooms or outside each separate sleeping area, as required for a new dwelling
  - must be provided when one or more sleeping rooms are added or created in existing dwellings in the new sleeping rooms and in the immediate vicinity outside each sleeping room as required for new dwellings
- **Rental Properties:** Smoke alarms are required inside each sleeping room and in the immediate vicinity outside of all sleeping rooms.



**Oklahoma (OK):** Effective November 1, 1997, all new construction or remodeling of residential dwellings that requires a building permit shall include installment of smoke detectors or the electrical wiring necessary for installment of electrical smoke detectors.

**Oklahoma City:** Every one- or two-family home must have at least one working smoke alarm.

**Rental Properties:** Smoke alarms are required in all rental homes.

**Oregon (OR):** Smoke alarms are required on every level of residential homes, in all bedrooms, and in all hallways giving access to bedrooms.

**Pennsylvania (PA):** §4603.7 of the Fire Code requires smoke alarms installed in one- and two-family dwellings. One smoke alarm is required on each level of a home. On levels with sleeping units a smoke alarm must be installed in the immediate vicinity of the bedrooms. In homes built on or after 01/01/1998 a smoke alarm is also required in each bedroom. Smoke alarms can be mounted on the ceiling or wall: when mounted on the ceiling, they should not be installed within four (4) inches of a wall, or within three (3) feet of an air register, bathroom door, or entrance to a kitchen; when mounted on a wall, the top of the smoke alarm should be installed between four (4) to twelve (12) inches from the ceiling and not within three (3) feet of an air register, bathroom door, or entrance to a kitchen.

**Rhode Island (RI):** Smoke alarms shall be installed outside sleeping areas and on each level of the dwelling (including basements). A CO detector is also required outside sleeping areas, and combination Smoke Alarm/CO alarms are acceptable.

**South Carolina (SC):** Required in multifamily rentals only: The smoke detector must be mounted on the ceiling or wall at a point centrally located in the corridor or area going access to each group of rooms used for sleeping purposes.

Where the dwelling unit contains more than one story, detectors are required on each story including cellars and basements (not including uninhabitable attics). In dwelling units with split levels, a smoke detector must be installed only on the upper level (unless a door exists between levels, in which case a detector is required on each level).

Detectors must be connected to a sounding device or other detector to provide an alarm which must be audible in the sleeping areas.

**South Dakota (SD):** Recommended, but not required.

**Tennessee (TN):**

**Tenant-occupied:** Landlord must install and maintain smoke detectors in any residential unit offered for lease or rent. New Construction: Effective July 1, 2010 one- or two-family dwellings must be equipped with at least one (1) smoke detector that, when activated, initiates an alarm audible in every sleeping room.

## Tennessee (TN) - Continued:

**Knoxville:** All residential occupancies built after April 1983, and all existing residences undergoing \$1,000 or more of remodeling must have at least one smoke alarm installed outside the bedroom sleeping areas.

**Memphis:** A) No person shall occupy as owner-occupant, or shall let to another for occupancy, any dwelling, multifamily dwelling, dwelling unit, rooming house, unit, lodging house, or lodging unit that does not comply with the applicable provisions of the fire prevention code or the building code and other ordinances of the city and the additional requirements set out in this article for safety from fire. B) Smoke detectors shall be installed in all residential properties in accordance with National Fire Protection Association Standard No. 74, 1989 Edition, and shall be maintained in an operable condition.

**Texas (TX):** Effective September 1, 2007 each one- or two-family dwelling constructed in TX, or for existing dwellings for which a building permit is issued, must have working smoke detectors installed in the dwelling in accordance with the smoke detector requirements of the building code in effect in the political subdivision in which the dwelling is located, including performance, location, and power source requirements (at least one per habitable level is required; if all bedrooms share a single hallway a single smoke detector in the hall outside the room will suffice; on floors with no bedroom, placement should be near living areas).

**TX Rental Properties:** A smoke alarm is required in each bedroom in a dwelling unit, and in the hallway outside bedroom sleeping areas. If the dwelling unit has multiple levels, at least one smoke alarm must be located on each level.

**Utah (UT):** Smoke alarms must be installed outside each sleeping area and on every level of the home, including the basement. Larger homes may require additional smoke alarms to provide a minimum protection level.

**Vermont (VT):** Smoke alarms are required on each level of a residential dwelling, and within the vicinity of bedrooms on any level with bedroom sleeping areas.

**Washington (WA):** Smoke alarms are required in each bedroom sleeping room, in the hallways outside of bedroom sleeping areas, and on each level of a home, including basements, but exclusive of uninhabitable attics.

**Wisconsin (WI):** Smoke alarms and carbon monoxide alarms are required in almost all\* one- and two-family dwellings, regardless of the building's age, on each level of the home, including basements. Smoke and CO alarms must be installed in the basement, and on each floor level; this does not include attics, garages, or storage areas. Separate or combination Fire and CO alarms are acceptable, and they may be powered by batteries, or in the case of new construction (on or after February 1, 2011) tied into the home's electrical system, interconnected with battery backup.

\* Smoke alarms are required in all dwellings. CO alarms are required in dwellings with fuel burning appliances, fireplaces or attached garages.

**Wyoming (WY):** Smoke alarms are required on every level of new and existing dwellings, in each bedroom and in the hallways outside of bedroom sleeping areas.



## WATER HEATER STRAPPING REQUIREMENTS:

State Name	Double Strap	Minimum One Strap
Alabama	n/a	n/a
Alaska		(*) One
Arizona	n/a	n/a
Arkansas		(*) One (5 to 10 gallons)
California	(*) Double	
Colorado	n/a	n/a
Connecticut	n/a	n/a
Delaware	n/a	n/a
Florida	n/a	(*)
Georgia	n/a	n/a
Hawaii	n/a	n/a
Idaho	n/a	n/a
Illinois	(*)	
Indiana	(*)	
Iowa	n/a	n/a
Kansas	n/a	n/a
Kentucky	n/a	n/a
Louisiana	n/a	n/a
Maine	n/a	n/a
Maryland	n/a	n/a
Massachusetts	n/a	n/a
Michigan	n/a	n/a
Minnesota	n/a	n/a
Mississippi	n/a	n/a
Missouri	n/a	n/a
Montana		(*) One
Nebraska	(*)	(*)
Nevada	(*) Double	
New Hampshire	n/a	n/a
New Jersey	(*)	(*)
New Mexico	n/a	n/a
New York	(*)	(*)
North Carolina	n/a	n/a

State Name	Double Strap	Minimum One Strap
North Dakota	n/a	n/a
Ohio	n/a	n/a
Oklahoma		(*) At least One
Oregon ( <a href="#">see additional notes</a> )	(*) Double	
Pennsylvania	n/a	n/a
Rhode Island	n/a	n/a
South Carolina	n/a	n/a
South Dakota	n/a	n/a
Tennessee	n/a	n/a
Texas	(*)	(*)
Utah	(*) Double	
Virginia	n/a	n/a
Washington	(*) Double	
West Virginia	n/a	n/a
Wisconsin	n/a	n/a
Wyoming	Double	

(n/a) No seismic required  
 (\*) Additional seismic strap requirements  
[Additional Notes](#)



## **ADDITIONAL SEISMIC STRAP REQUIREMENTS:**

**Alabama (AL):** No seismic requirements.

**Alaska (AK):** Strap must be placed as close to the middle of the water heater as possible measured vertically, without blocking access to the controls.

**Arizona (AZ):** A boiler shall have masonry or structural supports of sufficient strength and rigidity to safely support the boiler and its contents without any vibration in the boiler or its connecting piping. There shall be at least 36 inches of clearance on each side of the water heater.

**Arkansas (AR):** Place strap as close to the middle of the water heater as possible, measured vertically, without blocking access to the controls.

**California (CA):** Two straps are required for water heaters with a capacity of 52 gallons or less. A water heater with a capacity of 75 gallons or more is required to have a third strap placed mid-height of water heater.

**Colorado (CO):** No seismic requirements.

**Connecticut (CT):** No seismic requirements.

**Delaware (DE):** No seismic requirements.

**Florida (FL):** Double straps are required if the county is placed in a category C, D, E, or F. Water heaters shall be anchored or strapped in the upper one-third and in the lower one-third of the appliance to resist a horizontal force equal to one-third of the operating weight of the water heater acting in any horizontal direction, or in accordance with the appliance manufacturer's recommendation. The FEMA Earthquake Hazard Map will be updated weekly to reflect changes in Seismic Design Categories.

**Georgia (GA):** No seismic requirements.

**Hawaii (HI):** No seismic requirements.

**Idaho (ID):** Double straps are required if the county is placed in a category C, D, E, or F.

**Illinois (IL):** Heat exchangers should have an air gap open to the atmosphere between two walls. Double strapping will be required if the property is located in an identified seismic zone.

**Indiana (IN):** In seismic design category C1, water heaters shall be anchored or fastened to resist horizontal displacement due to earthquake motion. In the C1 counties of Daviess, Gibson, Knox, Pike, Posey, Spencer, Sullivan, Vanderburgh, and Warrick, water heaters must be strapped at points within the upper one-third and lower one-third of its vertical dimensions. At the lower point, a distance of not less than 4 inches (102 mm) shall be maintained from the controls with the strapping.

**Iowa (IA):** No seismic requirements.

**Kansas (KS):** No seismic requirements.

**Kentucky (KY):** No seismic requirements.

**Louisiana (LA):** No seismic requirements.

**Maine (ME):** No seismic requirements

**Maryland (MD):** No seismic requirements.

**Massachusetts (MA):** No seismic requirements.

**Michigan (MI):** No seismic requirements.

**Minnesota (MN):** No seismic requirements.

**Mississippi (MS):** No seismic requirements.

**Missouri (MO):** No seismic requirements.

**Montana (MT):** The water heater's insulation and strap should have a combined R-Value of 24.

**Nebraska (NE):** No seismic requirements.

**Nevada (NV):** A water heater of 30-40 gallons must be double strapped within 12 inches of the wall stud.

**New Hampshire (NH):** No seismic requirements.

**New Jersey (NJ):** A minimum of 18 inches should be provide on all sides of the boiler. No strapping mentioned.

**New Mexico (NM):** No seismic requirements.

**New York (NY):** Water heater using solid, liquid or gas fuel should not be in a room containing air-handling machinery when such room is used as a plenum. No strapping mentioned.

**North Carolina (NC):** No seismic requirements.

**North Dakota (ND):** No seismic requirements.

**Ohio (OH):** A level working space of 30 inches deep and 30 inches wide (762mm by 762mm) should be provided in front of the control side to service an appliance. The local agency will determine if straps are required on water heaters once you apply for a permit of installation. If a water heater has already been installed and it appears to be unsafe or unstable, straps will be required.

**Oklahoma (OK):** Water heater must be strapped at least once and it should be bolted onto the floor. Contact local building department for assistance.

**Oregon (OR):** Straps are required on the upper one-third and lower one-third of the water heater. Straps are **NOT REQUIRED** in the following counties: Baker, Crooks, Deschutes, Gilliam, Grant, Harney, Jefferson, Malheur, Marrow, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler.

**Pennsylvania (PA):** No seismic requirements.

**Rhode Island (RI):** No seismic requirements.

**South Carolina (SC):** No seismic requirements.

**South Dakota (SD):** No seismic requirements.





**Tennessee (TN):** No seismic requirements.

**Texas (TX):** All water heaters located in a garage should be elevated 18 inches above the floor surface. All water heaters should also be installed with a pan in all locations with the pan drain running to the outside separately from the temperature and pressure line unless physically impossible. No strapping mentioned

**Utah (UT):** Straps are required on the upper one-third and lower one-third of the water heater. Utah Code § 15A-3-305 (1).

**Vermont (VT):** No seismic requirements.

**Virginia (VA):** No seismic requirements.

**Washington (WA):** Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Strappings shall be at points within the upper one-third and lower one-third of its vertical dimensions. At the lower point, a distance of not less than four (4) inches (102 mm) shall be maintained from the controls to the strapping. If straps are being bolted to the wall you need to use several ¼ inches by 3 inches or longer lag screws with oversized washers. If straps are being secured straight to concrete/concrete walls use ¼ inches expansion bolts and screws. WA State Code WAC51-56-0500 507.2.

**West Virginia (WV):** No seismic requirements.

**Wisconsin (WA):** No seismic requirements.

**Wyoming (WY):** These requirements apply to 30-40-gallon water heaters. Contact local building department for assistance.

## **DEFINITIONS:**

- **CO Detectors** - Carbon Monoxide Detectors
- **LHFS** - Land Home Financial Services, Inc.
- **FHA Loans** - Federal Housing Administration Loans
- **USDA Loan** - United States Department of Agriculture Loans
- **VA Loans** - Veterans Affairs Loans
- **DE Underwriter** - Direct Endorsement Underwriter
- **VA LAPP** - Veterans Affairs Lender Appraisal Processing Program
- **NOV** - Notice of Value