

Bull Run Services Home Inspection Report

Inspection Date:
7/14/2007

Prepared For:

Prepared By:
Bull Run Services
P.O. BOX 1648
MANASSAS, VA 20108

House Style:
TOWNHOUSE
Approx Age:
97

Occupied:

Selling Agent/Company:
DAN R. ODIO
DRODIO REALTY
Phone:

Inspector:

Report Overview

THE HOUSE IN PERSPECTIVE

This is an attractive home in generally nice condition. Continued maintenance should be performed. The improvements recommended in the report are not considered unusual for a home of this age.

The estimated outside temperature was 85 degrees F.

Dry weather conditions were present at the time of the inspection.

CONVENTIONS USED IN THIS REPORT

For your convenience, the following conventions have been used in this report.

Major Concern: a system or component which is considered significantly deficient or is unsafe. Significant deficiencies need to be corrected and, except for some safety items, are likely to involve significant expense.

Safety Issue: denotes a condition that is unsafe and in need of prompt attention.

Repair: denotes a system or component which is missing or which needs corrective action to assure proper and reliable function.

Improve: denotes improvements which are recommended but not required.

Monitor: denotes a system or component needing further investigation and/or monitoring in order to determine if repairs are necessary.

Please note that those observations listed under “Discretionary Improvements” are not essential repairs, but represent logical long term improvements.

IMPROVEMENT RECOMMENDATION HIGHLIGHTS / SUMMARY

The following is a synopsis of the potentially significant improvements that should be budgeted for over the short term. Other significant improvements, outside the scope of this inspection, may also be necessary. Please refer to the body of this report for further details on these and other recommendations.

- Repair:** Loose or damaged downspouts should be repaired promptly.
- Repair:** Localized pointing of deteriorated mortar between the bricks of the exterior walls is advisable to prevent further deterioration.
- Repair:** Trees and shrubs should be trimmed away from the exterior of the house to reduce the chance of siding or wood trim damage.
- Repair:** The exterior wood requires painting and caulking.
- Repair:** Localized wood rot is noted on the window and/or door trim. Repairs should be made in conjunction with painting.
- Safety Issue:** Today’s support and attachment standards typically call for proper footings, 6X6 posts and ½ bolts securing the deck to the beam and house. Not all of these elements appear to be present. Consider upgrading to current standards.
- Repair, Safety Issue:** A railing should be provided for the rear steps.
- Repair, Safety Issue:** The openings in the deck railing are large enough to allow a child to fall through. It is recommended that this be corrected for improved child safety.
- Repair:** Vines growing on exterior walls should be kept trimmed away from siding, window trims, and the eaves to reduce risk of insect and water damage.
- Repair:** Tree branches should be trimmed away from the house.
- Repair:** Abandoned wiring in the furnace room and sun room should be replaced or appropriately terminated.
- Repair:** The installation of smoke detectors is required on each level.

- Repair:** The temperature drop measured across the evaporator coil of the heat pump is greater than normal. This indicates that air flow across the evaporator coil is too low. Low air flow could be the result of a dirty filter, dirty or obstructed evaporator coil fins, or insufficient blower and/or ductwork sizing. This condition can lead to ice build-up on the coil. A qualified heating and cooling technician should be consulted to further evaluate this condition and the remedies available.
- Repair:** The discharge piping serving the Temperature and Pressure Relief (TPR) Valve for the water heater should terminate not less than 6 inches or more than 24 inches above the floor.
- Repair, Safety Issue:** The water heater venting system shows evidence of exhaust “spillage”. *This is a serious condition that could be a health threat to the occupants of the home.* This condition should be addressed promptly.
- Repair:** The sink in the lower bathroom should be better secured.
- Repair:** The basement shower head is leaking at the fitting.
- Repair:** The basement kitchen sprayer is missing a part to work properly.
- Repair:** Window hardware will not lock in the sun room.
- Repair:** The light in the living room and upper bathroom is inoperative. If the bulbs are not blown, the circuit should be repaired.
- Repair:** The ceiling fan was not running at the time of the inspection.
- Repair, Safety Issue:** The height of the stairway railing may not be sufficient to prevent a person from toppling over the railing. It is recommended that this condition be altered for improved safety.
- Repair, Safety Issue:** For improved safety, it is recommended that a handrail be provided for the stairway.
- Repair:** A ground fault circuit interrupter (GFCI) outlet in the basement bathroom did not respond correctly to testing during the inspection. This receptacle should be replaced.
- Repair:** Ungrounded 3-prong outlets in the lower kitchen should be repaired. In some cases a ground wire may be present in the electrical box and simply needs to be connected.
- Repair:** A burner on the basement gas cook top is inoperative.
- Repair:** The refrigerator icemaker is inoperative.
- Repair:** The clothes washer is excessively noisy.
- Repair:** The clothes dryer exhaust vent pipe should be improved to metal.
- Repair:** An outlet has reversed polarity (i.e. it is wired backwards). This outlet and the circuit should be investigated and repaired as necessary.
- Repair:** The installation of the distribution wiring serving the outlet hanging on the fence is non-standard. It is suspected that installation was performed by an amateur, rather than a licensed electrician. This wiring and outlet should be properly wired and installed by a licensed electrician.
- Repair:** The springs for the dishwasher door require repair.

THE SCOPE OF THE INSPECTION

All components designated for inspection in the ASHI Standards of Practice are inspected, except as may be noted in the “Limitations of Inspection” sections within this report.

It is the goal of the inspection to put a home buyer in a better position to make a buying decision. Not all improvements will be identified during this inspection. Unexpected repairs should still be anticipated. The inspection should not be considered a guarantee or warranty of any kind.

Please refer to the pre-inspection contract for a full explanation of the scope of the inspection.

Structure

DESCRIPTION OF STRUCTURE

Foundation: Not Visible Basement Configuration 100% Of Foundation Was Not Visible
Columns: Not Visible
Floor Structure: Wood Joist
Wall Structure: Wood Frame

STRUCTURE OBSERVATIONS

General Comments

As is typical of homes of this age, the building exhibits many unusual conditions. Many structural repairs and improvements are either needed or desirable. In practice, however, many homes of this type are improved only on an as needed basis. Many less than ideal conditions are simply tolerated. Old timbers, for example, may exhibit evidence of rot and prior insect damage. These timbers could be replaced. Many owners undertake these costly repairs only if the timber fails or is substantially weakened. In this report repairs will be recommended only where in the inspector's opinion they are critical.

RECOMMENDATIONS / OBSERVATIONS

LIMITATIONS OF STRUCTURE INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Structural components concealed behind finished surfaces could not be inspected.
- Only a representative sampling of visible structural components were inspected.
- Furniture and/or storage restricted access to some structural components.
- Engineering or architectural services such as calculation of structural capacities, adequacy, or integrity are not part of a home inspection.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Roofing

DESCRIPTION OF ROOFING

Roof Ventilation: None Visible for Flat Roof
Roof Drainage System: Galvanized Steel Downspouts discharge above grade
Method of Inspection:

ROOFING OBSERVATIONS

RECOMMENDATIONS / OBSERVATIONS

Gutters & Downspouts

- Repair:** Loose or damaged downspouts should be repaired promptly.

LIMITATIONS OF ROOFING INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Not all of the underside of the roof sheathing is inspected for evidence of leaks.
- Evidence of prior leaks may be disguised by interior finishes.
- Estimates of remaining roof life are approximations only and do not preclude the possibility of leakage. Leakage can develop at any time and may depend on rain intensity, wind direction, ice build up, and other factors.
- Antennae, chimney/flue interiors which are not readily accessible are not inspected and could require repair.
- Roof inspection may be limited by access, condition, weather, or other safety concerns.
- Some sections of the roofing surface were concealed from view.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Exterior

DESCRIPTION OF EXTERIOR

Wall Covering:	<input type="checkbox"/> Brick
Eaves, Soffits, And Fascias:	<input type="checkbox"/> Wood
Exterior Doors:	<input type="checkbox"/> Metal
Window/Door Frames and Trim:	<input type="checkbox"/> Wood <input type="checkbox"/> Vinyl-Covered
Entry Walkways And Patios:	<input type="checkbox"/> Concrete
Porches, Decks, Steps, Railings:	<input type="checkbox"/> Concrete <input type="checkbox"/> Treated Wood
Surface Drainage:	<input type="checkbox"/> Level Grade

EXTERIOR OBSERVATIONS

RECOMMENDATIONS / OBSERVATIONS

Exterior Walls

- Repair:** Localized pointing of deteriorated mortar between the bricks of the exterior walls is advisable to prevent further deterioration.
- Repair:** Trees and shrubs should be trimmed away from the exterior of the house to reduce the chance of siding or wood trim damage.

Windows

- Repair:** The exterior wood requires painting and caulking.
- Repair:** Localized wood rot is noted on the window and/or door trim. Repairs should be made in conjunction with painting.

Lot Drainage

- Improve:** The grading should be improved to promote the flow of storm water away from the house. This can often be accomplished by the addition of top soil. The ground should slope away from the house at a rate of one inch per foot for at least the first ten feet. At least eight (8) inches of clearance should be maintained between soil level and the bottom of exterior wall siding.

Deck

- Safety Issue:** Today's support and attachment standards typically call for proper footings, 6X6 posts and ½ bolts securing the deck to the beam and house. Not all of these elements appear to be present. Consider upgrading to current standards.
- Repair, Safety Issue:** A railing should be provided for the rear steps.
- Repair, Safety Issue:** The openings in the deck railing are large enough to allow a child to fall through. It is recommended that this be corrected for improved child safety.

Landscaping

- Repair:** Vines growing on exterior walls should be kept trimmed away from siding, window trims, and the eaves to reduce risk of insect and water damage.

Exterior Eaves

- Repair:** Tree branches should be trimmed away from the house.

LIMITATIONS OF EXTERIOR INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- A representative sample of exterior components was inspected rather than every occurrence of components.
- The inspection does not include an assessment of geological, geotechnical, or hydrological conditions, or environmental hazards.

- Screening, shutters, awnings, or similar seasonal accessories, fences, recreational facilities, outbuildings, seawalls, break-walls, docks, erosion control and earth stabilization measures are not inspected unless specifically agreed-upon and documented in this report.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Electrical

DESCRIPTION OF ELECTRICAL

Size of Electrical Service:	<input type="checkbox"/> 120/240 Volt Main Service - Service Size: 200 Amp
Service Drop:	<input type="checkbox"/> Overhead
Service Entrance Conductors:	<input type="checkbox"/> Aluminum
Service Equipment & Main Disconnects:	<input type="checkbox"/> Main Service Rating 200 Amps <input type="checkbox"/> Breakers <input type="checkbox"/> Located: Panel
Service Grounding:	<input type="checkbox"/> Ground Connection Not Visible
Service Panel & Overcurrent Protection:	<input type="checkbox"/> Panel Rating: 200 Amp <input type="checkbox"/> Breakers <input type="checkbox"/> Located: Laundry room
Distribution Wiring:	<input type="checkbox"/> Copper <input type="checkbox"/> Aluminum-Multi-Strand
Wiring Method:	<input type="checkbox"/> Non-Metallic Cable "Romex"
Switches & Receptacles:	<input type="checkbox"/> Grounded
Ground Fault Circuit Interrupters:	<input type="checkbox"/> None Found
Smoke Detectors:	<input type="checkbox"/> Present

ELECTRICAL OBSERVATIONS

RECOMMENDATIONS / OBSERVATIONS

Distribution Wiring

- Repair:** Abandoned wiring in the furnace room and sun room should be replaced or appropriately terminated.

Smoke Detectors

- Repair:** The installation of smoke detectors is required on each level.

Outlets

- Repair:** An outlet has reversed polarity (i.e. it is wired backwards). This outlet and the circuit should be investigated and repaired as necessary.
- Repair:** The installation of the distribution wiring serving the outlet hanging on the fence is non-standard. It is suspected that installation was performed by an amateur, rather than a licensed electrician. This wiring and outlet should be properly wired and installed by a licensed electrician.

LIMITATIONS OF ELECTRICAL INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Electrical components concealed behind finished surfaces are not inspected.
- Only a representative sampling of outlets and light fixtures were tested.
- Furniture and/or storage restricted access to some electrical components which may not be inspected.
- The inspection does not include remote control devices, alarm systems and components, low voltage wiring, systems, and components, ancillary wiring, systems, and other components which are not part of the primary electrical power distribution system.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Cooling / Heat Pumps

DESCRIPTION OF COOLING / HEAT PUMPS

Energy Source: Electricity 240 Volt Power Supply
Central System Type: Air Source Heat Pump System Manufacturer: Ruud Capacity 2.5 ton
Age of outside unit: 5
Other Components: Air Handler/Fan

COOLING / HEAT PUMPS OBSERVATIONS

RECOMMENDATIONS / OBSERVATIONS

Heat Pump

- Repair:** The temperature drop measured across the evaporator coil of the heat pump is greater than normal. This indicates that air flow across the evaporator coil is too low. Low air flow could be the result of a dirty filter, dirty or obstructed evaporator coil fins, or insufficient blower and/or ductwork sizing. This condition can lead to ice build-up on the coil. A qualified heating and cooling technician should be consulted to further evaluate this condition and the remedies available.
- Improve:** The heat pump system requires servicing.
- Improve:** The dirty air filter should be replaced.

Discretionary Improvements

An electronic air cleaner could be added to the system, if desired.

LIMITATIONS OF COOLING / HEAT PUMPS INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Window mounted air conditioning units are not inspected.
- The cooling supply adequacy or distribution balance are not inspected.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Plumbing

DESCRIPTION OF PLUMBING

Water Supply Source: Public Water Supply
Main Water Valve Location: Not Found
Interior Supply Piping: Copper Public Sewer System
Drain, Waste, & Vent Piping: Cast Iron
Water Heater: Gas Approximate Capacity (in gallons): 40 Manufacturer: GE Date Manufactured: 2000

PLUMBING OBSERVATIONS

RECOMMENDATIONS / OBSERVATIONS

Water Heater

- Repair:** The discharge piping serving the Temperature and Pressure Relief (TPR) Valve for the water heater should terminate not less than 6 inches or more than 24 inches above the floor.
- Repair, Safety Issue:** The water heater venting system shows evidence of exhaust “spillage”. *This is a serious condition that could be a health threat to the occupants of the home.* This condition should be addressed promptly.

Fixtures

- Improve:** Cracked, deteriorated and/or missing bathtub enclosure grout and caulk should be replaced.
- Repair:** The sink in the lower bathroom should be better secured.
- Repair:** The basement shower head is leaking at the fitting.
- Repair:** The basement kitchen sprayer is missing a part to work properly.

LIMITATIONS OF PLUMBING INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Portions of the plumbing system concealed by finishes and/or storage (below sinks, etc.), below the structure, or beneath the ground surface are not inspected.
- Water quantity and water quality are not tested unless explicitly contracted-for and discussed in this or a separate report.
- Clothes washing machine connections are not inspected.
- Interiors of flues or chimneys which are not readily accessible are not inspected.
- Water conditioning systems, solar water heaters, fire and lawn sprinkler systems, and private waste disposal systems are not inspected unless explicitly contracted-for and discussed in this or a separate report.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Interior

DESCRIPTION OF INTERIOR

Wall And Ceiling Materials:	<input type="checkbox"/> Plaster
Floor Surfaces:	<input type="checkbox"/> Carpet <input type="checkbox"/> Tile <input type="checkbox"/> Wood
Window Type(s) & Glazing:	<input type="checkbox"/> Double/Single Hung <input type="checkbox"/> Sliders <input type="checkbox"/> Double Glazed
Doors:	<input type="checkbox"/> Wood-Hollow Core

INTERIOR OBSERVATIONS

RECOMMENDATIONS / OBSERVATIONS

Wall / Ceiling Finishes

- Monitor:** Typical drywall flaws were observed.

Floors

- Monitor:** Floor slopes are apparent.

Windows

- Repair:** Window hardware will not lock in the sun room.

Lights

- Repair:** The light in the living room and upper bathroom is inoperative. If the bulbs are not blown, the circuit should be repaired.
- Repair:** The ceiling fan was not running at the time of the inspection.

Stairways

- Repair, Safety Issue:** The height of the stairway railing may not be sufficient to prevent a person from toppling over the railing. It is recommended that this condition be altered for improved safety.
- Repair, Safety Issue:** For improved safety, it is recommended that a handrail be provided for the stairway.

Basement Leakage

- Monitor:** No evidence of moisture penetration was visible in the basement at the time of the inspection. ***It should be understood that it is impossible to predict whether moisture penetration will pose a problem in the future.*** The vast majority of basement leakage problems are the result of insufficient control of storm water at the surface. The ground around the house should be sloped to encourage water to flow away from the foundation. Gutters and downspouts should act to collect roof water and drain the water at least five (5) feet from the foundation or into a functional storm sewer. Downspouts that are clogged or broken below grade level, or that discharge too close to the foundation are the most common source of basement leakage. Please refer to the Roofing and Exterior sections of the report for more information.

In the event that basement leakage problems are experienced, lot and roof drainage improvements should be undertaken as a first step. Please beware of contractors who recommend expensive solutions. Excavation, damp-proofing and/or the installation of drainage tiles should be a last resort. In some cases, however, it is necessary. Your plans for using the basement may also influence the approach taken to curing any dampness that is experienced.

Outlets

- Repair:** A ground fault circuit interrupter (GFCI) outlet in the basement bathroom did not respond correctly to testing during the inspection. This receptacle should be replaced.
- Repair:** Ungrounded 3-prong outlets in the lower kitchen should be repaired. In some cases a ground wire may be present in the electrical box and simply needs to be connected.

LIMITATIONS OF INTERIOR INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- Furniture, storage, appliances and/or wall hangings are not moved to permit inspection and may block defects.
- Carpeting, window treatments, central vacuum systems, household appliances, recreational facilities, paint, wallpaper, and other finish treatments are not inspected.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Appliances

DESCRIPTION OF APPLIANCES

Appliances Tested: Built-in Electric Oven Gas Cooktop Dishwasher Waste Disposer Refrigerator Clothes Washer Clothes Dryer

Laundry Facility: 240 Volt Circuit for Dryer Dryer Vented to Building Exterior 120 Volt Circuit for Washer Hot and Cold Water Supply for Washer Waste Standpipe for Washer

Other Components Tested: Kitchen Exhaust Hood

APPLIANCES OBSERVATIONS

RECOMMENDATIONS / OBSERVATIONS

Gas Cook top

Repair: A burner on the gas cook top is inoperative.

Refrigerator

Repair: The refrigerator icemaker is inoperative.

Clothes Washer

Repair: The clothes washer is excessively noisy.

Clothes Dryer

Repair: The clothes dryer exhaust vent pipe should be improved to metal.

Dishwasher

Repair: The springs for the dishwasher door require repair.

LIMITATIONS OF APPLIANCES INSPECTION

As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- Thermostats, timers and other specialized features and controls are not tested.
- The temperature calibration, functionality of timers, effectiveness, efficiency and overall performance of appliances is outside the scope of this inspection.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Maintenance Advice

UPON TAKING OWNERSHIP

After taking possession of a new home, there are some maintenance and safety issues that should be addressed immediately. The following checklist should help you undertake these improvements:

- Change the locks on all exterior entrances, for improved security.
- Check that all windows and doors are secure. Improve window hardware as necessary. Security rods can be added to sliding windows and doors. Consideration could also be given to a security system.
- Install smoke detectors on each level of the home. Ensure that there is a smoke detector outside all sleeping areas. Replace batteries on any existing smoke detectors and test them. Make a note to replace batteries again in one year.
- Create a plan of action in the event of a fire in your home. Ensure that there is an operable window or door in every room of the house. Consult with your local fire department regarding fire safety issues and what to do in the event of a fire.
- Examine driveways and walkways for trip hazards. Undertake repairs where necessary.
- Examine the interior of the home for trip hazards. Loose or torn carpeting and flooring should be repaired.
- Undertake improvements to all stairways, decks, porches and landings where there is a risk of falling or stumbling.
- Review your home inspection report for any items that require immediate improvement or further investigation. Address these areas as required.
- Install rain caps and vermin screens on all chimney flues, as necessary.
- Investigate the location of the main shut-offs for the plumbing, heating and electrical systems. If you attended the home inspection, these items would have been pointed out to you.

REGULAR MAINTENANCE

EVERY MONTH

- Check that fire extinguisher(s) are fully charged. Re-charge if necessary.
- Examine heating/cooling air filters and replace or clean as necessary.
- Inspect and clean humidifiers and electronic air cleaners.
- If the house has hot water heating, bleed radiator valves.
- Clean gutters and downspouts. Ensure that downspouts are secure, and that the discharge of the downspouts is appropriate. Remove debris from window wells.
- Carefully inspect the condition of shower enclosures. Repair or replace deteriorated grout and caulk. Ensure that water is not escaping the enclosure during showering. Check below all plumbing fixtures for evidence of leakage.
- Repair or replace leaking faucets or shower heads.
- Secure loose toilets, or repair flush mechanisms that become troublesome.

SPRING AND FALL

- Examine the roof for evidence of damage to roof coverings, flashings and chimneys.
- Look in the attic (if accessible) to ensure that roof vents are not obstructed. Check for evidence of leakage, condensation or vermin activity. Level out insulation if needed.
- Trim back tree branches and shrubs to ensure that they are not in contact with the house.
- Inspect the exterior walls and foundation for evidence of damage, cracking or movement. Watch for bird nests or other vermin or insect activity.
- Survey the basement and/or crawl space walls for evidence of moisture seepage.
- Look at overhead wires coming to the house. They should be secure and clear of trees or other obstructions.
- Ensure that the grade of the land around the house encourages water to flow away from the foundation.

- ☐ Inspect all driveways, walkways, decks, porches, and landscape components for evidence of deterioration, movement or safety hazards.
- ☐ Clean windows and test their operation. Improve caulking and weather-stripping as necessary. Watch for evidence of rot in wood window frames. Paint and repair window sills and frames as necessary.
- ☐ Test all ground fault circuit interrupter (GFCI) devices, as identified in the inspection report.
- ☐ Shut off isolating valves for exterior hose bibs in the fall, if below freezing temperatures are anticipated.
- ☐ Test the Temperature and Pressure Relief (TPR) Valve on water heaters.
- ☐ Inspect for evidence of wood boring insect activity. Eliminate any wood/soil contact around the perimeter of the home.
- ☐ Test the overhead garage door opener, to ensure that the auto-reverse mechanism is responding properly. Clean and lubricate hinges, rollers and tracks on overhead doors.
- ☐ Replace or clean exhaust hood filters.
- ☐ Clean, inspect and/or service all appliances as per the manufacturer's recommendations.

ANNUALLY

- ☐ Replace smoke detector batteries.
- ☐ Have the heating, cooling and water heater systems cleaned and serviced.
- ☐ Have chimneys inspected and cleaned. Ensure that rain caps and vermin screens are secure.
- ☐ Examine the electrical panels, wiring and electrical components for evidence of overheating. Ensure that all components are secure. Flip the breakers on and off to ensure that they are not sticky.
- ☐ If the house utilizes a well, check and service the pump and holding tank. Have the water quality tested. If the property has a septic system, have the tank inspected (and pumped as needed).
- ☐ If your home is in an area prone to wood destroying insects (termites, carpenter ants, etc.), have the home inspected by a licensed specialist. Preventative treatments may be recommended in some cases.

PREVENTION IS THE BEST APPROACH

Although we've heard it many times, nothing could be more true than the old cliché "an ounce of prevention is worth a pound of cure." Preventative maintenance is the best way to keep your house in great shape. It also reduces the risk of unexpected repairs and improves the odds of selling your house at fair market value, when the time comes.

Please feel free to contact our office should you have any questions regarding the operation or maintenance of your home. Enjoy your home!

Information About Radon



EPA RADON RISK INFORMATION

Fifty-five percent of our exposure to natural sources of radiation usually comes from radon. Radon is a colorless, tasteless, and odorless gas that comes from the decay of uranium found in nearly all soils. Levels of radon vary throughout the country. Radon is found all over the United States and scientists estimate that nearly one out of every 15 homes in this country has radon levels above recommended action levels.

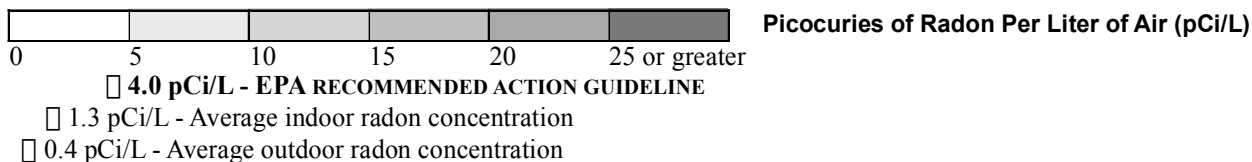
Radon usually moves from the ground up and migrates into homes and other buildings through cracks and other holes in their foundations. The buildings trap radon inside, where it accumulates and may become a health hazard if the building is not properly ventilated.

When you breathe air containing a large amount of radon, the radiation can damage your lungs and eventually cause lung cancer. Scientists believe that radon is the second leading cause of lung cancer in the United States. It is estimated that 7,000 to 30,000 Americans die each year from radon-induced lung cancer. Only smoking causes more lung cancer deaths and

smokers exposed to radon are at higher risk than nonsmokers. Testing your home is the only way to know if you and your family are at risk from radon.

Testing for Radon.

Should you have your home tested, use the chart below to compare your radon test results with the EPA guideline. The higher a home's radon level, the greater the health risk to you and your family.



The U.S. Environmental Protection Agency (EPA) and the Surgeon General strongly recommend taking further action when the home's radon test results are 4.0 pCi/L or greater. The concentration of radon in the home is measured in picocuries per liter of air (pCi/L). Radon levels less than 4.0 pCi/L still pose some risk and in many cases may be reduced. If the radon level in your home is between 2.0 and 4.0 pCi/L, EPA recommends that you **consider** fixing your home. The national average indoor radon level is about 1.3 pCi/L. The higher a home's radon level, the greater the health risk to you and your family. Smokers and former smokers are at especially high risk. There are straightforward ways to fix a home's radon problem that are not too costly. Even homes with very high levels can be reduced to below 4.0 pCi/L. EPA recommends that you use an EPA or State-approved contractor trained to fix radon problems.

What do radon test results mean?

If your radon level is **below 4 pCi/L**, you do not need to take action.

If your radon level is **4 pCi/L or greater**, use the following charts to determine what your test results mean. Depending upon the type of test(s) you took, you will have to either test again or fix the home.

NOTE: All tests should meet EPA technical protocols.

Chart 1: Radon Test Conducted Outside Real Estate Transaction

Type of Test(s)	If Radon Level Is 4.0 pCi/L or Greater
Single Short-Term Test	Test Again*
Average of Short-Term Tests	Fix The Home
One Long-Term Test	Fix The Home

* If your first short term test is several times greater than 4.0 pCi/L - for example, about 10.0 pCi/L or higher - you should take a second short-term test immediately.

Chart 1: Radon Test Conducted During a Real Estate Transaction (Buying or Selling a Home)

Type of Test(s)	If Radon Level Is 4.0 pCi/L or Greater
Single Active Short-Term Test (this test requires a machine)	Fix The Home
Average of 2 Passive Short-Term Tests* (these tests do not require machines)	Fix The Home
One Long-Term Test	Fix The Home

* Use two passive short-term tests and average the results.

What should I do after testing?

This confidential report is prepared exclusively for

If your radon level is 4.0 pCi/L or greater, you can call your State radon office to obtain more information, including a list of EPA or State-approved radon contractors who can fix or can help you develop a plan for fixing the radon problem. Reduction methods can be as simple as sealing cracks in floors and walls or as complex as installing systems that use pipes and fans to draw radon out of the building.

EPA has a National Radon Program to inform the public about radon risks, train radon mitigation contractors, provide grants for state radon programs, and develop standards for radon-resistant buildings. EPA works with health organizations, state radon programs, and other federal agencies to make the program as effective as possible.

For more information about radon, its risks and what you can do to protect yourself, call 1-800-SOS-RADON and request a free copy of EPA's *A Citizen's Guide to Radon*. You may also call the Radon Fix-It Line at 1-800-644-6999 between noon and 8pm Monday through Friday, EST/EDT, for information and assistance. This toll-free line is operated by Consumer Federation of America, a nonprofit consumer organization.

Information About Carbon Monoxide

What is carbon monoxide (CO) and how is it produced in the home?

CO is a colorless, odorless, toxic gas. It is produced by the incomplete combustion of solid, liquid and gaseous fuels. Appliances fueled with gas, oil, kerosene, or wood may produce CO. If such appliances are not installed, maintained, and used properly, CO may accumulate to dangerous levels.

What are the symptoms of CO poisoning and why are these symptoms particularly dangerous?

Breathing CO causes symptoms such as headaches, dizziness, and weakness in healthy people. CO also causes sleepiness, nausea, vomiting, confusion and disorientation. At very high levels, it causes loss of consciousness and death.

This is particularly dangerous because CO effects often are not recognized. CO is odorless and some of the symptoms of CO poisoning are similar to the flu or other common illnesses.

Are some people more affected by exposure to CO than others?

CO exposures especially affect unborn babies, infants, and people with anemia or a history of heart disease. Breathing low levels of the chemical can cause fatigue and increase chest pain in people with chronic heart disease.

How many people die from CO poisoning each year?

In 1989, the most recent year for which statistics are available, there were about 220 deaths from CO poisoning associated with gas-fired appliances, about 30 CO deaths associated with solid-fueled appliances (including charcoal grills), and about 45 CO deaths associated with liquid-fueled heaters.

How many people are poisoned from CO each year?

Nearly 5,000 people in the United States are treated in hospital emergency rooms for CO poisoning; this number is believed to be an underestimate because many people with CO symptoms mistake the symptoms for the flu or are misdiagnosed and never get treated.

How can production of dangerous levels of CO be prevented?

Dangerous levels of CO can be prevented by proper appliance maintenance, installation, and use:

Maintenance:

- A qualified service technician should check your home's central and room heating appliances (including water heaters and gas dryers) annually. The technician should look at the electrical and mechanical components of appliances, such as thermostat controls and automatic safety devices.
- Chimneys and flues should be checked for blockages, corrosion, and loose connections.
- Individual appliances should be serviced regularly. Kerosene and gas space heaters (vented and unvented) should be cleaned and inspected to insure proper operation.
- CPSC recommends finding a reputable service company in the phone book or asking your utility company to suggest a qualified service technician.

Installation:

- Proper installation is critical to the safe operation of combustion appliances. All new appliances have installation instructions that should be followed exactly. Local building codes should be followed as well.

- Vented appliances should be vented properly, according to manufacturer's instructions.
- Adequate combustion air should be provided to assure complete combustion.
- All combustion appliances should be installed by professionals.

Appliance Use:

Follow manufacturer's directions for safe operation.

- Make sure the room where an unvented gas or kerosene space heater is used is well ventilated; doors leading to another room should be open to insure proper ventilation.
- Never use an unvented combustion heater overnight or in a room where you are sleeping.

Are there signs that might indicate improper appliance operation?

Yes, these are:

- Decreasing hot water supply
- Furnace unable to heat house or runs constantly
- Sooting, especially on appliances
- Unfamiliar or burning odor
- Increased condensation inside windows

Are there visible signs that might indicate a CO problem?

Yes, these are:

- Improper connections on vents and chimneys
- Visible rust or stains on vents and chimneys
- An appliance that makes unusual sounds or emits an unusual smell
- An appliance that keeps shutting off (Many new appliances have safety components attached that prevent operation if an unsafe condition exists. If an appliance stops operating, it may be because a safety device is preventing a dangerous condition. Therefore, don't try to operate an appliance that keeps shutting off; call a service person instead.)

Are there other ways to prevent CO poisoning?

Yes, these are:

- Never use a range or oven to heat the living areas of the home
- Never use a charcoal grill or hibachi in the home
- Never keep a car running in an attached garage

Can CO be detected?

Yes, CO can be detected with CO detectors that meet the requirements of Underwriters Laboratories (UL) standard 2034.

Since the toxic effect of CO is dependent upon both CO concentration and length of exposure, long-term exposure to a low concentration can produce effects similar to short term exposure to a high concentration.

Detectors should measure both high CO concentrations over short periods of time and low CO concentrations over long periods of time - the effects of CO can be cumulative over time. The detectors also sound an alarm before the level of CO in a person's blood would become crippling. CO detectors that meet the UL 2034 standard currently cost between \$35 and \$80.

Where should the detector be installed?

CO gases distribute evenly and fairly quickly throughout the house; therefore, a CO detector should be installed on the wall or ceiling in sleeping area/s but outside individual bedrooms to alert occupants who are sleeping.

Aren't there safety devices already on some appliances? And if so, why is a CO detector needed?

Vent safety shutoff systems have been required on furnaces and vented heaters since the late 1980s. They protect against blocked or disconnected vents or chimneys. Oxygen depletion sensors (ODS) have also been installed on unvented gas space heaters since the 1980s. ODS protect against the production of CO caused by insufficient oxygen for proper combustion. These devices (ODSs and vent safety shutoff systems) are not a substitute for regular professional servicing, and many older, potentially CO-producing appliances may not have such devices. Therefore, a CO detector is still important in any home as another line of defense.

Are there other CO detectors that are less expensive?

There are inexpensive cardboard or plastic detectors that change color and do not sound an alarm and have a limited useful life. They require the occupant to look at the device to determine if CO is present. CO concentrations can build up rapidly while occupants are asleep, and these devices would not sound an alarm to wake them.

For additional information, write to the U.S. Consumer Product Safety Commission, Washington, D.C., 20207, call the toll-free hotline at 1-800-638-2772, or visit the website <http://www.cpsc.gov>

Information About Lead Based Paint

Lead-based paint is hazardous to your health.

Lead-based paint is a major source of lead poisoning for children and can also affect adults. In children, lead poisoning can cause irreversible brain damage and can impair mental functioning. It can retard mental and physical development and reduce attention span. It can also retard fetal development even at extremely low levels of lead. In adults, it can cause irritability, poor muscle coordination, and nerve damage to the sense organs and nerves controlling the body. Lead poisoning may also cause problems with reproduction (such as a decreased sperm count). It may also increase blood pressure. Thus, young children, fetuses, infants, and adults with high blood pressure are the most vulnerable to the effects of lead.

Children should be screened for lead poisoning.

In communities where the houses are old and deteriorating, take advantage of available screening programs offered by local health departments and have children checked regularly to see if they are suffering from lead poisoning. Because the early symptoms of lead poisoning are easy to confuse with other illnesses, it is difficult to diagnose lead poisoning without medical testing. Early symptoms may include persistent tiredness, irritability, loss of appetite, stomach discomfort, reduced attention span, insomnia, and constipation. Failure to treat children in the early stages can cause long-term or permanent health damage.

The current blood lead level which defines lead poisoning is 10 micrograms of lead per deciliter of blood. However, since poisoning may occur at lower levels than previously thought, various federal agencies are considering whether this level should be lowered further so that lead poisoning prevention programs will have the latest information on testing children for lead poisoning.

Consumers can be exposed to lead from paint.

Eating paint chips is one way young children are exposed to lead. It is not the most common way that consumers, in general, are exposed to lead. Ingesting and inhaling lead dust that is created as lead-based paint "chalks," chips, or peels from deteriorated surfaces can expose consumers to lead. Walking on small paint chips found on the floor, or opening and closing a painted frame window, can also create lead dust. Other sources of lead include deposits that may be present in homes after years of use of leaded gasoline and from industrial sources like smelting. Consumers can also generate lead dust by sanding lead-based paint or by scraping or heating lead-based paint.

Lead dust can settle on floors, walls, and furniture. Under these conditions, children can ingest lead dust from hand-to-mouth contact or in food. Settled lead dust can re-enter the air through cleaning, such as sweeping or vacuuming, or by movement of people throughout the house.

Older homes may contain lead based paint.

Lead was used as a pigment and drying agent in "alkyd" oil based paint. "Latex" water based paints generally have not contained lead. About two-thirds of the homes built before 1940 and one-half of the homes built from 1940 to 1960 contain heavily-leaded paint. Some homes built after 1960 also contain heavily-leaded paint. It may be on any interior or exterior surface, particularly on woodwork, doors, and windows. In 1978, the U.S. Consumer Product Safety Commission lowered the legal maximum lead content in most kinds of paint to 0.06% (a trace amount). Consider having the paint in homes constructed before the 1980s tested for lead before renovating or if the paint or underlying surface is deteriorating. This is particularly important if infants, children, or pregnant women are present.

Consumers can have paint tested for lead.

There are do-it-yourself kits available. However, the U.S. Consumer Product Safety Commission has not evaluated any of these kits. One home test kit uses sodium sulfide solution. This procedure requires you to place a drop of sodium sulfide solution on a paint chip. The paint chip slowly turns darker if lead is present. There are problems with this test, however. Other metals may cause false positive results, and resins in the paint may prevent the sulfide from causing the paint chip to

change color. Thus, the presence of lead may not be correctly indicated. In addition the darkening may be detected only on very light-colored paint.

Another in-home test requires a trained professional who can operate the equipment safely. This test uses X-ray fluorescence to determine if the paint contains lead. Although the test can be done in your home, it should be done only by professionals trained by the equipment manufacturer or who have passed a state or local government training course, since the equipment contains radioactive materials. In addition, in some tests, the method has not been reliable.

Consumers may choose to have a testing laboratory test a paint sample for lead. Lab testing is considered more reliable than other methods. Lab tests may cost from \$20 to \$50 per sample. To have the lab test for lead paint, consumers may:

- Get sample containers from the lab or use re-sealable plastic bags. Label the containers or bags with the consumer's name and the location in the house from which each paint sample was taken. Several samples should be taken from each affected room (see HUD Guidelines discussed below).
- Use a sharp knife to cut through the edges of the sample paint. The lab should tell you the size of the sample needed. It will probably be about 2 inches by 2 inches.
- Lift off the paint with a clean putty knife and put it into the container. Be sure to take a sample of all layers of paint, since only the lower layers may contain lead. Do not include any of the underlying wood, plaster, metal, and brick.
- Wipe the surface and any paint dust with a wet cloth or paper towel and discard the cloth or towel.

The U.S. Department of Housing and Urban Development (HUD) recommends that action to reduce exposure should be taken when the lead in paint is greater than 0.5% by lab testing or greater than 1.0 milligrams per square centimeter by X-ray fluorescence. Action is especially important when paint is deteriorating or when infants, children, or pregnant women are present. Consumers can reduce exposure to lead-based paint.

If you have lead-based paint, you should take steps to reduce your exposure to lead.

You can:

1. Have the painted item replaced.

You can replace a door or other easily removed item if you can do it without creating lead dust. Items that are difficult to remove should be replaced by professionals who will control and contain lead dust.

2. Cover the lead-based paint.

You can spray the surface with a sealant or cover it with gypsum wallboard. However, painting over lead-based paint with non-lead paint is not a long-term solution. Even though the lead-based paint may be covered by non-lead paint, the lead-based paint may continue to loosen from the surface below and create lead dust. The new paint may also partially mix with the lead-based paint, and lead dust will be released when the new paint begins to deteriorate.

3. Have the lead-based paint removed.

Have professionals trained in removing lead-based paint do this work. Each of the paint-removal methods (sandpaper, scrapers, chemicals, sandblasters, and torches or heat guns) can produce lead fumes or dust. Fumes or dust can become airborne and be inhaled or ingested. Wet methods help reduce the amount of lead dust. Removing moldings, trim, window sills, and other painted surfaces for professional paint stripping outside the home may also create dust. Be sure the professionals contain the lead dust. Wet-wipe all surfaces to remove any dust or paint chips. Wet-clean the area before re-entry.

You can remove a small amount of lead-based paint if you can avoid creating any dust. Make sure the surface is less than about one square foot (such as a window sill). Any job larger than about one square foot should be done by professionals. Make sure you can use a wet method (such as a liquid paint stripper).

4. Reduce lead dust exposure.

You can periodically wet mop and wipe surfaces and floors with a high phosphorous (at least 5%) cleaning solution. Wear waterproof gloves to prevent skin irritation. Avoid activities that will disturb or damage lead based paint and create dust. This is a preventive measure and is not an alternative to replacement or removal.

Contact your state and local health departments lead poisoning prevention programs and housing authorities for information about testing labs and contractors who can safely remove lead-based paint. The U.S. Department of Housing and Urban Development (HUD) prepared guidelines for removing lead-based paint. Ask contractors about their qualifications, experience removing lead-based paint, and plans to follow these guidelines.