



Briefing Note Title:	Radon Gas – Testing Programme Update
Briefing Note of:	Housing Leeds Public Health (Adults & Health)
Date:	June 2024
Report of:	Housing Leeds
Report to:	EHC Scrutiny Board

Does this briefing note contain confidential or exempt information?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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1.0 Background Information:

- 1.1 In the home, the safe level of radon gas specified in the Ionising Radiation Regulations (IRR) is 200 Bq/m³ (Becquerels per cubic metre of air) as an annual average. This is referred to as the *Action Level*.
- 1.2 If radon levels exceed the Action Level, the UK Health Security Agency (UKHSA) advises that measures are put in place to reduce this level. This could include measures such as increased passive ventilation or the introduction of active, mechanical ventilation into the home.
- 1.3 The likelihood of a property being affected by high levels of radon is partially determined by the underlying geology in the region, as well as other contributing factors such as the way in which the property is designed and built e.g. heating & ventilation.
- 1.4 Following an assessment of the data available from the UKHSA and UKRadon.org, it was identified that a number of areas in Leeds were *potentially* at risk of exceeding the Action Level. As such, in October 2022, Housing Leeds commissioned UKHSA to undertake an Advanced Postcode List Radon Gas Risk Assessment of homes under its management.
- 1.5 The purpose of this commission was to gather a more detailed assessment of the potential risk posed by radon gas to the residents of Housing Leeds homes.
- 1.6 In July 2023 Housing Leeds and Public Health (Adults & Health) presented a paper to EHC Scrutiny Board detailing the outcome of the Advanced Postcode List Radon Gas Risk Assessment. The assessment covered 54,272 homes managed by Housing Leeds and BITMO.
- 1.7 The July 2023 report also provided EHC Scrutiny Board with the proposed physical testing programme to be undertaken in order to provide assurance that the level of risk is known and managed appropriately. This proposal was accepted by EHC Scrutiny Board.
- 1.8 A summary of the testing programme can be found in Section 2 of this report, which serves as an update to EHC Scrutiny Board on progress against this programme and provides detail of the results obtained to date.
- 1.9 The report also provides an update from LCC Public Health on any variance to cancer mortality rates in potential radon affected areas during the last 12 months.

2.0 Advanced Postcode List Radon Gas Risk Assessment

2.1 There are 6 risk classifications identified by UKHSA for homes in the UK:

Radon Class	%	Radon Class	%
1	0-1%	4	5-10%
2	1-3%	5	10-30%
3	3-5%	6	>30%

2.2 The % ratings represent the probability of properties in this class having a level of radon above the Action Level, e.g. a property in Class 2 has a 1-3% chance of having average radon levels above 200 Bq/m³.

2.3 The October 2022 advanced assessment identified 9,136 Housing Leeds homes with the **potential** to be Radon Affected, with 5,386 in the '1-3%' probability rating and 3,750 in the '3-5%' probability rating.

2.4 The remaining homes were classified as probability rating 'less than 1%'.

Radon Class	Probability Rating	Homes
1	0-1%	45,135
2	1-3%	5,386
3	3-5%	3,750
4-6	5% and above	0

3.0 Testing Programme Methodology:

3.1 Given the volume of properties identified in the postcode assessment, risk-based sample testing was approved in order manage the risk. The testing methodology is:

Phase	Details	Target Volume	Year
Phase 1	5% sample of 3-5% properties.	188 homes	Year 1-2
Phase 2	3% sample of 1-3% properties.	162 homes	Year 2-3
Phase 3	Subject to findings in Phases 1 & 2, further sampling requirements identified and implemented.	TBC	TBC

3.2 Testing is fully managed by Housing Leeds utilising UKHSA sourced equipment and methodologies. Two small radon monitors are installed in each property, one for the main living room and another for the main bedroom.

3.3 They stay in place for three months and are then returned for analysis. Radon levels are influenced by a number of variables including weather conditions and therefore levels vary from day to day. As such, the monitors remain in place for three months with average levels assessed in order to mitigate short term fluctuations.

3.4 From first point of contact with a customer to receipt of the results of testing, this period typically takes around 5 months.

3.5 If high levels of radon gas are found (>200 Bq/m³), action will be taken to reduce the levels. This may include measures such as additional ventilation.

4.0 Findings to Date

- 4.1 Following presentation of the testing methodology to EHC Scrutiny Board in July 2023, the initial actions required prior to physically testing properties included:
- Working with colleagues across Housing and Communications teams to develop letters, frequently asked questions (FAQs) and web page content associated with the testing programme. A link to the web page can be found [here](#).
 - Develop a communications strategy.
 - Develop a 'script' for contacting customers to ensure consistency of messaging and to ensure all key information is provided to the resident.
 - Develop processes for the testing programme.
 - Produce address lists and customer contact details for the Phase 1 testing programme.
- 4.2 The majority of initial customer contact has been via telephone. This allows for a 2-way conversation rather than contacting customers 'cold' via letter.
- 4.3 To date 335 homes have been contacted in order to seek participation in this non-compulsory testing programme. Residents receive a minimum of 3 contact attempts followed by a letter.
- 4.4 As at May 2024 (10 months into testing programme) a total of 109 homes have either been tested or are in the testing phase. Of these, 35 have completed the 3 month testing phase, analysis has been completed and results returned. 23 have had testing completed and results are pending (analysis underway with UKHSA) and 40 are in the testing period. 11 tests have been abandoned due to either residents changing their minds or monitors being lost or broken.

Status	N=
Testing & Analysis Complete	35
Testing Completed – Results Pending	23
Testing Ongoing	40
Testing Abandoned	11
Total	109

- 4.5 The 58 homes with testing completed represents 31% of the Phase 1 testing target (years 1 & 2). Upon receipt of the 40 additional tests currently in testing this increases to 52% of the Phase 1 target.
- 4.6 Of the 35 test results returned to date, results are summarised as follows:

Radon Level	N=
< 100 Bq/m ³	33
100 - 199 Bq/m ³	2
> 200 Bq/m ³	0
Total	35

- 4.7 As above, to date, **no** tests have returned levels above the Action Level of 200 Bq/m³.
- 4.8 Two tests have returned results above the Target Level of 100 Bq/m³ and are being retested for accuracy. It must be emphasised that this remains **below** the 200 Bq/m³ Action Level. Following retesting, further consideration will be given as to whether any intervention is required in these homes.

4.9 Results of the 35 completed tests to date can be found at Appendix 1 of this report.

5.0 Lessons Learnt

5.1 To date, only around 30% of residents contacted have permitted radon testing to take place. c.70% of residents contacted have refused the opportunity for testing to be completed in their home or have not returned contact following 3 contact attempts.

5.2 As a result, our communications, frequently asked questions and resident support approach continues to be refined in order to increase the sample size.

5.3 A range of methods have been utilised to try and enhance engagement, including Housing Leeds officers physically visiting homes and talking residents through the process, to increasing the volume of residents contacted by utilising telephone communication and posting monitors to residents.

5.4 Of the c.30% of residents where monitors are installed, a failure rate of around 10% has been experienced due to factors such as lost / damaged monitors or residents changing their minds about participation.

5.5 Housing Leeds continues to work with UKHSA and other Local Authorities to share best practice in order to continue to drive participation and we remain committed to achieving the volumes previously outlined.

6.0 Recommendations

6.1 EHC Scrutiny Board is asked to note the progress made in the Phase 1 testing programme.

6.2 Board is asked to support the continuation of the Phase 1 testing programme.

6.3 On completion of Phase 1 testing it is recommended that a further report is presented to EHC Scrutiny Board with full Phase 1 results, interpretation of these results and further recommendations for Board to consider.

[End of Paper]

Appendix 1 – Test Results to May 2024 (Anonymised)

UKHSA_id	Area	UKHSA Batch	Radon Result	Liv_Area	Bedroom
1590399	Middleton	COLeeds2	25	17	28
1590415	Middleton	COLeeds2	18	18	17
1590416	Middleton	COLeeds2	16	19	12
1590423	Middleton	COLeeds2	16	21	11
1590407	Middleton	COLeeds2	46	51	39
1590408	Middleton	COLeeds2	55	78	33
1590414	Middleton	COLeeds2	53	49	50
1590424	Middleton	COLeeds2	<10	<10	<10
1590430	Horsforth	COLeeds2	21	21	19
1590418	Middleton	COLeeds2	<10	<10	15
1590401	Middleton	COLeeds2	44	55	32
1590402	Middleton	COLeeds2	80	110	47
1590411	Middleton	COLeeds2	14	18	<10
1590419	Middleton	COLeeds2	<10	<10	<10
1590421	Middleton	COLeeds2	<10	<10	<10
1590426	Middleton	COLeeds2	11	15	<10
1591596	Middleton	COLeeds2a	<10	<10	<10
1590428	Morley	COLeeds2	53	59	43
1590400	Middleton	COLeeds2	40	45	33
1590406	Middleton	COLeeds2	<10	13	<10
1590403	Middleton	COLeeds2	150	120	150
1590427	Middleton	COLeeds2	20	20	19
1588320	Morley	COLeeds1	<10	<10	<10
1588322	Morley	COLeeds1	23	12	17
1588307	Morley	COLeeds1	130	82	83
1588310	Morley	COLeeds1	<10	<10	<10
1588311	Morley	COLeeds1	12	<10	11
1588317	Morley	COLeeds1	28	18	19
1588318	Morley	COLeeds1	15	10	10
1588319	Morley	COLeeds1	12	<10	<10
1588324	Morley	COLeeds1	46	26	33
1588326	Morley	COLeeds1	20	<10	16
1588305	Morley	COLeeds1	22	16	14
1588312	Morley	COLeeds1	<10	<10	<10
1588314	Morley	COLeeds1	33	26	18