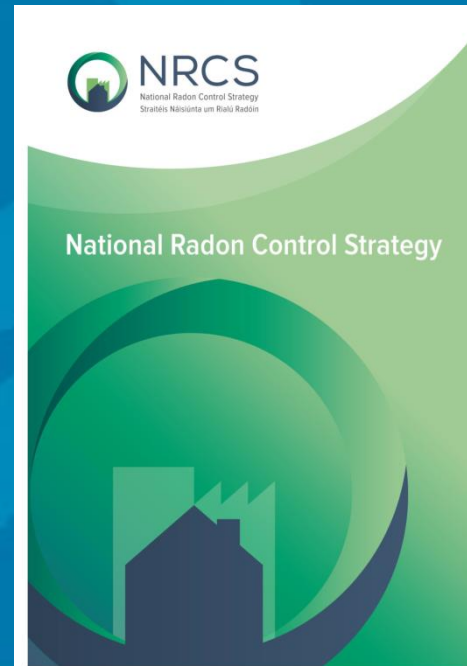


# NRCS Steering Group on Radon Prevention

David Fenton (Chair)



## Three actions originally assigned to the SG

- Action 4: Make recommendations to amend and strengthen technical guidance on radon prevention in new build
- Action 6: Develop short targeted training course for site staff on radon prevention
- Action 11: Research to assess the combined effectiveness of passive sumps and the sealing of the base of the building
- New Action: Gas permeability of hardcore material

# Steering group

- Representatives from:
  - EPA (David Fenton - Chair)
  - CCMA (William Purcell)
  - RIA (Tim O'Neill)
  - NSAI (Robin Byrne)
  - DECLG (Eamonn Smyth)
  - CIF (Robert Butler)
- Seven SG meetings have been held. Three more scheduled in June and July 2015
- Four separate meetings held with Aggregates Panel of NSAI.

## Action 4: Recommendations to amend and strengthen technical guidance on radon prevention in new build

- Agreement among the SG that the TGD-C could be shortened. E.G. remove the radon maps and background explanatory text on radon and RPII/EPA. The revised document could refer to trusted sources such as the NRCS website.
- TGD-C should clarify that a radon membrane must be  $> 0.46$  mm if being used as a dpc. (In line with Irish Standard 57).
- SG identified an issue on the new specification for hardcore in SR21 : 2014. (SR 21, among other things, sets out explicit guidance to limit the risks from reactive pyrite).
- Finding a solution to this became the priority for Q4 2104 and Q1 2015.

## The issue with SR21:2014 - Specification for hardcore

- SR21: 2014 allowed 22 – 50 % of aggregates to be < 4mm and allowed for the inclusion of fines down to 0.4 mm
- A radon sump is known to work well when the hardcore is permeable, post compaction with minimum fines. Under these conditions a sump should influence an area of 250 m<sup>2</sup> or 15 m from the sump
- The SG was concerned that the SR21:2014 could significantly reduce the effective area of the sump
- The issue was raised and resolved with the Aggregates panel of NSAI over a series of meetings with NSAI between Nov 2014 and April 2015

## The specification for hardcore in SR21:2014.

- SR 21:2014 was amended to include a suitably graded gas permeable unbound granular fill (hardcore) material is a coarse aggregate (4-40 mm) included to facilitate the free movement of gas within the hardcore layer
- The amended SR21 is currently out to public consultation until 3<sup>rd</sup> July 2015. NSAI (Your Standards Your Say)

## Action 6: Develop short targeted training course for site staff on radon prevention

- Development of the course material was directly undertaken by the SG due to their experience
- The course content is well advanced. The next meetings of the SG is devoted to finalising the content
- Drivers for attending the course are
  - the Building Control (Amendment) Regulations
  - the forthcoming establishment of a statutory register of builders (CIRI)

## Action 6: Develop short targeted training course for site staff on radon prevention

- EPA will own the course
- CIF are the preferred option to deliver a pilot by Q4 2015
- CIF can roll out the course as one of their suite of courses



## Action 11: Research to assess the combined effectiveness of passive sumps and the sealing of the base of the building

- This topic was identified as a Knowledge gap in the NRCS report
- Effectiveness of passive sumps is thought to be enhanced by appropriate sealing across the base of the building,
- The question is if there is a difference in the effectiveness of the passive sump if a radon membrane (meeting TGD-C and required only in High Radon Areas) vs a damp proof membrane (all other areas)

## Research : Gas permeability of Aggregate material

- This topic was identified by the SG through the meetings with NSAI Aggregates panel
- The current evidence is not definitive moreover it is not based on current commonly used Aggregate material (SR 21).
- Research on this topic is warranted

# EPA – STRIVE research

- The EPA facilitates environmental research through the Science, Research, Technology and innovation for the Environment (**STRIVE**)
- The two projects will be included in the STRIVE research call likely to go out in July