

Portland Housing Authority's Lesson Multifamily Housing And Vulnerable Populations

10-2023

Vulnerability

- Public housing participants are especially vulnerable. The same level of radon exposure is more likely to cause lung cancer in a smoker than a non-smoker, and smoking is roughly twice as prevalent among adult public housing tenants as the general population.
- Risk of lung cancer in children resulting from exposure to radon may be almost twice as high as the risk to adults exposed to the same amount of radon.
- If children are also exposed to tobacco smoke, the risk of getting lung cancer increases at least 20 times.
- Cost/Investment

Background

- 2013 [HUD notice](#) - HUD does not have comprehensive requirements and provides no specific funding to pay for the work.
- 2017 Safety department was created in our organization
- 2017 as we were doing major rehabs in our properties (RAD/Section 18), testing was required by investors. the first RADON test was sent to safety department to provide instructions on how to keep employees safe.
- 2017 (Aug) First policy was created following OSHA general duty clause “*Employers have the responsibility to provide a safe and healthful workplace that is free from serious recognized hazards*”

Background

- 2018 (July) Policy and procedures were created to address resident and staff safety,
- 2019 [Cancer Cloud](#) Oregonian article by Brad Schmidt
- 2023 (Jan) Oregon Health Authority state protocol is inspired by Home Forward procedures manual
- 2023 (July) FY2023 and FY2024 Radon Testing and Mitigation Demonstration for Public Housing NOFO
- 2023 HUD Departmental Policy for Addressing Radon in the Environmental Review Process



Barriers

- EPA Radon Zones [Map](#)
- Radon Risk [Map](#) in Oregon
- WHO 2.7 pCi/L Vs EPA 4.0 pCi/L action levels
- [EPA citizens guide to Radon](#)
- “Our properties are not in danger zone”
- “Our properties are new, recently build or rehabbed”
- “ We don’t have Radon in our state”
- Resident notification
- Trauma Informed practices

Policy

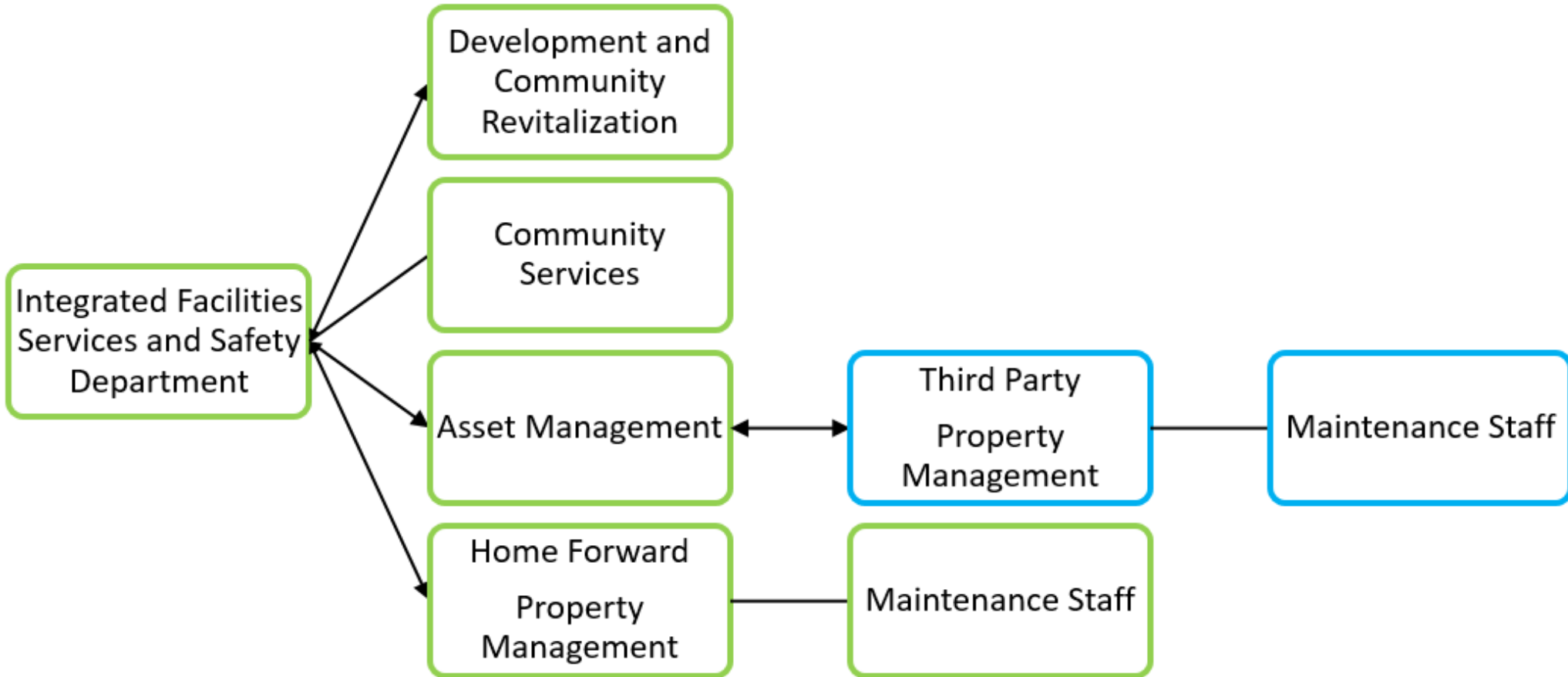
- It Home Forward's policy to test and re-test for radon in all of the properties that we own
- If a certified Radon Professional finds levels are above the levels recommended by the Environmental Protection Agency (≥ 4.0 pCi/L), a mitigation plan must be developed to ensure that mitigation is completed within 12 months by a radon professional until radon levels are below recommended levels (< 4.0 pCi/L).
- Radon resistant construction is required for all new construction
- Provide tenants and staff of Home Forward buildings with information about the health risks of radon and information related to the testing and mitigation of radon in Home Forward buildings.

Procedures

- Home Forward has committed to completing its effort to test for, and mitigate if needed, radon in all public housing by the end of 2020 and will complete the rest of the affordable housing portfolio by the **end of 2023**.
- Following completion of the initial phase of testing and mitigation, Home Forward will re-test properties in line with American National Standards Institute (ANSI) recommendations to ensure that radon levels remain below 4.0 pCi/L.

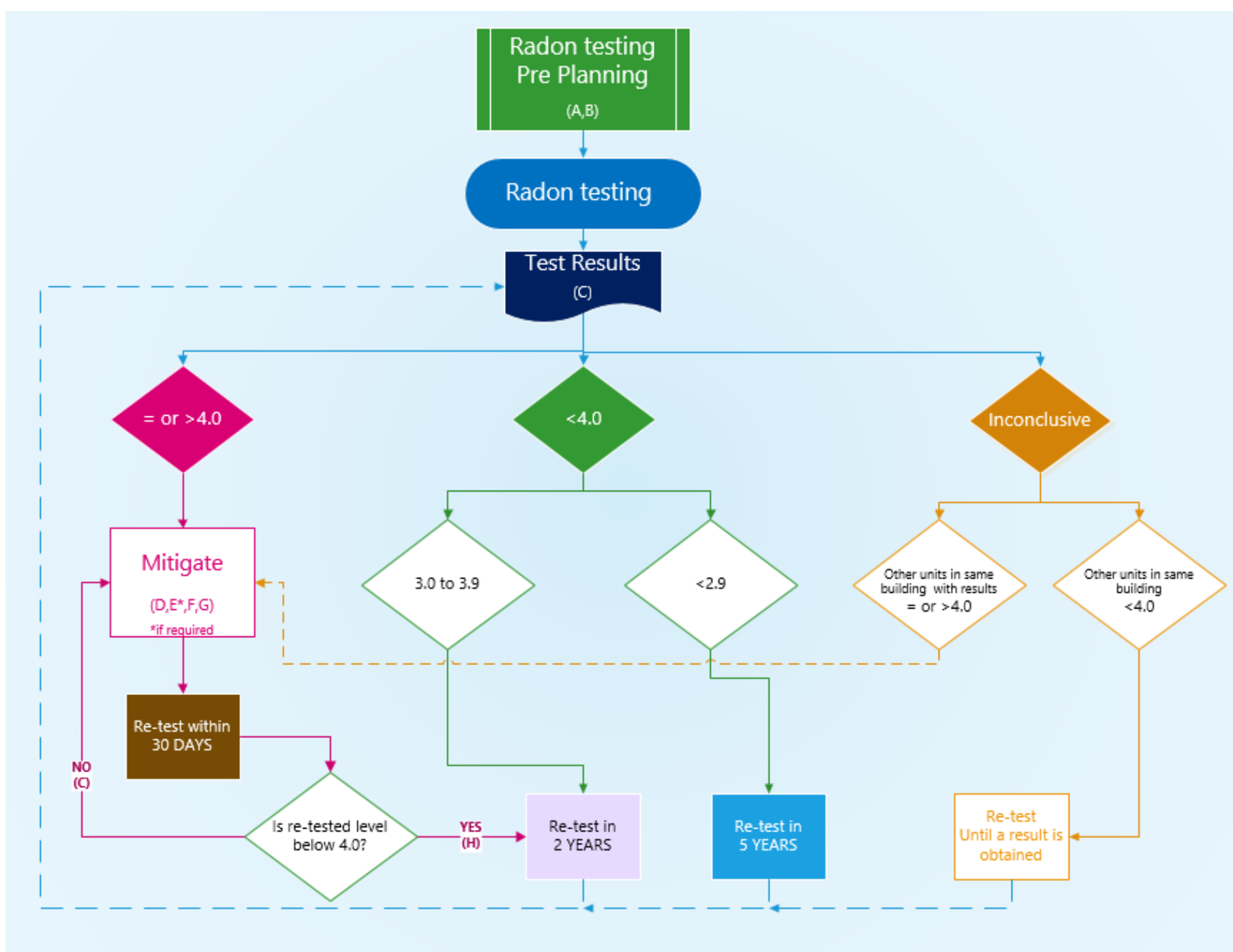
Operational Roles

Operational Chart



Testing

1 Each Floor	
10%	
100%	



Notification

[Radon Notification Flow Chart \(Staff\)](#)

[Radon Notification Flow Chart \(Residents\)](#)

Lessons learned

- Notification: language accessibility, communication, resident meetings/zoom meetings, translations.
- Trauma Informed Practices
- American National Standards Institute (ANSI) recommendations
- Hoarding/Storage issues combined with mental health

Testing and Mitigation

As of 10/10/23

- Tested 92 properties with 4,964 Units (3,237 tests)
- Average testing 1.6 pCi/L
- 278 units were above 4.0 pCi/L
- 37 of 92 properties had mitigation projects
- Highest Radon level found 112.5 pCi/L (2nd floor garden style)

Investment

Radon Overall cost (Home Forward)

\$ 272,740.91 (Test and Mitigation 2017-2022)

Average Testing \$1,730.04

Garden Style \$1,444.96

High Rise \$ 2,403.86

Average mitigation cost \$8,812.46

Garden Style \$7,359.10

High Rise \$12,591.22

Average cost per unit \$ 90.69

2,974 units tested and mitigated

Questions???

