**Using this Template**

The following template can be used to help your organization develop a radon measurement plan. The intent of this template is to help your organization develop protocols for conducting radon measurements in accordance with AARST and ANSI guidelines. This template **cannot** be used as is – you must customize the template to meet the needs of your organization. We have made this template easy for you to customize by adding visual prompts that identify where your input is needed. These are identified by yellow highlighted, red text in the template. You may also change any of the text in the template to meet your organization’s needs – for example, department names, job titles and listed responsibilities and procedures.

*Example:*

<Company Name>

Radon Measurement Program

becomes

XYZ Companies

Radon Measurement Program

To remove the colored highlighting from your text, left click and drag your mouse over the yellow text and click on the highlighter button from the Font menu. To change the font color to black, select the text and click on the font color button.



To aid you in understanding the need to customize your program, several “Check Your Understanding” text boxes are also included throughout the template. After reading the information in the text box and adding the required information into the template, you may simply right click on the cross arrow box and select “cut.”

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| ***Disclaimer.*** *This sample safety program template cannot be used as is. You must customize the template to meet the needs of your organization. EMC does not guarantee that this template is or can be relied on for compliance with any law or regulation, assurance against preventable losses, or freedom from legal liability. We make no representations or warranties of any kind whatsoever, either express or implied, in connection with the use of this template. EMC will not be liable for your use of the template as customized by you. All safety programs and policies, including this template and the information you supply to complete it, should be reviewed by your legal counsel and/or risk management staff.* |

**<Company Name>**

**Radon Measurement Program**

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| ***Check Your Understanding.*** Radon is an odorless, colorless radioactive gas that occurs naturally in many areas of the country. Exposure to radon can cause lung cancer, even in non-smokers. Does your organization need to monitor for radon? While radon monitoring is currently not required by law, any organization can benefit from a formal approach to evaluating their buildings for radon. The purpose of radon testing is to identify locations that have elevated radon concentrations and to determine if radon mitigation is necessary to protect the health of current and future occupants. Because radon levels vary from room to room in many buildings, AARST/ASHRAE and EMC Insurance recommend testing all ground-level occupied rooms and all rooms above crawlspaces. |

**Revision History**

<Revision XX – November, 2015>

**Purpose and Scope**

The purpose of the <Company Name> Radon Measurement Program is to identify rooms that have elevated radon concentrations. The Program Administrator will oversee the monitoring and be responsible for data evaluation, recordkeeping and resampling if necessary. The Program Administrator, in conjunction with management, will also determine if radon mitigation is necessary to protect the health of current and future occupants.

This program focuses on short-term monitoring for radon. Key elements include:

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| * Identifying occupied rooms over crawl spaces or basements, slab on grade and/or below grade
 |
| * Establishing monitoring protocol for radon monitoring
 |

**Program Responsibilities**

**Management.** The management of <Company Name> will provide financial and leadership support to the Program Administrator as needed.

**Program Administrator.** The Program Administrator reports directly to senior management and is responsible for this program. All room testing and building HVAC environmental settings are coordinated under his/her direction. The Program Administrator will:

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| * Coordinate initial monitoring for radon in all applicable rooms
* Inform staff of dates and times of all monitoring, and of conditions necessary to monitor accurately
* Conduct annual evaluations to identify any new areas to be monitored
 |
| * Ensure that all follow-up monitoring is conducted in a timely manner
 |
| * Determine if an approved remediation contractor should be hired
* Ensure the remediation system is working prior to payment of the remediation contractor
 |
| * Maintain accurate records and provide documentation upon request to senior management
* Coordinate additional monitoring in rooms every five years or whenever floors have been disturbed
 |

**Employees.** All employees of <Company Name> will:

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| * Support the monitoring efforts by staying away from monitors
 |
| * Assist in maintaining closed conditions for the building during monitoring
 |

**Radon Testing: Selection, Monitoring and Mitigation**

The following radon assessments will be completed. This information will be used to identify rooms requiring radon monitoring, and provide general guidelines during monitoring.

**Radon Building Assessment**. The Program Administrator will conduct assessments of each building, to determine which rooms are frequently occupied (occupied > 4 hours per day) and which are on either the ground floor (floors in contact with the earth such as basement or on concrete slab) or over a crawl space. Buildings with soil in contact with half-walls on a second floor would also need to be tested. This information will be documented in **Appendix A**. Reassessments will be conducted every five years.

**Radon Monitor/Lab Selection.** <Company Name> has selected:

 <Insert radon testing provider name, address and contact information>

<Radon Testing Provider> has been approved by the state radon-regulating agency, and will be responsible for proper sample quality controls, monitoring deployment and collection, and evaluation of results.

All frequently occupied rooms on the ground floor, over a crawl space or over an untested ground floor room with air pathways from that room will be tested for radon. Ten percent of the rooms in upper floors will also be tested or at least one per floor, whichever is greater. Unoccupied rooms on the ground floor may be tested if they provide an air passageway to other rooms on the same or higher floors. Radon monitoring is to be conducted under “occupied, closed” conditions.

Closed conditions will begin at least twelve hours before deployment of the monitors, and consist of:

* Windows closed
* Doors closed, except when in use
* HVAC system running with normal schedule
* Bathroom fans running normally
* Kitchen fans operating as needed – normally
* Manufacturing ventilation operating as needed – normally

***Check Your Understanding.*** It is very important that the radon vendor selected be certified by the state where the work is to be performed, and that they follow a proper protocol for monitor placement and sample evaluation. All work should be performed in a manner consistent with *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings (MALB 2014 -* ANSI/AARST). This document can be located at www.radonstandards.us.

**Radon Mitigation.** If tested and retested samples indicate that a high level of radon (above the EPA action level of 4 pCi/L) is present in any room, mitigation will be performed by:

 <Insert state-credentialed radon mitigation specialist name, address and contact information>

After mitigation is completed, the room(s) that tested high will be retested within 30 days to evaluate the effectiveness of the mitigation. These rooms will then be placed on a two-year testing schedule until the results of four consecutive tests have been below 4 pCi/L.

**Periodic Program Review**

At least annually, the Program Administrator will conduct a program review to assess the progress and success of the program. The review will consider the following:

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| * Changes in room occupancy
 |
| * New building projects
 |
| * Follow-up monitoring where necessary
 |
| * Remodeling or changes to ventilation systems which might change pressures in the building, thereby changing radon levels
 |

The Annual Review Report form, found in **Appendix B**, will be used to document periodic reviews.

***Records Retention***

All records will be retained for <seven> years.

***Appendix A: Radon Building Assessment***

<Company Name>

Radon Building Assessment – Identifying Rooms to Be Monitored

<Building Name/Identifier>

|  |  |  |
| --- | --- | --- |
| **Room Number** | **Ground Contact\* (Yes/No)** | **Occupied\*\* (Yes/No)** |
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**To be included in testing protocol, both columns must indicate “yes.”**

\* In contact with soil, on a concrete slab or over a basement/crawl space

\*\*Occupied more than four hours per day

***Appendix B: Annual Evaluation Report***

|  |  |
| --- | --- |
| Date of Evaluation: | Evaluated By (list all present): |
| Written Program Reviewed: Yes No |
| Have any new buildings been constructed this year? Yes NoIf yes, has radon been measured in these buildings? Yes No |
| Have any buildings undergone changes to HVAC systems this year? Yes NoIf yes, list: |
| Are there any buildings due for 5-year monitoring?If yes, list: |
| Are there any buildings/rooms with mitigation systems due for 2-year monitoring?If yes, list: |
| Comments: *(Be sure to include information concerning penetrations through concrete floors or other work that might allow radon to change its migration path.)*  |