

RADON DISCHARGE LOCATIONS THAT HAVE SHOWN TO AFFECT INTERIOR RADON CONCENTRATIONS NEGATIVELY

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The 2016 International Radon Symposium™

EPA (1993)

RRNC

ASTM 1465-08a

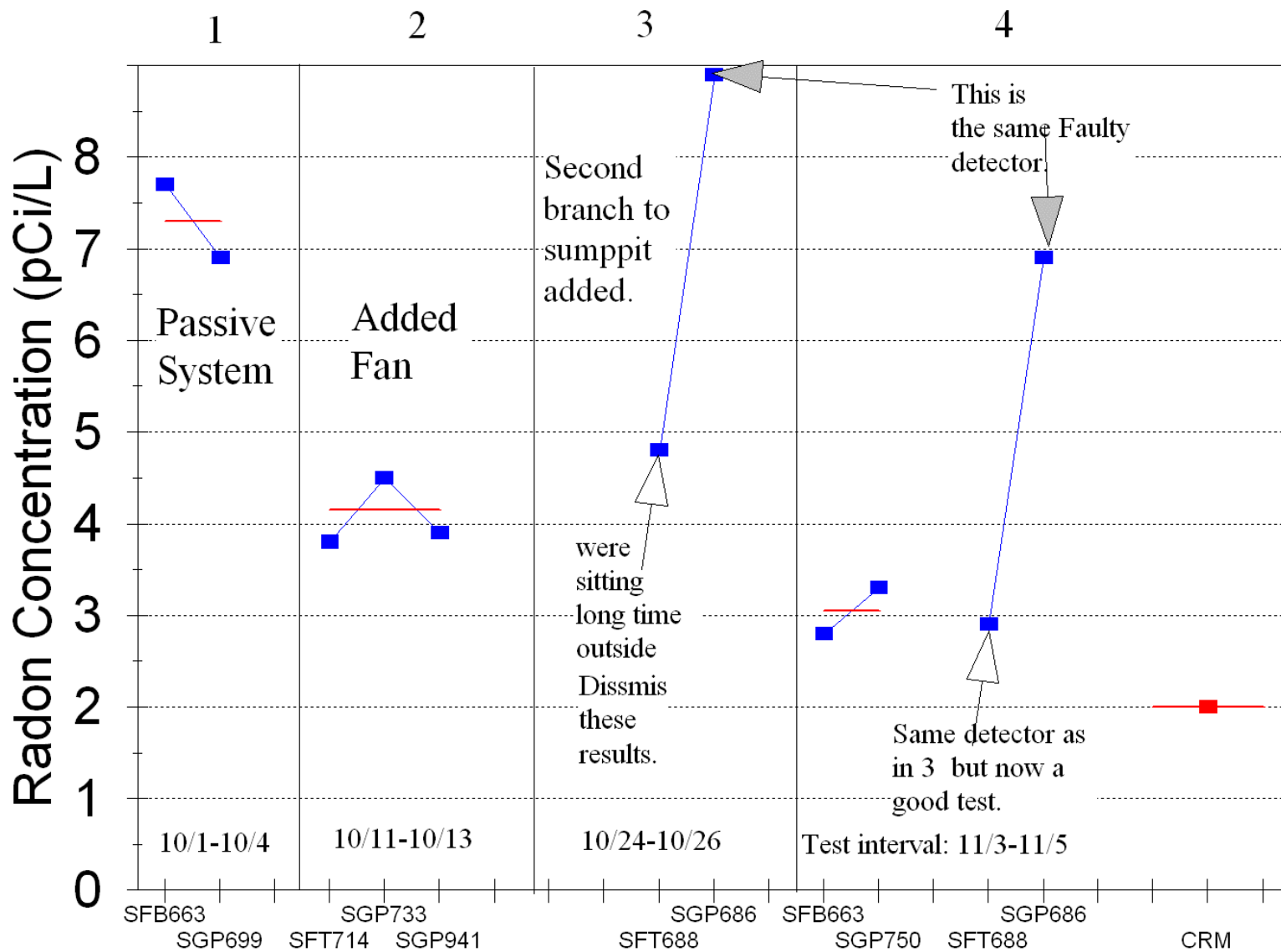
ASTM E2121-13

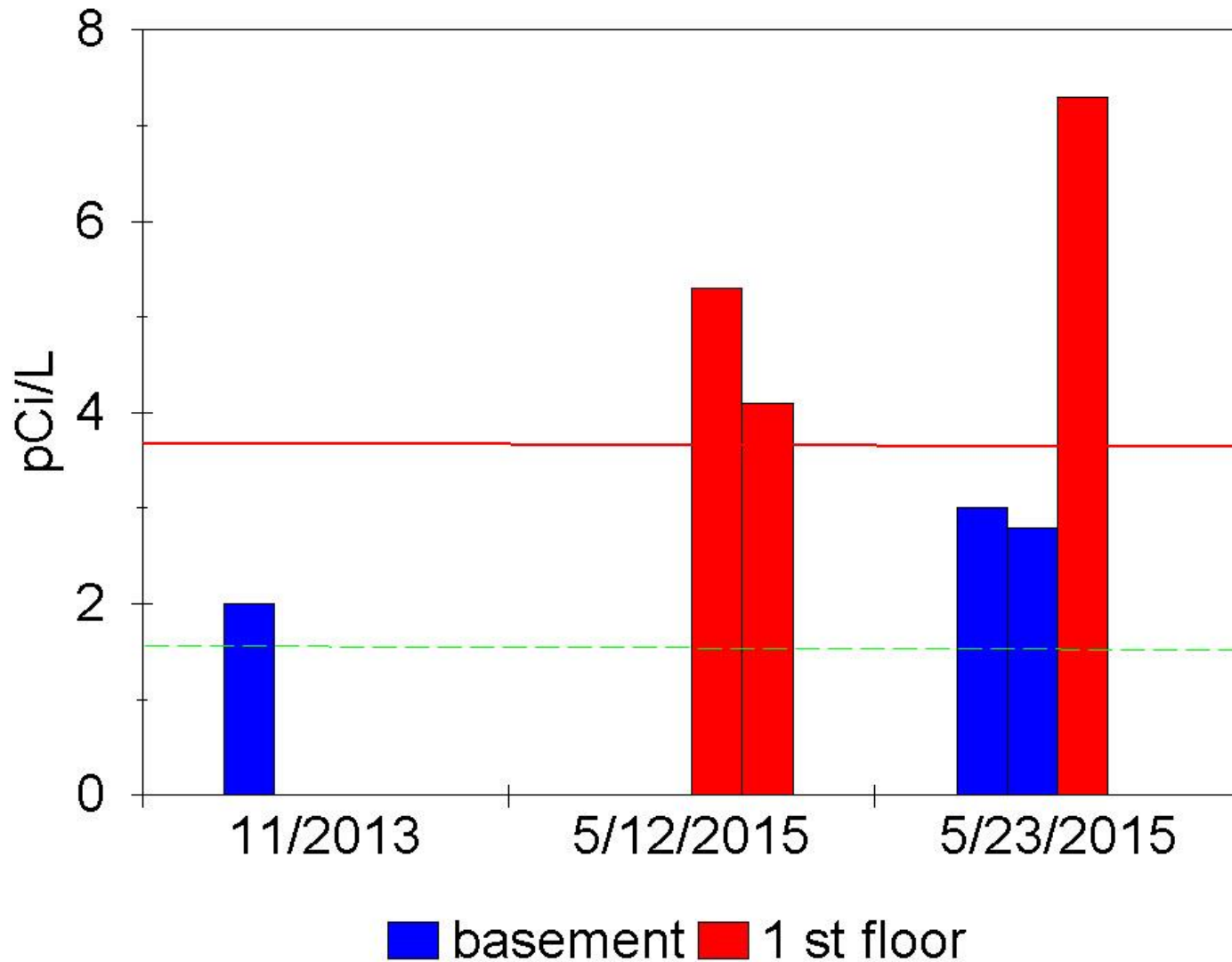
ASD-RMS June 2006

RRNC 2.0 ANSI/AARST 2012

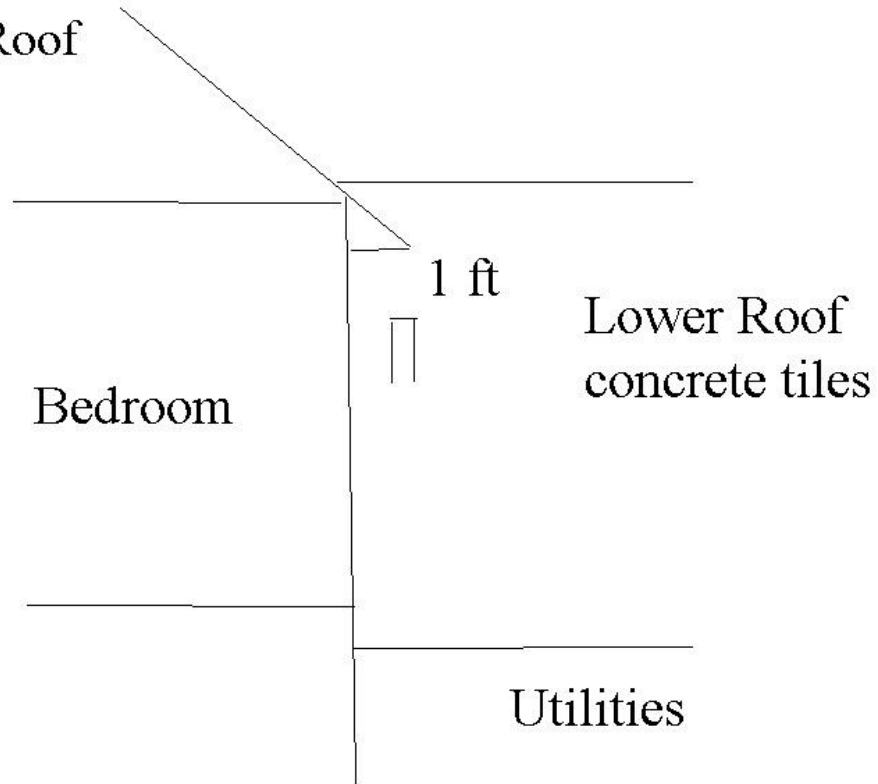
- Many contractors can be involved to do it, partially right.
- Responsibility to do it right increases when one company subcontracts for all radon (custom homes). Spec homes in large quantities is different.







Upper Roof



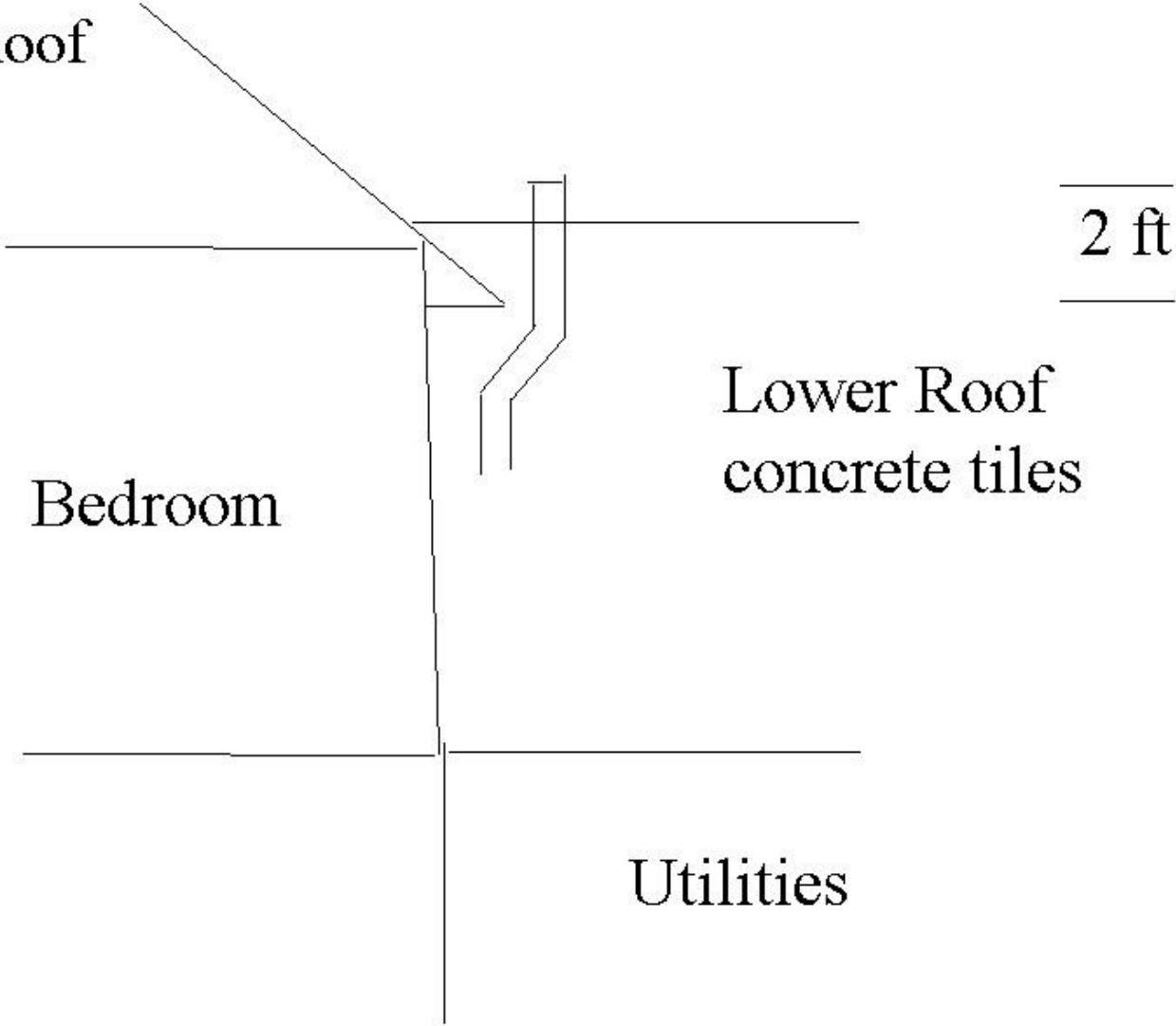
Bedroom

1 ft

Lower Roof
concrete tiles

Utilities

Upper Roof

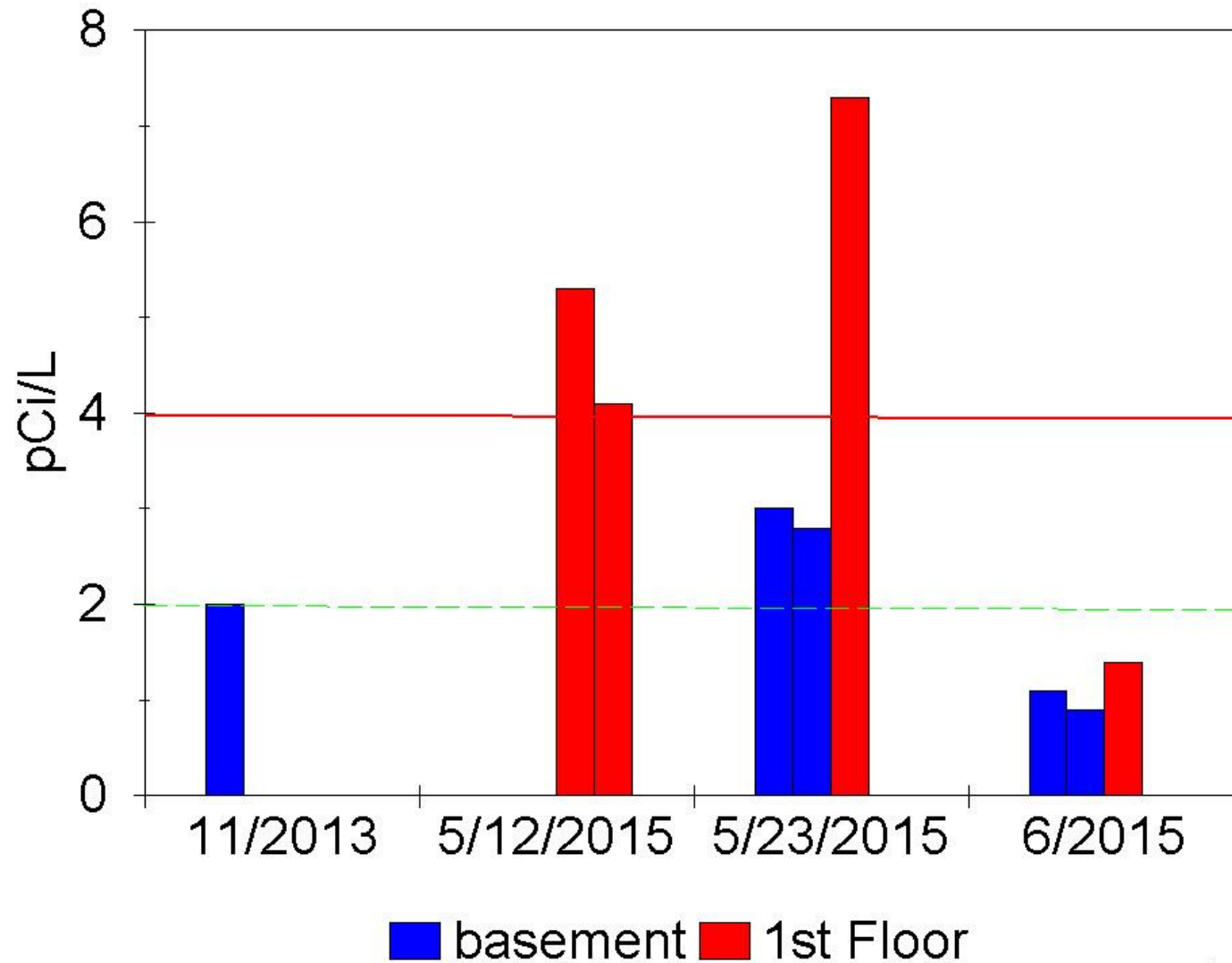


Bedroom

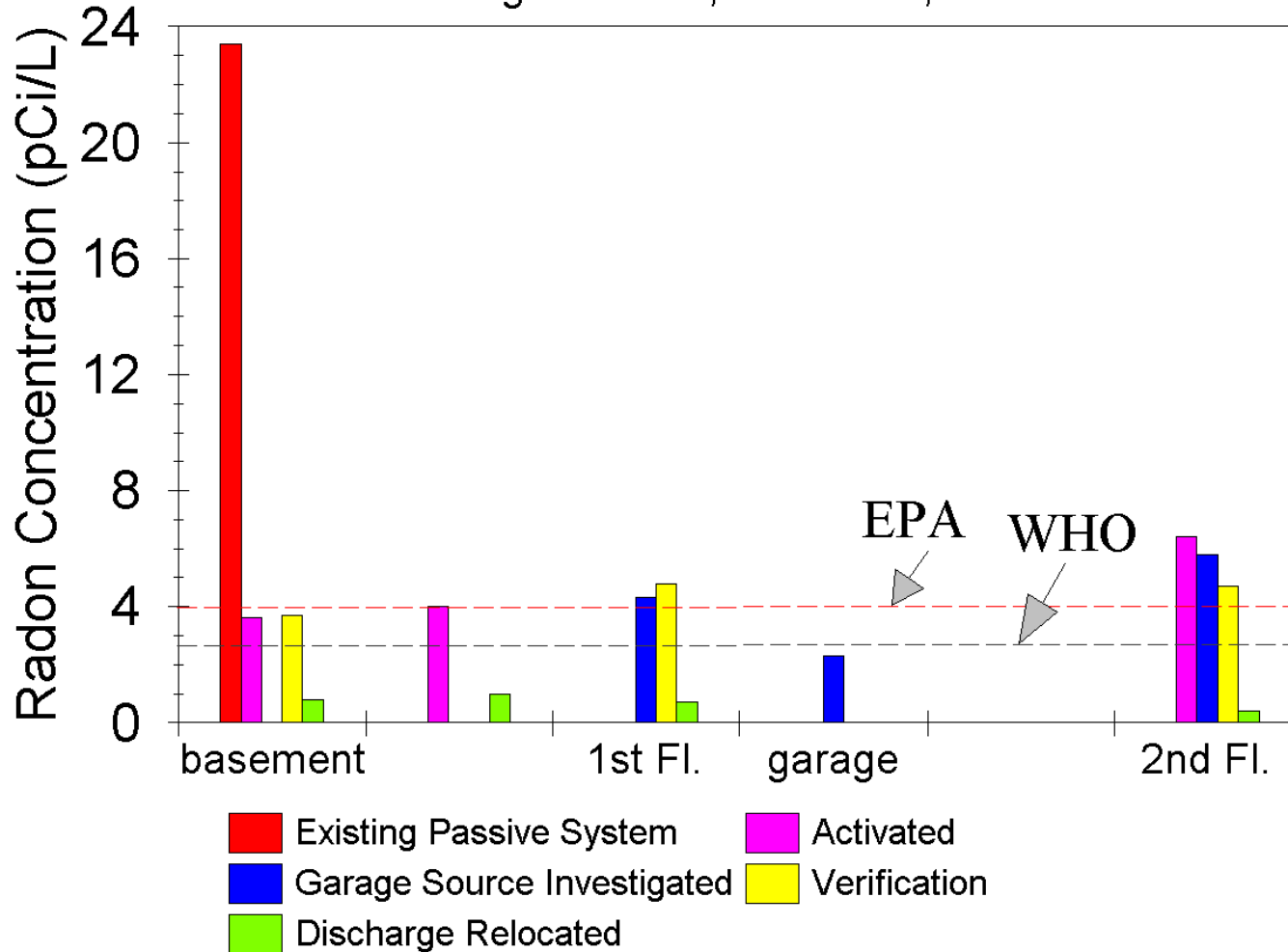
Lower Roof
concrete tiles

2 ft

Utilities



Radon reentrainment into house due to discharge location, Livermore, CO



Why not follow gas burning appliance rule for the discharge location of radon?

- Is radon discharge worse than flue gasses?

(i.e. 3 feet distance from re-entry openings.)

Differences between flue gasses and radon

	Flue gasses	Radon
Time	Intermittently on	All the time on
Smell	Stink, when on	Odorless
Sound	Very Noisy, when on	Part of low background noise
Visual	Cloud of smoke spewed out, when on	Transparent
Temperature	Warm or hot air, when on	Cool
Deadliness	CO when starting, CO ₂	Radioactivity

(1) Radon is discharged all the time and stealthy.

(2) Flue gasses when present are very noticeable.

If you were writing the standard for the discharge location:

-Which one should the public be protected from by good writing of standards?

-Which one could standard writers make the argument that public stays out of its way when dangerous, because it is easily noticeable?

-Which Standard writing group needs to show extra due diligence because their gas is not noticeable?



Reminders/Lessons Learned

- Soffit vents are entry openings, sucking in air with radon.
- A large RPD of two simultaneous measurements with integrating devices may be caused by large variations during the exposure. It does not always have to be a faulty test device or tampering with devices.
- If you find variable radon results when discharge locations are near (or under) a soffit due to a bad RRNC installation, save yourself the time and relocate the discharge. (Canadian Standard?)
- When in doubt, measure radon upstairs as well.

CONCLUSION:

- Extra due diligence required from the radon community compared to standard writing community for flue gas discharges, because radon discharge gas is not noticeable.

When no measurements are done it is easy to think it's o.k.

