**Introduction to this example template**

Quality Assurance Plan for Performing Radon Mitigation.

The content provided in this template is a compilation that includes essential practices commonly associated with quality assurance programs as outlined in the EPA RMS, ASMTM E212 and Iowa Administrative Code. This template is not the only model that can provide a responsible QAP plan.

Note: No template is a complete Quality Management or Quality Assurance Manual until amended to reflect operations for an individual organization. Each topic item needs to be reviewed and, as applicable, amended to match each organization's structure and operation.

In addition: Completing a QAP template does not, in itself, fulfill requirements for Quality Control. Those occur as an ongoing process by observing requirements you have established in your QAP. If called to task by an audit or in a courtroom, evidence would be sought for verifying the degree that an organization complied with their customized QA plan.

***Disclaimer:*** *The Iowa Department of Public Health (IDPH) nor any person contributing to the preparation of this document makes any warranty, express or implied, with respect to the usefulness or effectiveness of any information, method or process disclosed in this material. Nor does IDPH assume any liability for the use of, or for damages arising from the use of, any information, method or process disclosed in this document. It is the sole responsibility of radon practitioners using this document to stay current with changes to state mitigation standards and to comply with local, state and federal codes and laws relating to their practice.*

Guide for completing this form:

* Items in brackets [ ] need replaced with your or company information, some are highlighted.
* Any highlighting should be removed from final draft.
* This document is provided as template to get you started on developing a QA\QC plan and can be altered, formatted as you see fit for your organization as long as the basic components as outlined in the RMS are included.

[DELETE THIS PAGE WHEN TEMPLATE IS COMPLETE]

[Company Name]

[Company Street Address, City, State, ZIP]

Quality Assurance Plan

For

Performing

Radon Mitigation

[Organization Owner’s or Responsible Party’s Signature]

**[Organization Owner’s Name or Other Responsible Party], [Title]**

[Quality Assurance Officer’s Signature]

**[Quality Assurance Officer’s Name], Quality Assurance Officer**

[Date]

Reviewed/Revised: \_\_\_\_\_\_\_\_\_

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1. **Goals and Objectives**

The purpose of this Quality Assurance Plan (QAP) is to set performance goals, identify responsibilities, establish procedures for assessing performance relative to quality, and to define corrective actions when needed.

This plan strives to reflect the requirements of the Iowa Department of Public Health standards of practice for radon mitigation.

This QA Plan is maintained and updated by [Name], [Title]. This Plan is revised with any adjustments involving changes of personnel and mitigation tools and equipment as well as regulatory requirements or professional association recommendations. If there are no revisions triggering changes, this plan is reviewed a minimum of annually.

The overall goal of [Company Name]’s QAP is to provide clients with radon control systems that are effective and reliable in radon reduction, easy to monitor, and cost-effective to operate over the life of the building.

The objectives of the QAP are to maintain a quality mitigation program and to document relative quality. In addition, a QA program adds greatly to the operator’s understanding of the procedures they use and provides early detection of problems so that they can be rectified quickly.

1. **Organization and Responsibility**

The distribution list for this QA plan is as follows: [modify/delete those portions of the following as needed; the list should include the names of all individuals who have responsibilities to provide radon services; identify which individual has ultimate authority to stop unsafe or inadequate work DELETE THIS HIGHLIGHTED SECTION WHEN COMPLETE]:

* + [NAME], President/Owner, [if appropriate, IDPH certification number];
  + [NAME], Mitigation Quality Assurance Officer, [if appropriate, IDPH certification number] [Note, if there is only one employee who is also the owner and sole-proprietor, that individual is the QA Officer and he or she is responsible for ALL aspects of the quality process];
  + [NAME], Sales Team Leader, [if appropriate, IDPH certification number]
  + [NAME], Inventory Control Manager, [if appropriate, IDPH certification number]
  + [NAME], Design/Mitigation Leader, [IDPH certification number]
  + [NAME], Mitigation Specialist, [IDPH certification number]
  + [NAME], Mitigation Specialist, [IDPH certification number]
  + [NAME], Mitigation Specialist, [IDPH certification number]
  + [NAME], Measurement Specialist, [IDPH certification number]

The President/Owner supervises all operations and enforcement of Standard Operating Procedures and Quality Assurance program details.

The Quality Assurance Officer will be responsible for:

* implementing the provisions of the Quality Assurance Program,
* reporting any changes in this program to the Iowa Department Health, and
* scheduling all continuing education classes for certified mitigation staff as required by the Iowa Department of Public Health.

1. **Standards of Practice**

[Company Name] agrees to conduct all radon mitigation work in accordance with the protocols and standards referenced by the Iowa Department of Public Health as established by the U.S. Environmental Protection Agency (EPA) and American Society of Testing and Materials International (ASTM) and the quality assurance and quality control guidelines described therein, in addition to other codes such as the National Electrical Code, National Fuel Gas Code and local building codes and ordinances:

* 1. Radon Mitigation Standards, EPA 402-R-93-078, October 1993 (Revised April 1994), U.S. Environmental Protection Agency, Washington DC
  2. Standard Practice for Radon Mitigation Systems in Existing Low-Rise Residential Buildings, ASTM E2121-2013, American Society of Testing and Materials, West Conshohocken, PA

It is understood that per IAC 641--44.3(4) *c.* all “shoulds” in the above RMS documents shall be “shalls” according to department standards.

1. **General Practices**

[Company Name] is committed to designing and installing radon control systems that seek to reduce indoor radon concentrations below the U.S. Environmental Protection Agency’s national action level of 4 pCi/L.

We further pledge to design and recommend systems that are cost-effective, energy efficient and durable for the life of the structure and not create conditions that may adversely affect the health and safety of occupants and the public.

[Company Name] will provide the following types of active soil depressurization (ASD) radon mitigation system installations:

* Active Sub-Slab Depressurization (SSD)
* Sump pit depressurization (SPD)
* Drain tile depressurization (DTD)
* Hollow block wall depressurization (BWD)
* Submembrane depressurization (SMD)

The appropriate section of the EPA and ASTM E2121 Radon Mitigation Standards will be followed for installation of the above mentioned mitigation system types.

[COMPANY NAME] will ensure the following is done according to IAC 44.3(5) unless the building owner waives any of the procedures on the form Found in Appendix A, before the mitigation process has started:

1. Ensure that each building is tested for radon levels before and after mitigation work is performed. Such tests shall be of sufficient type, duration and consistency and shall be performed at such times and under such ventilation conditions as to allow for comparison of before and after mitigation radon levels.
2. Premitigation and postmitigation radon tests shall be performed independently by a measurement specialist who is not employed [COMPANY NAME] who performed the mitigation.
3. Postmitigation radon tests shall be started no sooner than one day after mitigation is completed.

[The above section should be amended to explain how your company will comply with the post testing requirements, employee certified as an IA measurement specialist conducts test, you will hire a measurement specialist to perform test, you will provide a test kit, etc.]

Per Iowa Administrative Code 641—44.5 9., a credentialed person cannot accept compensation for installing ineffective radon remedies or for not dropping radon levels below 4 pCi/L in the area or level of the building where a radon mitigation system was installed.

[COMPANY NAME] employees will not disclose to any other person, except to the department or its agents, the addressee or owner of a nonpublic building, the radon levels present in the building or abatement measures needed or performed, unless the building owner waives this right of confidentiality in writing, on the form shown in Appendix A.

All equipment used will meet or exceed EPA RMS and ASTM E2121 protocols. Name brands used will depend on availability, quality and price.

Client Contact

The following general practices are required for all contacts between [Company Name] and clients.

The initial contact with a client, shall review any available results from previous radon tests to assist in developing an appropriate mitigation strategy. In cases where testing has not been done or where testing has been improperly done, the potential client shall be advised to have testing completed prior to mitigation either by doing it themselves and signing the waiver outlined in section 9 or by hiring an IDPH certified measurement specialist.

[Company Name] staff will refer the client to U.S. EPA’s “A Citizen's Guide to Radon" for interpreting indoor radon test results and the health risk associated with the radon level found in the building and to the U.S. EPA’s "Consumer's Guide to Radon Reduction" which provides advice on actions to take to reduce indoor radon levels.

[Reference any forms that will be used and include a copy as an appendix.]

Temporary Systems

When delays in the installation of a permanent radon control system are unavoidable due to building conditions or construction activities, and a temporary system is installed, a [Company Name] representative will inform the client about the temporary nature system.

A label that is readable from at least three feet shall be placed on the system. The label will include:

1. a statement that the system is temporary and that it will be replaced with a permanent system within 30 days.
2. include the date of the installation, installer name, phone number, and Iowa Radon Mitigation Specialist certification number,

Exception: the 30 day limit on use of a temporary mitigation system may be extended in cases where a renovation or change in building use necessities a delay in installation of a permanent mitigation system that is optimized to the new building configuration or use. The appropriate state or local building official or radon program official should be notified when this exception is being applied.

Worker Safety

[COMPANY NAME] will follow an established written Worker Protection Plan (WPP). The WPP includes sections on reducing radiation exposure caused by radon and its progeny for workers who install and repair radon mitigation systems. The goal for workers is to reduce exposures to radon and its progeny to levels as low as reasonably achievable (ALARA).

1. **Building Investigation**

A thorough visual inspection of the building prior to initiating any radon mitigation work will be conducted. The inspection will identify any specific building characteristics and configuration (e.g. large cracks in slabs, exposed earth in crawlspaces, open stairways to basements) and operational conditions (e.g. continuously running HVAC systems or operational windows) that may affect the design, installation, and effectiveness of radon mitigation systems. As part of my inspection, clients will be asked to provide any available information on the building (e.g. construction specifications, pictures, drawings, etc.) that might be of value in determining the radon mitigation strategy.

To facilitate selection of the most effective radon control system diagnostic testing will be conducted, such as the use of smoke generating devices, to assist in identifying and verifying suspected radon sources and entry points.

Diagnostic test will be performed to evaluate the existence of, or the potential for, back drafting of natural draft combustion appliances.

For any equipment used in performing diagnostic test(s) that has a required calibration frequency issued by the manufacturer, the calibration frequency for the equipment will be documented in the application.

If there are concerns about backdrafting potential at a particular site, the contractor shall recommend that a qualified person inspect the natural draft combustion appliances and venting systems for compliance with local codes and regulations. The contractor should recommend that the building owner bring any combustion appliance or venting system, found to be noncomplying, into compliance.

1. **System Design**

All radon mitigation systems shall be designed and installed as permanent, integral addition to the building.

All radon mitigation systems shall be designed to avoid the creation of other health, safety, environmental hazards to building occupant, such as back drafting of natural draft combustion appliances as described in the EPA and ASTM Radon Mitigation Standards.

All radon mitigation systems shall be designed to maximize radon reduction and in consideration need to minimize excess energy usage, to avoid compromising moisture and temperature controls and other comfort features, and to minimize noise.

All radon mitigation systems and their components shall be designed to comply with the laws, ordinances, codes, and regulations of relevant jurisdictional authorities, including applicable mechanical, electrical, building, plumbing, energy, and fire prevention codes.

1. **System Installation and Materials**

General

All components of radon mitigation systems installed in compliance with provisions of the EPA and ASTM E2121 Radon Mitigation Standards and shall also be in compliance with the applicable mechanical, electrical, building, plumbing, energy and fire prevention codes, standards, and regulations of the state or local jurisdiction.

All required licenses and permits, and display them in the work areas as required by local ordinances will obtained.

Where portions of structural framing material must be removed to accommodate radon vent pipes, material removed shall be no greater than that permitted for plumbing installations by applicable building or plumbing codes.

Where installation of a radon mitigation system requires pipes or ducts to penetrate a firewall or other fire resistance rated wall or floor, penetrations shall be protected in accordance with applicable building, mechanical, fire, and electrical codes.

When installing fans, joints or connections in other vent pipe materials shall be made airtight.

All radon mitigation systems will be designed and installed to avoid the creation of other health, safety, or environmental hazards to building occupants, such as

backdrafting/spillage from natural draft combustion appliances, constricting or blocking building exits with pipe runs, or degradation of fire rated assemblies with pipe, or cabling penetrations, or both.

When the selected mitigation technique requires use of sealant, caulks, or bonding chemicals containing volatile solvent, prior to starting work. The client will be will informed of the need to ventilate work areas during and after the use of such materials. Ventilation shall be provided as recommended by the manufacturer of the material.

Piping

All vent stack piping shall be solid, rigid pipe not less than 3-in. inside diameter (ID). The vent stack piping’s ID shall be at least as large as the largest used in the manifold piping. All manifold piping shall be rigid pipe not less than 3-in. ID. The manifold piping’s ID shall be at least as large as that used in any suction point. Manifold piping to which two or more suction points are connected shall be at least 4 in. ID. When installing manifold pipes to which three or more suction points need to be installed, the contractor may benefit from guidance in an industrial ventilation manual. All suction point piping shall be rigid pipe not less than 3-in. inside diameter.

As a minimum, all plastic radon system piping in depressurization systems shall be made of Schedule 20 PVC or ABS piping material. Schedule 40 piping is recommended for use in garages and in other internal and external locations subject to weathering or physical damage. Sump pit covers shall be made of durable plastic or other rigid material and designed to permit airtight sealing. To permit easy removal for sump pump servicing, the cover shall be sealed using silicone or other non-permanent type caulking materials or an airtight gasket recommended by manufacturer.

All joints and connections in radon mitigation systems using plastic vent pipes shall be permanently sealed with adhesives as specified by the manufacturer of the pipe material used.

To prevent re-entrainment of radon, the point of discharge from vents of fan- powered soil depressurization and block wall depressurization systems shall meet all of the following requirements:

1. be above the roof edge,
2. be ten feet or more above ground level,
3. be ten feet or more from any window, door, or other opening into conditioned spaces of the structure that is less than two feet below the exhaust point, and be ten feet or more from any opening into an adjacent building. The total required distance (ten feet) from the point of discharge to openings in the structure may be measured either directly between the two points or be the sum of measurements made around intervening obstacles.
4. Whenever possible, the exhaust point should be positioned above the highest eaves of the building and as close to the roof ridge line as possible.

All vent piping shall be installed, anchored and sealed according to recommended procedures in the EPA and ASTM E2121 Radon Mitigation Standards.

Radon Fan

Vent fans used in radon mitigation systems will be designed or otherwise sealed to reduce the potential for leakage of soil gas from the fan housing.

Radon vent fans shall be sized to provide the pressure difference and airflow characteristics necessary to achieve the radon reduction goals established for the specific mitigation project.

The location of the radon fan will be chosen to minimize the risk of radon entry into the living spaces of the building which could result from leaks in radon fan housings or in the vent stack piping above the radon fan. Radon fans used in active soil depressurization or block wall depressurization systems will be installed either outside the building or if inside the building they will be outside of occupiable space and above the conditioned (heated/cooled) spaces of a building. Preferred locations include places on the exterior of the building, unconditioned house and garage attics not suitable for occupancy, and other unconditioned house and garage locations not suitable for occupancy, which have no occupiable or conditioned spaces above them.

All seal requirements will be met as required in EPA and ASTM Radon Mitigation Standards.

Electrical Connections/Wiring

Wiring for all active radon mitigation systems shall conform to provisions of the National Electric Code and any additional local regulations. All electrical work will be performed by an appropriately licensed individual when required.

Any plugged cord used to supply power to a radon vent fan will be no more than 6 feet in length conform to provisions of the National Electric Code for both indoor and outdoor installations per ASTM 7.3.12.6.

Radon mitigation fans installed on the exterior of buildings will be hard-wired into an electrical circuit. Plugged fans shall installations shall comply with the provisions of ATEM E212 and the National Electric Code.

All mitigation system electrical components shall be U.L. listed or of equivalent specifications.

Sump Pits

When installing radon mitigation systems that use sump pits as the suction point for active soil depressurization, if sump pumps are needed, it is recommended that submersible sump pumps be used and the sump pit shall be appropriately sealed to allow access for pump replacement or maintenance.

Penetrations of sump covers to accommodate electrical wiring, water ejection pipes, or radon vent pipes shall be designed to permit airtight sealing around penetrations, using caulk or grommets. Sump covers that permit observation of conditions in the sump pit are recommended.

Crawl Spaces

Plastic sheeting installed in crawlspaces as soil-gas retarders shall be a minimum of 6 mil (3 mil cross-laminated) polyethylene or equivalent flexible material. Heavier gauge sheeting will be used when crawlspaces are used for storage, or frequent entry is required for maintenance of utilities.

Any wood used in attaching soil-gas retarder membranes to crawlspace wall or piers will be pressure treated or naturally resistant to decays and termites.

1. **Monitors**

All active soil depressurization and block wall depressurization radon mitigation systems will include a mechanism to monitor system performance and warn of system failure. The mechanism shall be simple to read or interpret and be located where it is easily seen or heard by building occupants and protected from damage or destruction. Typically this will be an approved U-tube type manometer.

Mechanical radon mitigation system monitors, such as manometer type pressure gauges, will be clearly marked to indicate the range or zone of pressure readings that existed when the system was initially activated.

1. **Labeling**

A system description label will be placed on the mitigation system, the electric service entrance panel, or other prominent location. This label will be legible from a distance of at least three feet and include the following information:

* "Radon Reduction System,"
* Installer name, phone number, and Iowa Radon Mitigation Specialist certification number,
* the date of installation, and
* an advisory that the building should be tested for radon at least two years or as required or recommended by state or local agencies.

In addition, all exposed and visible interior radon mitigation system vent pipe sections shall be identified with at least one label on each floor level. The label shall read, "Radon Reduction System"

The circuit breakers controlling the circuits on which the radon vent fan and system failure warning devices operate will be labeled "Radon System"

1. **Post Mitigation Inspection, Checks and Testing**

After installation of an active radon control system (e.g., SSD) the integrity of the fan mounting seals and all joints in the interior vent piping will be re-examined and verified.

After installation active radon mitigation system flows will be checked in system piping or ducting to assure that the system is operating as designed.

Immediately after installation and activation of any active (fan-powered) subslad depressurization or block wall depressurization system in buildings containing natural draft combustion appliances, the building shall be tested for back drafting of those appliances using a smoke puffer or equal device.

[COMPANY NAME] will make every effort to ensure that each building is tested for radon levels after mitigation work is performed. Such tests shall be of sufficient type, duration and consistency and shall be performed at such times and under such ventilation conditions as to allow for comparison of before and after mitigation radon levels.

The post mitigation test will be conducted no sooner than 24 hours nor later than 30 days following completion and activation of the mitigation system. This test may be conducted by the client, by a third party testing firm or by a company measurement specialist if the client has completed a waiver as outlined in Section 4.

To ensure continued effectiveness of the radon mitigation system installed, clients will be advised to retest the building at least every two years or as required or recommended by state or local authority. And that retesting is also recommended if the building undergoes significant alteration.

1. **Contracts and Documentation**

**11. A. Premitigation:**

[COMPANY NAME] mitigation staff will provide the client with the following written information prior to initiation of work:

1. The Mitigation Specialists Iowa certification number.
2. A statement that describes the planned scope of the work and that includes an estimate of the time needed to complete the work.
3. A statement describing any known hazards associated with chemicals use in or as part of the installation.
4. A statement indicating compliance with and implementation of all IDPH standards and those of other agencies having jurisdiction (e.g., code requirements).
5. A statement describing any system maintenance that the building owner would be required to perform.
6. An estimate of the installation cost and annual operating costs system.
7. The conditions of any warranty or guarantee.

[If a specific form is used for the Pre-inspection/bid reference it here and inslcude a copy as an appendix.]

**11. B. Postmitigation**

Upon completion of the mitigation project clients will be provided with an installation manual prepared according to section 18.5 of the EPA RMS, and section 7.7.3 of ASTM E2121. The manual will fully explain how the system operates, where all the components are located, what steps an owner must take to maintain or ensure the system is operating by including the following:

1. Any building permits required by local codes.
2. Copies of the Building Investigation Summary and floor plan sketch.
3. Pre- and post-mitigation radon test data.
4. Copies of contracts and warranties.
5. Copies of any waivers the building owner signed.
6. A description of the mitigation system installed and its basic operating principles.
7. A description of any deviations from the EPA RMS, ASTM E2121 or State requirements.
8. A description of the proper operating procedures of any mechanical or electrical systems installed, including manufacturer's operation and maintenance instructions and warranties.
9. A list of appropriate actions for clients to take if the system failure- warning device indicates system degradation or failure.
10. Installer name, telephone number and IDPH Radon Mitigation Specialist certification number and the phone number of the state radon office.

See Appendix B for an example Installation Manual.

1. **Record Keeping Requirements**

The following records will be kept and maintained of all radon mitigation work for 5 years or for the period of any warranty or guarantee, whichever is longer. These records will include and be available to the Iowa Department of Public Health upon request:

1. The address or location of the building.
2. The name and phone number of the owner(s) of the building where the radon mitigation is conducted.
3. A written description of each mitigation system and materials installed, diagnostic test results and cost of each system.
4. The name of the certified radon measurement specialist or technician used to perform radon or radon progeny testing before and after radon mitigation of a building. This requirement does not apply if the building owner has waived the testing requirement set forth in 641—subrule 44.3(5) and the mitigation specialist maintains a copy of the signed waiver.
5. The results of any initial or follow-up radon or radon progeny measurements performed and the measurement methods utilized. This requirement does not apply if the building owner has waived the testing requirement set forth in 641—subrule 44.3(5) and the mitigation specialist maintains a copy of the signed waiver.
6. The results of the postmitigation radon measurements performed, including method of measurement and all pertinent dates. This requirement does not apply if the building owner has waived the testing requirement set forth in 641—subrule 44.3(5) and the mitigation specialist maintains a copy of the signed waiver.
7. **Affirmations** [add additional name & signature blocks or complete a separate page for each employee responsible for mitigation work]

I do hereby agree to perform all mitigation projects for our clients in accordance with

this QAP and SOP on this \_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_.

(Day) (Month) (Year)

and

I shall shall comply with department standards and all the requirements as stated in EPA’s Radon Mitigation Standards (RMS) EPA 402-R-93-078, October 1993 (Revised April 1994) and ASTMI E2121, and understand per IAC 641—44.3(4)*c.* that all “shoulds” in the above documents shall be “shalls” according to department standards.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Printed Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signed

**APPENDIX A: Mitigation Testing Waiver**

[Replace with actual waiver to be used if different]

[COMPANY LETTERHEAD]

**BUILDING OWNER RADON MITIGATION SYSTEM RIGHTS AND/OR PROCEDURES WAIVER\***

**THIS WAIVER MUST BE COMPLETED BEFORE THE MITIGATION PROCESS HAS STARTED**

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the owner of the building located at

[Printed Name]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Iowa,

[Physical street address] [City]

understand the requirements and intent of IAC 641— 44.3(5) a. and/or *d.****\**** and agree to waive the following rights or procedures:

I hereby waive the confidentiality rights and authorize information regarding the address of this building, the radon levels present in the building or abatement measures needed or performed on this building to be disclosed to:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

[name of individual]

I hereby waive the requirement that the above building is tested for radon before and after mitigation work is performed.

I hereby waive the requirement that a measurement specialist as defined by IAC—44.2 has performed the premitigation test (i.e.: test was performed by the building owner using an approved test kit).

I hereby waive the requirement that a measurement specialist as defined by IAC—44.2 perform the postmitigation radon test and I will perform the test myself using a passive test kit either obtained by me or provided by the mitigator.

I hereby waive the requirement that a premitigation and/or postmitigation radon test is performed independently by a measurement specialist who is not employed by the same firm as the mitigation specialist performing the mitigation and allow

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[Company/Tester Name]

to perform  pre-mitigation and/or  post-mitigation testing and install a radon mitigation system.

Owner Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_

**\* Iowa Administrative Code 641--44.3(5)** states that a credentialed person shall:

*a. Not* disclose to any other person, except to the department or its agents, the addressee or owner of a nonpublic building, the radon levels present in the building or abatement measures needed or performed, unless the building owner waives this right of confidentiality in writing.

*d.* Ensure that each building is tested for radon levels before and after mitigation work is performed. Such tests shall be of sufficient type, duration and consistency and shall be performed at such times and under such ventilation conditions as to allow for comparison of before and after mitigation radon levels. Premitigation and postmitigation radon tests shall be performed independently by a measurement specialist or technician who is not employed by the same firm as the mitigation specialist performing the mitigation. Postmitigation radon tests shall be started no sooner than one day after mitigation is completed. This requirement is not binding if the building owner waives the procedure, on a form prescribed by the department, before the mitigation process has started.

**APPENDIX B: Example Installation Manual**

**[refer to Section 11.B for contents]**

**APPENDIX C: Worker Protection Plan (WPP)**

[This appendix can be removed or used for a different attachment if WPP not required for your company, i.e.: sole proprietor or if a separate, standalone, WPP document is available]

**Appendix D: ????**

[add examples of any other forms, reports, notices, label/stickers, etc. as separate appendices that you may be using for you mitigation work]