Standards of Practice

Revised 1996

TABLE OF CONTENTS

Introduction, Purpose and Scope

General Limitations and Exclusions

Section A

MECHANICAL INSPECTION

- Central Heating - Air Conditioning and Venting Systems - Fireplaces
- Electrical System - Plumbing Systems - Household Appliances
- Miscellaneous Information

WHOLE HOUSE INSPECTION

- Roofing System - Exterior Structure - Structural Foundation System
- Interior Systems - Fireplaces and Chimneys - Miscellaneous Information
- General Glossary

Section B

ENVIRONMENTAL INSPECTIONS

- Radon (with Glossary) - Asbestos (with Glossary) - Lead (with Glossary)

- Other Environmental Inspections

Acknowledgments

The Society of Professional Property Inspectors

INTRODUCTION:

The Society of Professional Property Inspectors, Inc. (SPPI), a non-profit professional society, was formed in 1989 to promote excellence within the property inspection industry and to provide a forum where inspectors can improve their knowledge and skills. To become a certified member of SPPI, an inspector must perform at least 350 fee-paid inspections, successfully complete a written examination and peer review, regularly attend meetings and other membership requirements, including maintaining current existing education or continuing education requirements. Members are required to conduct their business and inspections in accordance with SPPI Code of Ethics and Standards of Practice and any applicable laws.

STANDARDS OF PRACTICE:

The following Standards of Practice are written and published to:

A. Provide inspection guidelines;

B. Inform the public of the specific inspection services provided by the members;

C. Define and clarify certain terms, conditions, and limitations relating to inspections performed.

PURPOSE AND SCOPE:

A. These Standards of Practice apply to any and all structures and have been developed by the collective experience and judgment of the members of this Society.

B. These Standards and descriptions are designed to identify and disclose to the client certain conditions of the systems identified, and provide the client with a better understanding of the property conditions, as observed at the time of the inspection.

C. These Standards are designed for a visual and brief operational inspection of the readily accessible areas of the included systems.

D. Inspections performed under the Standards of Practice shall not be for the purpose of determining compliance of a system or component with governmental or non-governmental codes, regulations, or requirements. Inspections performed are essentially visual and are based on the experience and opinion of the inspector, and are not intended to be technically exhaustive.

E. Inspections performed under these Standards are not intended to be warranties, guarantees or promises of adequacy, performance, operability, habitability, or suitability of structures, systems, or their component parts.

F. Inspectors shall submit a written report to the client which describes the components in these Standards and state which systems and components so inspected were found to be in need of immediate major repair.

G. Inspections under these Standards shall be performed in a time period sufficient to allow the inspector to comply with all of its provisions.

H. These Standards apply to all primary structures. All detached structures shall be inspected according to these Standards only if specifically included in the inspection contract.

I. Each of the various systems or the components identified in these Standards may be inspected alone, in combination with each other, or other systems or components not identified in these Standards.

J. These Standards are not intended to limit inspectors from excluding systems and components from the inspection if requested by the client.

K. In the event these Standards conflict with other established standards, these shall take precedence.

GENERAL LIMITATIONS AND EXCLUSIONS:

Unless ordered as a specific purpose inspection, or otherwise contracted, the following inspection opinions described here are NOT REQUIRED as part of the examination or written report:

A. Compliance with local and/or national building codes or permits.

B. General routine maintenance.

C. Life expectancy of any system or component.

D. Cosmetic or aesthetic qualities, underground components, recreational equipment, or items not permanently installed.

E. Design, engineering or architectural consideration, including, but not limited to, the methods, materials, and costs for any corrections, and calculate the strength and adequacy, or efficiency of any system or component, or design problems.

F. Destructive inspections.

G. Water, soil, geological, air, or any environmentally hazardous material analysis, or determine the effectiveness of any system installed to control or remove any suspected hazardous substances.

H. The causes of any situation which may adversely affect the function or operation of a system or component.

I. Suitability of the property for any special use.

J. The advisability or inadvisability of purchase or sale of the property.

K. The market value of the property or its marketability.

L. The presence or absence of pests such as wood damaging organisms, rodents, or insects.

M. Any component or system which is not observed, concealed, or inaccessible.

Inspectors are not required to:

A. Offer or perform any act or service contrary to law.

B. Offer warranties or guarantees of any kind.

C. Enter an area or perform any procedure which may damage the property, its systems or components, or be dangerous to the inspector or other persons.

D. Operate any system or component which is shut down or is otherwise inoperable.

E. Operate any system or component which does not respond to normal operating controls.

F. Move personal items, furniture, equipment, plant life, soil, ice, snow, insulation, or other debris which obstructs access or visibility.

G. Evaluate acoustical characteristics of any system or component.

Inspectors shall not be expected to be knowledgeable or responsible for language within any Real Estate sales contract or any interpretation thereof.

SECTION A

In this region, two types of inspections are commonly performed: mechanical (partial) and whole house. According to these Standards, a MECHANICAL INSPECTION is one which observes those systems and components operated by GAS, WATER, or ELECTRICITY. A WHOLE HOUSE INSPECTION includes mechanical systems and the structural elements of the property.

MECHANICAL INSPECTION

CENTRAL HEATING, AIR CONDITIONING AND VENTING SYSTEMS:

The inspector shall observe and briefly test permanently installed heating and central air conditioning systems and their component parts including, but not limited to, heating equipment; cooling and air

handling equipment; normal operating controls; automatic safety controls; chimney flues and vents; solid fuel heating devices; heat distribution systems including fans, pumps, ducts and piping, supports, dampers, insulation, air filters, registers, radiators, fan coil units, or convectors to determine if the systems are in working condition, and to determine if these systems are safe. The inspector shall also observe the presence of an installed heat source in each room. The inspector shall describe energy source, heating equipment and distribution type; operate the systems using normal operating controls; and open readily accessible access panels provided by the manufacturer or installer for routine homeowner maintenance. Working condition of the central air conditioning system is defined as follows: the system responds to normal operating controls and produces a minimum 10 degree temperature difference between incoming air and outgoing air.

If, in the inspector's opinion, the condition of the heating system is not safe, the inspector can, and should, identify that fact to all present. The inspector will also indicate this unsafe condition in writing. If, in the inspector's opinion, danger to the occupants of the structure is imminent and life threatening because of the unsafe heating system, the inspector shall endeavor to shut down said system. Such situations deal only with forced air and gravity air heating systems using wood and fossil fuels and produce carbon monoxide as a possible by-product of combustion.

The inspector is not required to operate systems which are shut down. Certain ambient conditions may not allow the inspector to test a system or component. If the ambient temperature outside the structure is below 65 degrees Fahrenheit, the inspector is not required to test/operate air conditioning systems or components because of possible equipment damage. If the ambient temperature outside the structure is above 80 degrees Fahrenheit, the inspector is not required to test/operate heating systems or components. The inspector is not required to operate automatic safety controls; ignite or extinguish solid or fossil fuel fires; observe/test the interior flues, fireplace insert flue connectors, humidifiers, electrostatic percipitators, electric air filters, auxiliary non-central heating systems, unsealed combustible heaters, radiant heating systems, non-central air conditioners, gas operated air conditioners, free standing wood appliances, fireplace inserts, fireplace draft, or solar (active or passive) systems/components; or observe/test the uniformity or adequacy of heat supply or cool air supply to various rooms.

The inspector is not required to perform pressure tests on central air conditioning systems.

The inspector shall observe the exposed portion of the venting systems and components and determine if they are in working condition. This shall be done by using the normal operating controls. The inspector is not required to test or observe auto thermostat controlled roof exhaust systems.

FIREPLACES:

The only mechanical components of a fireplace are the flue damper, gas jet/start, and circulating fan. The inspector shall observe/test if these components are present and are in safe working condition.

ELECTRICAL SYSTEM:

The inspector shall observe and test the visible electrical power systems for safety and working condition. The inspector shall also observe service entrance conductors; service equipment; grounding equipment; main overcurrent device; main and distribution panels; amperage and voltage ratings of the service; branch circuit conductors, their overcurrent devices, and the compatibility of their ampacities and voltages; the operation of a representative number of installed lighting fixtures, switches and receptacles located inside the building, garage, and/or its exterior walls; the polarity and grounding of all receptacles within six feet of interior plumbing fixtures and all receptacles in the garage or carport, and on the exterior of inspected structures; the operating of ground fault interrupters. The inspector shall describe service amperage and voltage; service entry conductor materials; service type as being overhead or underground; location of main and distribution panels; report any observed aluminum branch circuit wiring.

The inspector is not required to insert any tool, probe, or testing device inside the panels; test or operate any overcurrent device except ground fault circuit interrupters; dismantle any electrical device or control other than to remove the readily accessible covers on the main and auxiliary distribution panels. The inspector is not required to observe or test certain electrical power components such as photo cells, exterior detached lighting, and any timing devices. The inspector is also not required to observe or test certain electrical low voltage systems and components such as, but not limited to, security systems, central vacuum systems, intercom systems, cable TV or telephone systems, remote relay lighting systems, or other ancillary wiring that is not part of the primary electrical distribution system.

PLUMBING SYSTEM:

The inspector shall observe the visible plumbing system and its components including interior water supply and distribution system, including piping materials, supports and insulation, fixtures and faucets, functional flow, leaks and cross connections; interior drain, waste and vent system including traps, drains, waste and vent piping, supports and insulation, leaks, and functional drainage; hot water systems including water heating equipment, normal operating controls, automatic safety controls, chimneys, flues and vents, fuel storage and distribution systems including interior fuel storage equipment, supply piping, venting, supports, and leaks; and sump pumps. The inspector shall operate all plumbing fixtures including all exterior faucets attached to the building (weather permitting), and observe the exposed piping used to carry water, waste water, and gas.

The inspector shall describe the water supply and distribution piping materials; drain, waste and vent piping materials; water heating equipment; and locations of main shut off valves (gas and water). Shower stall walls and floor pan shall be deemed part of the plumbing waste system and observed for damage and leaks.

Testing for escape of gas, whether natural or propane, shall be done within the structure by the inspector by an approved method such as soap bubbles, test by TIF 8800, or by ultra sound detection. If, in the inspector's opinion, an unsafe condition exists due to a gas leak within the structure, the inspector shall identify the leaks to all persons present. He shall also notify all parties in writing (inspection report) of said condition. If, in the opinion of the inspector, there is imminent danger to the occupants of the structure, the inspector shall endeavor to shut down the gas system. If, for whatsoever reason, the inspector cannot, or is not allowed by those parties present at the inspection to shut off the gas to the structure, he may contact the Fire Marshal with local jurisdiction and inform him of said unsafe condition.

The inspector is not required to state the effectiveness of anti-siphon and/or backflow/backflush devices; determine whether water supply and waste disposal systems are public or private; operate automatic safety controls; operate any valve except water closet flush valves, fixture faucets and hose faucets; observe or test water conditioning systems, fire and lawn sprinkler systems, on-site water supply systems (quantity and quality), on-site waste disposal systems, foundation irrigation systems, floor and laundry drains, swimming pools, hot tubs, spas, and saunas (except as to functional flow and/or drainage).

HOUSEHOLD APPLIANCES:

The inspector shall observe and test the household appliances within the structure. This testing and observation will be limited to using the normal operator controls. The inspector will test a representative number of cycles of those appliances that have multiple cycles.

The inspector is not required to test self-cleaning and time-bake cycles, and clock timers on ovens and ranges. The inspector is not required to observe or test other household appliances such as, but not limited to, window or room air conditioners, refrigerators, hot water dispensers, dehumidifiers, ice makers, gas grills, washers and dryers, or any other appliances which are not built into the structure.

Garage door openers shall be tested by the permanently mounted trigger button and observed for working condition and safety. The inspector shall use an approved test procedure for testing the safety reverse mechanism features. The inspector is not required to test garage door opener remote control devices.

MISCELLANEOUS INFORMATION:

The inspector is not required to enter into the attic cavity of the structure while performing a mechanical inspection, unless the heating and/or air conditioning systems are located in that space. The inspector is not required to observe any air conditioning components mounted on roofs. The inspector is not required to observe or test radon mitigation devices.

The inspector will submit a written report to the client. This report is the property of the client and shall not be given to any third party without the client's permission.

The inspector cannot require repairs. The inspector can only make a list of recommendations for repairs. The inspector is not required to give an estimate for the cost of any repairs he may have recommended.

The purpose of the mechanical inspection is to disclose the condition of the mechanical systems of the structure at the time of the inspection only. The course of action, based on the recommendations of the written inspection report, is a matter for resolution between buyer and seller.

WHOLE HOUSE INSPECTION

The inspector shall observe and test all of the mechanical inspection systems and components as previously mentioned.

ROOFING SYSTEM:

The inspector shall describe the type of roof covering materials, and report the methods used to observe the roof. The inspector shall observe and report on the roof coverings, ridges, valleys, flashings, plumbing vents, skylights, chimney penetrations, and other roof penetrations; the roof drainage system including gutters, downspouts, soffits, fascias, eaves, roof venting, and signs of visible leakage and stains, or abnormal or harmful condensation on building components. The inspector shall observe and describe insulation and vapor retarders (or the lack thereof), ventilation in attics, and observe roof/attic structure, including framing members and roof sheathing.

The inspector can only comment on the conditions found at the time of inspection and cannot predict the longevity of the roof system, therefore, the inspector is not required to estimate the remaining useful life of the roofing system. The inspector is not required to walk on roofing or observe attached accessories including, but not limited to, solar systems, antennae, and lightning arrestors. The inspector is not required to observe the attic components if the attic is not readily accessible.

EXTERIOR STRUCTURE:

The inspector shall observe and report on the exterior components including siding/trim materials, flashings,eaves, soffits and fascias, a representative number of windows and entry doors, decks, balconies, stoops, steps (including railings), areaways, porches, patios, walkways, driveways, window wells, wing-walls, garage doors, grade, slope, drainage (including guttering, downspouts, and splash blocks), and vegetation and retaining walls with respect to their effect on the condition of the structure.

The inspector shall report any hazardous condition in which an individual may be harmed by tripping or falling, and the absence of railings/banisters on exterior steps. The inspector is not required to observe or report on fences, door/window storm coverings or screens, shutters, awnings and similar seasonal

accessories. The inspector is not required to report geological or soil conditions, recreational facilities, and outbuildings other than garages and carports.

STRUCTURAL FOUNDATION SYSTEM:

The inspector shall observe and report on the structural foundation system and components including type of foundation (whether slab, crawl space or basement), foundation floors, walls, ceilings, columns, piers, ventilation, sumps, visible exterior walls, grade, slope, and drainage (including guttering, downspouts, and splash blocks).

The inspector will probe structural components where deterioration is suspected; however, probing is NOT required when it would damage any finished areas. The inspector will enter crawl spaces except when access is obstructed, when entry could damage the property, or when dangerous or adverse situations are suspected. The inspector shall report the methods used to observe underfloor crawl spaces, and report signs of water penetration into the building or signs of abnormal or harmful condensation on building components.

INTERIOR SYSTEMS:

The inspector shall observe and report on the interior components of the structure including walls, ceilings, floors, stairways, balconies and railings, counters and a representative number of cabinets, doors, and windows. The inspector shall operate a representative number of windows and doors, and report signs of water penetration into the building or signs of abnormal or harmful condensation on building components. The inspector is not required to observe wall and floor coverings or window treatments.

FIREPLACES AND CHIMNEYS:

The inspector shall observe the fireplace and chimney components including conditions and the type of fireplace (whether masonry or prefab), type of chimney flue (whether masonry or metal), the absence of a chimney flue liner, and the condition of the flue damper (or absence of such). The inspector shall report any condition which, if in the inspector's opinion, a fire or chimney fire may occur due to creosote build-up, etc. The inspector is not required to observe/report on spark suppression systems, combustible air systems, add-on wood stove appliances or inserts, fireplace screens or glass doors.

MISCELLANEOUS INFORMATION:

The inspector will submit a written report to the client. This report is the property of the client and shall not be given to any third party without the client's permission.

The inspector cannot require repairs. The inspector can only make a list of recommendations for repairs. The inspector is not required to give an estimate for the cost of any repairs he may have recommended.

The purpose of a whole house inspection is to disclose the condition of the various systems and components of the structure at the time of the inspection only. The course of action, based on the recommendations of the written inspection report, is a matter for resolution between buyer and seller.

GLOSSARY OF GENERAL TERMS

ACCESS PANEL: A panel provided for inspection purposes which was specifically designed and installed with removable fasteners or latch devices in order to be lifted off, swung open, or otherwise removed by one person, and its edges and fasteners are not painted in place.

ACTIVATE: To turn on equipment by normal control means, such as a thermostat or a control switch.

AMBIENT TEMPERATURE: The temperature of the air surrounding the equipment.

AUTOMATIC SAFETY CONTROLS: Devices designed and installed to protect systems and components from excessively high or low pressures and temperatures, excessive electrical current, loss of water, loss of ignition, fuel leaks, fire, freezing, or other unsafe conditions.

CENTRAL AIR CONDITIONING: A system which uses ducts to distribute cooled and/or dehumidified air to more that one room at a time, and which is not plugged into an electrical convenience outlet.

CENTRAL HEATING: The major heating system or source in a dwelling such as a boiler or furnace, or in the absence of a centrally located or single heating source in a dwelling, the individual thermostatically controlled heat system in each room.

CLEARANCE TO COMBUSTIBLES: The distance between a heat producing appliance, chimney, connector, vent, vent connector, plenum, and other surfaces. Also, in garages, the distance between the floor and an installed source of ignition.

COMPONENT: A readily accessible and observable unit part of a system or group, i.e., the fuse panel or circuit breaker panel is a component of the electrical system; a dishwasher is a component of the kitchen

appliances; a roof truss is a component of the structural system, etc.COSMETIC: Pertaining to any component or part of a component or system that has as its primary function to decorate, adorn, beautify, etc., itself or another component or system.

CROSS CONNECTION: Any physical connection or arrangement between potable water and any source of contamination.

DANGEROUS or ADVERSE SITUATION: Situations which pose a threat of injury to the inspector, or those situations which require use of special protective clothing or safety equipment.

DETACHED BUILDINGS: Apart from the inspected dwelling, such as a guest cottages, bath houses, garages with or without apartment, barns , and other outbuildings under a separate roof from the main building.

DIRECT WIRED COMPONENT: Any component wired directly into the electrical system without any readily available way to disconnect from the electrical system.

DISMANTLE: To take apart or remove any component, device or piece of equipment bolted, screwed, or fastened by any other means, which would not be dismantled by a homeowner in the course of normal household operations.

EASY ACCESS: Gaining access for inspection purposes into areas or openings specifically designed and installed for a normal sized person to enter into or to pass through in a safe manner. Also see 'READILY ACCESSIBLE'.

ENGINEERING: Analysis or design work requiring extensive preparation and experience in the use of mathematics, chemistry, physics, and the engineering sciences.

ENTER: To go into an area to observe all visible components.

FLUE PIPE: The pipe connecting the fire chamber of a boiler, furnace or other combustion component to the exterior or to a chimney for venting; also known as a smoke pipe.

FUNCTIONAL DRAINAGE: A drain is functional when it empties in a reasonable amount of time and is not subject to overflow when one of its faucets is left on, or when another fixture is drained simultaneously.

FUNCTIONAL FLOW: Sufficient flow of water to keep the highest fixture in a dwelling clean when two or more fixtures are operated simultaneously.

HABITABLE: Habitable spaces in a structure are spaces used for normal functions such as sitting, working, or living, or any space that could be converted into the same. Not considered habitable spaces for the above purposes are closets, halls, storage spaces, or utility areas.

HEAT SOURCE: A heat source may be a radiator, convector unit, radiant panel, heat pipe, ductwork, grille, register, or similar devices from which heat is emitted into a room.

HOUSEHOLD APPLIANCES: Components or devices used in kitchens or laundry, commonly operated or used during the normal household activities. Such components can be either free standing or built-in, direct wired, or readily unplugged.

IDENTIFY: Report verbally or in writing a system or component by its type, or other observed characteristics, to distinguish it from other systems or components used for the same purpose.

INSPECTOR: Any person who examines any component of a building, through visual and brief operational means, and through normal user controls, without the use of engineering sciences.

INSTALLED: Attached or connected to the structural, mechanical, plumbing, or electrical systems of the building such that the item installed cannot be removed without the use of tools.

MAJOR DEFICIENCY: A defect is considered to be major if it severely affects the habitability of the dwelling, or, in the opinion of the inspector, may cost in excess of $500.00 to repair.

NORMAL OPERATING CONTROLS: Those control devices or switches used by the homeowner in the normal daily or seasonal use of the respective component, such as a wall thermostat, wall switch, or safety switch.

OPERATE: To cause equipment to run and function after it has been activated, such as turning up the thermostat on an activated heating system, or turning on a light switch.

READILY ACCESSIBLE: To be readily accessible, a piece of equipment or an area to be inspected must be within the inspector's normal reach, and should not require the removal or relocation of household furniture or stored personal goods. Also, attic access panels and other ceiling inspection panels are considered when they can be safely reached from a 4 foot step ladder.

RECREATIONAL FACILITIES: Spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, gas grills, and other exercise, entertainment, or athletic facilities.

REPRESENTATIVE NUMBER: A representative number inspection relates to those elements in a dwelling of which there are many identical elements in the dwelling, and which, if some were defective would have a small value or small effect on the overall value of the dwelling, such as electric outlets and windows. To inspect a representative number would mean inspecting one such element per room, such as one electrical outlet and one set of windows in each room. On identical elements attached to the exterior walls of the dwelling, the same formula may be used in relation to each side of the dwelling.

SHUT DOWN: A piece of equipment or system is considered shut down when it cannot be activated or operated by the device or control which normally operates it. Also, if the safety switch or fuse is in the "off" position or if the circuit breaker is in the "off" position, the inspector is not required to activate it. It is the responsibility of the owners or their agents to ensure the systems to be tested are not shut down at the time of the inspection.

STRUCTURE: Habitable building.

SYSTEM: A complete part of a building which can be easily identified apart from other parts of the building, i.e., plumbing system, electrical system, roofing system, etc.

TECHNICALLY EXHAUSTIVE: An inspection is technically exhaustive when it involves the extensive use of measurements, instruments, testing, calculations, and other means to develop scientific or engineering findings, conclusions, and recommendations.

SECTION B

ENVIRONMENTAL INSPECTIONS

Environmentally unsafe conditions or perceived unsafe conditions may exist in many homes. Such conditions are seldom identifiable with visual inspection and require special equipment and testing procedures. Some environmental hazards may not yet have specific inspection protocols or may yet to even be identified by the United States Environmental Protection Agency or other recognized authority.

Environmental issues may include, yet are not limited to: radon, lead, asbestos, electromagnetic fields, formaldehyde, toxic wastes, fiberglass, pesticides, chemicals, bacterial contamination of well water or other bacterial contamination, underground fuel oil storage tanks, etc.

Other than when specifically contracted to provide an inspection for a specific environmental concern, inspectors shall not be responsible for any environmentally unsafe conditions, perceived unsafe conditions or for any lack of knowledge or client understanding of such issues.

Distinct inspection procedures for each specific environmental concern are required to properly identify an unsafe or hazardous environmental condition and/or related monetary considerations that may result with future renovations, repairs, disclosures, etc.

In the event an inspector, during performance of other inspection services, visibly observes latent environmental concerns, (i.e. suspected asbestos containing materials which are damaged, evidence of fuel oil storage systems, etc.), the inspector is not required to provide notification of such conditions. The inspector may, at his sole discretion, provide notice of any observed conditions and/or recommend further evaluation by a qualified professional.

SPPI Environmental Standards are not intended to supersede those established or to be established by appropriate authoritative bodies (i.e., EPA, State, etc.). Inspector certification or other credentials for environmental inspection are not obtained through SPPI membership but are obtained through the appropriate, recognized authoritative body (i.e., EPA, State, etc.) where applicable. SPPI recommends any

member, member's company, and other inspectors in a member's company become trained and acquire appropriate credentials from the appropriate, recognized authoritative body (i.e., EPA, State, etc., where applicable) prior to performing environmental inspection services.

SPPI Environmental Standards are intended to: 1) support the intent of established and future protocols or guidance from appropriate authoritative bodies; 2) establish a minimum of responsible practices for these separate, specific, and individual inspection procedures; 3) clearly differentiate each environmental inspection consideration from all other inspections regardless if a reference is made to environmental issues in a written report, verbal, or other.

RADON TESTING:

CLOSED HOUSE TEST PROTOCOL:

Inspectors shall inform occupants of EPA closed house protocols for short term testing when applicable. Inspectors shall provide occupant with a written statement of the required closed conditions and review them with occupant when possible. EPA closed house protocols apply to the entire building and are to be maintained at least twelve (12) hours prior to the deployment of testing devices. Required conditions include:

- All exterior windows and doors through the entire structure to be closed throughout the test period. Momentary entry, exit, or inspection is allowed.

- A typical occupied condition and typical operation of heating or cooling systems are to be maintained.

- Whole house fans or fireplaces (unless a primary heating source) shall not be activated during the test (other than for momentary inspection).

- Testing devices are not to be disturbed during the test.

In the event the required closed house conditions are not found to be intact at the time of scheduled deployment: For passive radon detectors, the test shall be rescheduled or test period extended for at least four (4) days; For active radon detectors (which provide hourly readings), the test period shall be extended or rescheduled to allow a minimum of forty-four (44) contiguous hours of valid test time.

DEVICE LOCATIONS:

As quoted from EPA protocol document #402-R-92-003: devices should be located in the "lowest level suitable for occupancy"; "This includes a basement which can be used as a recreation room, bedroom, or playroom. This provides the client with the option of using a lower level of the structure as part of the living area, with the knowledge that it has been tested for radon".

In consideration of client's future occupancy patterns or concerns of a future purchaser when the client sells the structure, inspectors shall make a reasonable effort to inform the client of choices for detector location (if applicable).

Inspectors shall follow EPA protocols to the best of their ability:

For real estate transactions utilizing passive radon detectors, there are two options: 1) a minimum of two, collected passive detectors shall be deployed; 2) two devices placed sequentially (where readings of first test are not disclosed until the second test is completed).

Devices shall be located a minimum of twenty (20) inches off the floor, twelve (12) inches from exterior walls, three (3) feet from doors or windows, and four (4) inches from other objects. Inspector should attempt to measure ambient breathing air and attempt to assure detectors are not close to a potential radon entryway.

NOTIFICATION, DOCUMENTATION AND GUIDANCE:

Inspectors shall attempt to attain a signature from the occupant or authorized agent that the occupant has been informed of the required conditions and agrees to comply with them. Inspectors shall make other reasonable attempts at tamper prevention which may include tamper resistant stickers for windows and doors.

Inspectors should make a reasonable attempt to supply the client with appropriate EPA informational literature. (Document noted: "EPA Home Buyers and Sellers Guide to Radon").

Inspectors should document testing device locations, weather conditions during the test, tamper resistant methods, if applicable, and any other pertinent information observed regarding the test conditions or deviations from testing protocols. As per EPA protocols, readings measured in picocuries should be reported with only one decimal point digit (e.g., 3.96 is to be reported as 4.0 pCi/L).

Inspectors providing radon health risk guidance shall base said guidance on EPA's "Citizen's Guide" or "Home Buyers and Sellers Guide to Radon". Inspectors providing radon reduction guidance shall base said guidance on EPA's "Citizen's Guide", "Home Buyers and Sellers Guide", or "Consumers Guide to Radon Reduction". (Notable: Sealing is not recommended by EPA as a "stand alone", radon reduction method). In the event readings are 4.0 pCi/L or greater, inspectors shall refer clients to contact EPA, local health officials, or a qualified consultation regarding readings or remediation methods.

Inspectors shall use testing devices or laboratories which are EPA listed. Members providing primary test services (i.e., where inspector accesses and reports readings directly from the device) shall be EPA listed.

RADON REDUCTION SYSTEM INSPECTIONS:

Active Radon Reduction Systems:

Inspectors shall inform the client that EPA recommends retesting systems every two years. (This applies to active systems and may also be applied to passive sealing when found.)

Inspectors shall inform the client of any hazardous mechanical or electrical conditions in a manner similar to other components of a structure. Inspectors shall make a reasonable effort to assure the fan is operative.

Inspectors shall recommend that a system failure indicator be operative. Typical indicator is a U-tube pressure gauge.

Though upgrades are not required by EPA, inspectors should recommend contacting a qualified consultant when systems do not conform to current EPA Standards. (Notable: Fan located on interior of heated or cooled areas or discharge at ground level.)

Passive Sealing:

Covers which have been lifted yet not resealed shall be regarded as needing repair. Sump covers should be designed with reasonable accessibility (e.g. the ability to be unscrewed and lifted for sump maintenance). Clear covers to provide visual inspection are recommended.

------- RADON GLOSSARY

ACTIVE RADON DETECTORS: Provide hourly readings (continuous radon or working level monitors).

ACTIVE RADON REDUCTION SYSTEMS: Generally refers to Active Soil Depressurization Systems (commonly referred to as Soil Suction, Sub-slab Systems, Fan Systems, etc.).

EPA APPROVED (RCP): Having fulfilled EPA requirements for the voluntary "Radon Contractors Proficiency" Program which include training, passing EPA exams, and paying program user fees.

EPA LISTED (RMP): Having fulfilled EPA requirements for the voluntary "Radon Measurement Proficiency" Program which include training, passing EPA exams, and paying program user fees.

EPA TEST PROTOCOLS: EPA Document #402-R-92-003.

PASSIVE RADON DETECTORS: Do not provide hourly readings (i.e., charcoal canister, electrets, etc.).

RPP: Radon Proficiency Program. EPA voluntary program (RCP & RMP)

ASBESTOS

Background

Asbestos is the name for a group of natural minerals that separate into strong, very fine fibers. The fibers are heat resistant, extremely durable, and, therefore, very useful in construction and industry. Asbestos Containing Materials (;ACM or ;;ACBM) were most commonly utilized in building construction prior to 1978, yet virtually all buildings are constructed with some asbestos containing materials.

Asbestos (sometimes called mineral fiber) tends to break up into a dust of microscopic fibers which can remain suspended in the air for a period of time, or can fall to the floor and become airborne at a later date. Long term exposure increases the likelihood of developing an asbestos related lung disease.

"Friable Asbestos" means any material containing more than 1% asbestos by weight which is easily crushed by hand pressure and, therefore, likely to emit fibers when disturbed. The potential for products to release asbestos fibers depends upon several factors, including its location and degree of friability. Asbestos containing materials (;ACM) may have the potential for fallout or to be damaged during routine use of the home when materials are not well bonded.

Asbestos has been used for: fire protection; thermal insulation on boilers, tanks, air ducts, pipes, fittings, appliances, walls, etc.; acoustical and decorative purposes on exposed surfaces such as sprayed ceilings

(1945 to 1978), floor coverings, roofing and siding materials, patching compounds, etc.; strengthening product material such as floor tile or linoleum backing.

Asbestos containing materials require maintenance including periodic inspections for signs of damage and deterioration. Asbestos may require repairs or abatement due to health concerns, or before work can commence on future renovations, heating system repair/replacement, etc.

GOVERNMENT AGENCIES:

Five federal agencies regulate asbestos including EPA and the Consumer Product Safety Commission. EPA's Asbestos Hazard Emergency Response Act (AHERA) is targeted only at commercial or public housing style buildings.

EPA has not provided specific standards, regulations, or protocols for single family dwellings at this time other than for disposal of materials. SPPI Asbestos Inspection Standards are written in an attempt to establish a minimum of responsible practices for asbestos inspection/consultation in single family dwellings.

SPPI Asbestos Inspection Standards

Two levels of asbestos inspection are established: Asbestos Visual Consultation/Inspection and Asbestos Sampling Survey Inspection.

In either case, the inspector shall: a) Visually observe all readily accessible areas of the building and attempt to identify locations and condition of "suspected" asbestos containing materials including friable, non-friable, and those that could become friable. (Friability may be determined by touching.); b.) Attempt to provide educational information regarding asbestos when practical.

Inspectors are not required to design asbestos management, repair, or abatement plans.

1.) Asbestos Visual Consultation/Inspection

Inspector is not required to take samples of "suspected" asbestos containing materials (which may entail destructive test procedures). In the event that presumed asbestos containing materials exist, clients may be advised to contact a qualified consultant for further evaluation which may result in sampling procedures to substantiate or verify the presence of asbestos containing materials, and/or possible repair or abatement.

Reports shall include documentation in a clear and unambiguous manner regarding the condition, locations and susceptibility to damage of observed friable and non-friable "suspected" asbestos containing materials.

2.) Asbestos Sampling Survey Inspection

Inspector shall sample all "suspected" asbestos containing materials , or sample only friable "suspected" asbestos containing materials and assume non-friable "suspected" Asbestos containing materials to contain asbestos. Sampling methods shall include AHERA quality control guidelines and may entail as needed: laboratory analysis, air sampling, etc.

Reports shall include laboratory contact information and documentation in a clear and unambiguous manner regarding the sample locations and laboratory findings as well as the condition, locations and susceptibility to damage of observed friable and non-friable "suspected" or confirmed asbestos containing materials.

------ ASBESTOS GLOSSARY

ABATEMENT: The removal of the asbestos materials which should be performed by only qualified and listed EPA asbestos contractors.

;ACM: Asbestos Containing Materials

;;ACBM: Asbestos Containing Building Materials.

ENCAPSULATION: Treatment of ;ACM with a material that surrounds or embeds the asbestos fibers in an adhesive matrix to prevent the release of fibers. The encapsulant forms a membrane over the surface or penetrates the ;ACM and binds its components together.

FALLOUT: The result of aging and deterioration of the bonding agents that hold the asbestos products together. The deterioration increases as the structure ages and asbestos fibers can accumulate on horizontal surfaces over time. Physical disturbance can cause fibers to be released to the air. Sweeping or dusting can cause low to high airborne concentrations.

REPAIR: Returning ;ACM to an undamaged or intact condition so as to contain a fiber release

RESPONSE ACTION: An organized plan for taking corrective action according to EPA guidelines.

LEAD

Background

Approximately three quarters of the nation's housing stock built before 1978 contain some lead paint. When properly maintained and managed, this paint poses little risk. If improperly managed, however, lead from paint can threaten the health of occupants, especially children under 6 years of age. Lead is also found in water and soil.

GOVERNMENT AGENCIES:

As directed by Congress, protocols and guidance are being refined and have been created by EPA, HUD,CPSC, and others. Together, these agencies developed the booklet "Protect Your Family from Lead in Your Home" to be widely distributed. Some Documented Lead Limits include:

Paint: 1.0 mg/cm2 (1 milligram per sq. centimeter) EPA

Soil: 500-1,000 ppm (parts per million) EPA

Water: 15 ppb (parts per billion) EPA

Dust: 200 ug/ft2 Floors HUD

Dust: 500 ug/ft2 Interior window sills HUD

Dust: 800 ug/ft2 Window Wells HUD

HUD has published requirements in documents including "Lead-Based Paint Risk Assessment Protocol", "Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing", etc. Much of the following SPPI standards are based on EPA requirements published by EPA in the Federal Register (8-29-96). Where regulations from authoritative bodies disagree, the most stringent requirements from each of the regulations must be complied with.

SPPI Lead Inspection Standards

Three levels of inspections for lead in paint have been established by EPA: lead inspection, lead hazard screening, and lead risk assessment. In addition, requirements are being established for post - abatement clearance testing and lead in water inspections.

Sampling methodologies shall provide detectable lead levels that can be quantified numerically (i.e. X-Ray Fluorescence analyzers, laboratory analysis, etc.). Sampling shall be conducted as per "=documented methodologies" and shall include adequate quality control. For single-family housing, sampling results

can not be extrapolated to other dwellings. Inspectors shall maintain all appropriate licensing and registration including those required for analysis equipment. Report shall be provided and include:

Inspector name, signature and appropriate certification numbers

Date of building's construction.

Each testing method, quality control data, and device numbers.

Full documentation in a clear and unambiguous manner the results and specific locations of each component tested.

A description of "=documented testing methodologies" and any notable deviance from "=documented methodologies". It is assumed that the inspector shall formulate the testing plan unless otherwise contracted.

Results expressed in terms appropriate for the sampling method.

1.) Lead Based Paint Inspection:

Lead Inspection (per EPA) means a surface by surface investigation to determine the presence of lead - based paint.

The following locations shall be selected according to "=documented methodologies" and tested for the presence or lead-based paint: each component on the interior, exterior or common areas with a distinct painting history as indicated by its visual appearance or a record of application except for those components that the inspector determines to have been replaced after 1978, or to not contain lead based paint.

Interior components include, but are not limited to:

ceilings, crown molding, walls, chair rails, doors, door trim, floors, fireplaces, radiators and other heating elements, shelves, shelf supports, stair treads, stair risers, stair stringers, newel posts, railing caps, balustrades, windows and trim (including sashes, window heads, jambs, sills or stools, and troughs), built in cabinets, columns, beams, bathroom vanities, counter tops, and air conditioners.

Exterior components include but are not limited to:

painted roofing, chimneys, flashing, gutters and downspouts, ceilings, soffits, fascias, rake boards, cornerboards, bulkheads doors and door trim, fences, floors, joists, lattice work, railings and railing caps, siding, handrails, stair risers and treads, stair stringers, columns, balustrades, window sills or stools and troughs, casings, sashes and wells, and air conditioners.

Report shall also include an explanation of the investigation results.

2.) Lead Hazard Screening Inspection

Background information regarding physical characteristics of the structure shall be collected as well as occupant use patterns causing paint exposures to children under 6 years of age.

Visual inspection to determine the presence of deteriorating paint. If deteriorating paint is present, surfaces with deteriorating paint shall be tested for lead using documented methodologies. A minimum of two composite dust samples shall also be collected.

Reports shall include: laboratory contact information; results of visual inspection; recommendations, if warranted, for follow-up risk assessment and any further actions as appropriate.

3.) Lead Risk Assessment Inspection:

(a.) An on site investigation to determine the existence, nature, severity, and location of lead -based paint hazards, and (b.) the provision of a report explaining the results of the investigation and options for reducing lead-based paint hazards.

In addition to items listed for "Lead Hazard Screening" above; (a.) each other surface determined to be potential lead-based paint hazard and having a distinct painting history shall also be tested; (b.) dust samples (composite or single surface) shall be collected from windows or floors in all living areas or common areas where children are most likely to come in contact with dust; (c.) soil samples shall be taken at: exterior play areas with bare soil, dripline/foundation areas where soil is present,

Reports shall include all requirements of the "Lead Hazard Screening" report and: Background information regarding physical characteristics of the structure, and occupant use patterns causing paint exposures children under 6 years of age; results of any previous lead inspections or analysis; a description of location, type, and severity of identified lead-based paint hazards and other potential lead hazards; a description of interim controls and/or abatement options for each identified lead-based paint hazard; a suggested prioritization for addressing each hazard and shall include maintenance and monitoring schedules for abatement based on encapsulation or enclosure.

4.) Post Abatement Clearance Testing:

For the purposes of abatement clearance testing, inspectors and risk assessors should also sample for the the presence of lead in dust and soil.

5.) Lead in Water Testing:

Testing for lead in water entails analysis by a laboratory and shall be performed with a minimum of two samples and utilize "=documented testing methodologies" .

------ LEAD GLOSSARY

=DOCUMENTED TESTING METHODOLOGIES or =DOCUMENTED METHODOLOGIES: Methods or protocols established by authoritative bodies (i.e., EPA, HUD, States, etc.) used in sampling for the presence of lead in paint, dust, soil, water, etc.

ABATEMENT: Any measure or set of measures designed to permanently eliminate lead-based paint hazards.

OTHER ENVIRONMENTAL INSPECTIONS

(i.e., electromagnetic fields, formaldehyde, toxic wastes, fiberglass, pesticides, chemicals, bacterial contamination of well water or other bacterial contamination, underground fuel oil storage tanks, etc., as well as yet to be identified environmental hazards.)

SPPI supports and currently defers to the guidance and protocols being established by appropriate authoritative bodies in these issues.

SPPI standards will continue to be updated over time as appropriate.

ACKNOWLEDGMENTS

The membership body of the Society of Professional Property Inspectors consists of whole house inspectors, specialty inspectors, and inspector/contractors belonging to a wide variety of other organizations. Members differ in backgrounds, education, and certifications (from both the private and government sectors). The wide knowledge and experience from the entire membership has been a beneficial contribution. It has been an accomplishment to have such a diverse group as our membership work together to create this document. We appreciate the many hours spent by all the members, and the general spirit of cooperation that has prevailed throughout this process.

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