TITLE: WATER HEATER

VERSION: V3.0

DATE PUBLISHED: 06/20/23

DEFINITION: A device designed to generate and store hot water for domestic use.

PURPOSE: Typical domestic uses of hot water heater include providing hot water for cooking, cleaning, bathing, and space heating.

COMMON COMPONENTS: Storage tank; Electric heating element; Water supply inlet and water discharge outlet plumbing connections; Pressure relief valve and line; Low-voltage electrical connection (auto-ignition); Temperature control module; Flue gas chimney or stack; Gas fired burner; Gas shutoff valve; Thermocouple

LOCATION:

☒	Unit	Mechanical rooms, mechanical closets, basements, under stairs, kitchens
☒	Inside	Mechanical rooms, mechanical closets, basements, under stairs, kitchens
☒	Outside	Back or side yard

MORE INFORMATION: None

DEFICIENCY 1: Temperature pressure relief (TPR) valve has an active leak or is obstructed or relief valve discharge piping is damaged, capped, has an upward slope, or is constructed of unsuitable material.

LOCATION: ☒ Unit ☒ Inside ☒ Outside

DEFICIENCY 2: No hot water.

LOCATION: ☒ Unit ☒ Inside

DEFICIENCY 3: The relief valve discharge piping is missing or terminates greater than 6 inches or less than 2 inches from waste receptor flood-level.

LOCATION: ☒ Unit ☒ Inside ☒ Outside

DEFICIENCY 4: Chimney or flue piping is blocked, misaligned, or missing.

LOCATION: ☒ Unit ☒ Inside ☒ Outside

DEFICIENCY 5: Gas shutoff valve is damaged, missing, or not installed.

LOCATION: ☒ Unit ☒ Inside ☒ Outside

DEFICIENCY 1 – UNIT: TEMPERATURE PRESSURE RELIEF (TPR) VALVE HAS AN ACTIVE LEAK OR IS OBSTRUCTED OR RELIEF VALVE DISCHARGE PIPING IS DAMAGED, CAPPED, HAS AN UPWARD SLOPE, OR IS CONSTRUCTED OF UNSUITABLE MATERIAL.

DEFICIENCY CRITERIA:

TPR valve has an active leak.

OR

TPR valve is obstructed such that the TPR valve is unable to be fully actuated.

OR

Relief valve discharge piping is damaged (i.e., visibly defective; impacts functionality), capped, has an upward slope, or is constructed of unsuitable material.

HEALTH AND SAFETY DETERMINATION:	Severe	The Severe category includes deficiencies that, if evident in the home or on the property, present a high risk of permanent disability, or serious injury or illness, to a resident; or the physical security or safety of a resident or their property would be seriously compromised.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	30 days	

INSPECTION PROCESS:

OBSERVATION:

- Look at the water heater to identify the TPR valve and relief valve discharge piping.
- Visually inspect to determine if a leak is present.
- Visually inspect to determine if the TPR valve is obstructed such that the TPR valve is unable to be fully actuated.
- Visually inspect to determine if the relief valve discharge piping is damaged (i.e., visibly defective; impacts functionality), capped, has an upward slope, or is constructed of unsuitable material.

REQUEST FOR HELP:

- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.

ACTION:

- None

MORE INFORMATION:

Acceptable relief valve discharge piping materials include:

- Chlorinated polyvinyl chloride (CPVC) plastic pipe/tubing
- Copper pipe
- Cross-linked polyethylene (PEX) plastic tubing
- Ductile iron
- Cross-linked polyethylene/aluminum/high-density
- Polyethylene (PEX-AL-HDPE) pipe
- Polyethylene (PEX-AL-PEX) pipe
- Galvanized steel pipe
- Polyethylene/aluminum/ polyethylene (PE-AL-PE) pipe
- Polypropylene (PP) plastic pipe or tubing
- Stainless steel pipe (type 304 or 316)

DEFICIENCY I – INSIDE: TEMPERATURE PRESSURE RELIEF (TPR) VALVE HAS AN ACTIVE LEAK OR IS OBSTRUCTED OR RELIEF VALVE DISCHARGE PIPING IS DAMAGED, CAPPED, HAS AN UPWARD SLOPE, OR IS CONSTRUCTED OF UNSUITABLE MATERIAL.

DEFICIENCY CRITERIA:

TPR valve has an active leak.

OR

TPR valve is obstructed such that the TPR valve is unable to be fully actuated.

OR

Relief valve discharge piping is damaged (i.e., visibly defective; impacts functionality), capped, has an upward slope, or is constructed of unsuitable material.

HEALTH AND SAFETY DETERMINATION:	Severe	The Severe category includes deficiencies that, if evident in the home or on the property, present a high risk of permanent disability, or serious injury or illness, to a resident; or the physical security or safety of a resident or their property would be seriously compromised.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	30 days	

INSPECTION PROCESS:

OBSERVATION:

- Look at the water heater to identify the TPR valve and relief valve discharge piping.
- Visually inspect to determine if a leak is present.
- Visually inspect to determine if the TPR valve is obstructed such that the TPR valve is unable to be fully actuated.
- Visually inspect to determine if the relief valve discharge piping is damaged (i.e., visibly defective; impacts functionality), capped, has an upward slope, or is constructed of unsuitable material.

REQUEST FOR HELP:

- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the POA.

ACTION:

- None

MORE INFORMATION:

Acceptable relief valve discharge piping materials include:

- Chlorinated polyvinyl chloride (CPVC) plastic pipe/tubing
- Copper pipe
- Cross-linked polyethylene (PEX) plastic tubing
- Ductile iron
- Cross-linked polyethylene/aluminum/high-density
- Polyethylene (PEX-AL-HDPE) pipe
- Polyethylene (PEX-AL-PEX) pipe
- Galvanized steel pipe
- Polyethylene/aluminum/ polyethylene (PE-AL-PE) pipe
- Polypropylene (PP) plastic pipe or tubing
- Stainless steel pipe (type 304 or 316)

DEFICIENCY 1 – OUTSIDE: TEMPERATURE PRESSURE RELIEF (TPR) VALVE HAS AN ACTIVE LEAK OR IS OBSTRUCTED OR RELIEF VALVE DISCHARGE PIPING IS DAMAGED, CAPPED, HAS AN UPWARD SLOPE, OR IS CONSTRUCTED OF UNSUITABLE MATERIAL.

DEFICIENCY CRITERIA:

TPR valve has an active leak.

OR

TPR valve is obstructed such that the TPR valve is unable to be fully actuated.

OR

Relief valve discharge piping is damaged (i.e., visibly defective; impacts functionality), capped, has an upward slope, or is constructed of unsuitable material.

HEALTH AND SAFETY DETERMINATION:	Severe	The Severe category includes deficiencies that, if evident in the home or on the property, present a high risk of permanent disability, or serious injury or illness, to a resident; or the physical security or safety of a resident or their property would be seriously compromised.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	30 days	

INSPECTION PROCESS:

OBSERVATION:

- Look at the water heater to identify the TPR valve and relief valve discharge piping.
- Visually inspect to determine if a leak is present.
- Visually inspect to determine if the TPR valve is obstructed such that the TPR valve is unable to be fully actuated.
- Visually inspect to determine if the relief valve discharge piping is damaged (i.e., visibly defective; impacts functionality), capped, has an upward slope, or is constructed of unsuitable material.

REQUEST FOR HELP:

- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the POA.

ACTION:

- None

MORE INFORMATION:

Acceptable relief valve discharge piping materials include:

- Chlorinated polyvinyl chloride (CPVC) plastic pipe/tubing
- Copper pipe
- Cross-linked polyethylene (PEX) plastic tubing
- Ductile iron
- Cross-linked polyethylene/aluminum/high-density
- Polyethylene (PEX-AL-HDPE) pipe
- Polyethylene (PEX-AL-PEX) pipe
- Galvanized steel pipe
- Polyethylene/aluminum/ polyethylene (PE-AL-PE) pipe
- Polypropylene (PP) plastic pipe or tubing
- Stainless steel pipe (type 304 or 316)

DEFICIENCY 2 – UNIT: NO HOT WATER.

DEFICIENCY CRITERIA:	Hot water does not dispense after the handle is engaged.	
HEALTH AND SAFETY DETERMINATION:	Severe	The Severe category includes deficiencies that, if evident in the home or on the property, present a high risk of permanent disability, or serious injury or illness, to a resident; or the physical security or safety of a resident or their property would be seriously compromised.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	30 days	

INSPECTION PROCESS:

OBSERVATION:	- None
REQUEST FOR HELP:	- None
ACTION:	- Turn the faucet handle to activate hot water. - Feel the water coming out of the faucet to determine if it is heating up.
More Information:	- None

DEFICIENCY 2 – INSIDE: NO HOT WATER.

DEFICIENCY CRITERIA:	Hot water does not dispense after the handle is engaged.	
HEALTH AND SAFETY DETERMINATION:	Low	Deficiencies critical to habitability but not presenting a substantive health or safety risk to resident.
CORRECTION TIMEFRAME:	60 days	
HCV PASS / FAIL:	Pass	
HCV CORRECTION TIMEFRAME:	N/A	

INSPECTION PROCESS:

OBSERVATION:	- None
REQUEST FOR HELP:	- None
ACTION:	- Turn the faucet handle to activate hot water. - Feel the water coming out of the faucet to determine if it is heating up.
More Information:	- None

DEFICIENCY 3 – UNIT: THE RELIEF VALVE DISCHARGE PIPING IS MISSING OR TERMINATES GREATER THAN 6 INCHES OR LESS THAN 2 INCHES FROM WASTE RECEPTOR FLOOD-LEVEL.

DEFICIENCY CRITERIA:	The relief valve discharge piping is missing (i.e., evidence of prior installation, but is now not present or is incomplete). OR The relief valve discharge piping terminates greater than 6 inches or less than 2 inches from waste receptor flood-level.	
HEALTH AND SAFETY DETERMINATION:	Moderate	The Moderate Health and Safety category includes deficiencies that, if evident in the home or on the property, present a moderate risk of an adverse medical event requiring a healthcare visit; cause temporary harm; or if left untreated, cause or worsen a chronic condition that may have long-lasting adverse health effects; or that the physical security or safety of a resident or their property could be compromised.
CORRECTION TIMEFRAME:	30 days	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	30 days	

INSPECTION PROCESS:

OBSERVATION:	- Look at the water heater to determine if the relief valve discharge piping is missing.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.
ACTION:	- Measure the distance between the termination point of the relief valve discharge piping and the waste receptor flood-level.
MORE INFORMATION:	- If the relief valve discharge piping is plumbed through the wall and the inspector is unable to the visually identify the termination point, then do not record as a deficiency.

DEFICIENCY 3 – INSIDE: THE RELIEF VALVE DISCHARGE PIPING IS MISSING OR TERMINATES GREATER THAN 6 INCHES OR LESS THAN 2 INCHES FROM WASTE RECEPTOR FLOOD-LEVEL.

DEFICIENCY CRITERIA:	The relief valve discharge piping is missing (i.e., evidence of prior installation, but is now not present or is incomplete). OR The relief valve discharge piping terminates greater than 6 inches or less than 2 inches from waste receptor flood-level.	
HEALTH AND SAFETY DETERMINATION:	Moderate	The Moderate Health and Safety category includes deficiencies that, if evident in the home or on the property, present a moderate risk of an adverse medical event requiring a healthcare visit; cause temporary harm; or if left untreated, cause or worsen a chronic condition that may have long-lasting adverse health effects; or that the physical security or safety of a resident or their property could be compromised.
CORRECTION TIMEFRAME:	30 days	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	30 days	

INSPECTION PROCESS:

OBSERVATION:	- Look at the water heater to determine if the relief valve discharge piping is missing.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.
ACTION:	- Measure the distance between the termination point of the relief valve discharge piping and the waste receptor flood-level.
MORE INFORMATION:	- If the relief valve discharge piping is plumbed through the wall and the inspector is unable to the visually identify the termination point, then do not record as a deficiency.

DEFICIENCY 3 – OUTSIDE: THE RELIEF VALVE DISCHARGE PIPING IS MISSING OR TERMINATES GREATER THAN 6 INCHES OR LESS THAN 2 INCHES FROM WASTE RECEPTOR FLOOD-LEVEL.

DEFICIENCY CRITERIA:	The relief valve discharge piping is missing (i.e., evidence of prior installation, but is now not present or is incomplete). OR The relief valve discharge piping terminates greater than 6 inches or less than 2 inches from waste receptor flood-level.	
HEALTH AND SAFETY DETERMINATION:	Moderate	The Moderate Health and Safety category includes deficiencies that, if evident in the home or on the property, present a moderate risk of an adverse medical event requiring a healthcare visit; cause temporary harm; or if left untreated, cause or worsen a chronic condition that may have long-lasting adverse health effects; or that the physical security or safety of a resident or their property could be compromised.
CORRECTION TIMEFRAME:	30 days	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	30 days	

INSPECTION PROCESS:

OBSERVATION:	- Look at the water heater to determine if the relief valve discharge piping is missing.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.
ACTION:	- Measure the distance between the termination point of the relief valve discharge piping and the waste receptor flood-level.
MORE INFORMATION:	- If the relief valve discharge piping is plumbed through the wall and the inspector is unable to the visually identify the termination point, then do not record as a deficiency.

DEFICIENCY 4 – UNIT: CHIMNEY OR FLUE PIPING IS BLOCKED, MISALIGNED, OR MISSING.

DEFICIENCY CRITERIA:	Chimney or flue piping is blocked, misaligned, or missing (i.e., evidence of prior installation, but now not present or is incomplete).	
HEALTH AND SAFETY DETERMINATION:	Life-Threatening	The Life-Threatening category includes deficiencies that, if evident in the home or on the property, present a high risk of death to resident.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	24 hours	

INSPECTION PROCESS:

OBSERVATION:	- Look at fuel-fired water heaters to ensure that the flue is present and not negatively pitched. - Look for holes, disconnected pieces, or misalignment at connections along the run of the flue pipe that could allow the venting of dangerous gases into the dwelling. - Check taped joints to ensure that the tape is not covering a void in the flue pipe. - Look at the horizontal flue vent connection and confirm that there is not a negative pitch in the vent. - Verify supports are present on the pipe to maintain clearances and to avoid separation of joints or other damage.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.
ACTION:	- None
More Information:	- Metal tape is not a substitute for substandard flue vent connections.

DEFICIENCY 4 – INSIDE: CHIMNEY OR FLUE PIPING IS BLOCKED, MISALIGNED, OR MISSING.

DEFICIENCY CRITERIA:	Chimney or flue piping is blocked, misaligned, or missing (i.e., evidence of prior installation, but now not present or is incomplete).	
HEALTH AND SAFETY DETERMINATION:	Life-Threatening	The Life-Threatening category includes deficiencies that, if evident in the home or on the property, present a high risk of death to resident.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	24 hours	

INSPECTION PROCESS:

OBSERVATION:	- Look at fuel-fired water heaters to ensure that the flue is present and not negatively pitched. - Look for holes, disconnected pieces, or misalignment at connections along the run of the flue pipe that could allow the venting of dangerous gases into the dwelling. - Check taped joints to ensure that the tape is not covering a void in the flue pipe. - Look at horizontal flue vent connection and confirm that there is not a negative pitch in the vent. - Verify supports are present on the pipe to maintain clearances and to avoid separation of joints or other damage.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.
ACTION:	- None
More Information:	- Metal tape is not a substitute for substandard flue vent connections.

DEFICIENCY 4 – OUTSIDE: CHIMNEY OR FLUE PIPING IS BLOCKED, MISALIGNED, OR MISSING.

DEFICIENCY CRITERIA:	Chimney or flue piping is blocked, misaligned, or missing (i.e., evidence of prior installation, but now not present or is incomplete).	
HEALTH AND SAFETY DETERMINATION:	Life-Threatening	The Life-Threatening category includes deficiencies that, if evident in the home or on the property, present a high risk of death to resident.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	24 hours	

INSPECTION PROCESS:

OBSERVATION:	- Look at fuel-fired water heaters to ensure that the flue is present and not negatively pitched. - Look for holes, disconnected pieces, or misalignment at connections along the run of the flue pipe that could allow the venting of dangerous gases into the dwelling. - Check taped joints to ensure that the tape is not covering a void in the flue pipe. - Look at horizontal flue vent connection and confirm that there is not a negative pitch in the vent. - Verify supports are present on the pipe to maintain clearances and to avoid separation of joints or other damage.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.
ACTION:	- None
More Information:	- Metal tape is not a substitute for substandard flue vent connections.

DEFICIENCY 5 – UNIT: GAS SHUTOFF VALVE IS DAMAGED, MISSING, OR NOT INSTALLED.

DEFICIENCY CRITERIA:	Gas shutoff valve is damaged (i.e., visibly defective; impacts functionality). OR Gas shutoff valve is missing (i.e., evidence of prior installation, but is now not present or is incomplete). OR Gas shutoff valve is not installed (i.e., never installed, but should have been).	
HEALTH AND SAFETY DETERMINATION:	Life-Threatening	The Life-Threatening category includes deficiencies that, if evident in the home or on the property, present a high risk of death to resident.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	24 hours	

INSPECTION PROCESS:

OBSERVATION:	- Look at the water heater to determine if the gas shutoff valve is damaged, missing, or not installed.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the resident or POA.
ACTION:	- None
More Information:	- None

DEFICIENCY 5 – INSIDE: GAS SHUTOFF VALVE IS DAMAGED, MISSING, OR NOT INSTALLED.

DEFICIENCY CRITERIA:	Gas shutoff valve is damaged (i.e., visibly defective; impacts functionality). OR Gas shutoff valve is missing (i.e., evidence of prior installation, but is now not present or is incomplete). OR Gas shutoff valve is not installed (i.e., never installed, but should have been).	
HEALTH AND SAFETY DETERMINATION:	Life-Threatening	The Life-Threatening category includes deficiencies that, if evident in the home or on the property, present a high risk of death to resident.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	24 hours	

INSPECTION PROCESS:

OBSERVATION:	- Look at the water heater to determine if the gas shutoff valve is damaged, missing, or not installed.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the POA.
ACTION:	- None
More Information:	- None

DEFICIENCY 5 – OUTSIDE: GAS SHUTOFF VALVE IS DAMAGED, MISSING, OR NOT INSTALLED.

DEFICIENCY CRITERIA:	Gas shutoff valve is damaged (i.e., visibly defective; impacts functionality). OR Gas shutoff valve is missing (i.e., evidence of prior installation, but is now not present or is incomplete). OR Gas shutoff valve is not installed (i.e., never installed, but should have been).	
HEALTH AND SAFETY DETERMINATION:	Life-Threatening	The Life-Threatening category includes deficiencies that, if evident in the home or on the property, present a high risk of death to resident.
CORRECTION TIMEFRAME:	24 hours	
HCV PASS / FAIL:	Fail	
HCV CORRECTION TIMEFRAME:	24 hours	

INSPECTION PROCESS:

OBSERVATION:	- Look at the water heater to determine if the gas shutoff valve is damaged, missing, or not installed.
REQUEST FOR HELP:	- If the water heater is located behind a locked door or concealed (e.g., behind an access panel), request access from the POA.
ACTION:	- None
More Information:	- None