



U.S. Department of Housing and Urban Development

Lead Hazard Control and Healthy Homes

Radon Testing and Mitigation Demonstration for Public Housing

FR-6500-N-80

03/28/2022

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Program Office:

Lead Hazard Control and Healthy Homes

Funding Opportunity Title:

Radon Testing and Mitigation Demonstration for Public Housing

Funding Opportunity Number:

FR-6500-N-80

Primary CFDA Number:

14.901

Due Date for Applications:

03/28/2022

Overview

The U.S. Department of Housing and Urban Development (HUD) issues this Notice of Funding Opportunity (NOFO) to invite applications from eligible applicants for the program and purpose described within this NOFO. Prospective applicants should carefully read all instructions in all sections to avoid sending an incomplete or ineligible application. HUD funding is highly competitive. Failure to respond accurately to any submission requirement could result in an incomplete or noncompetitive proposal.

During the selection process HUD is prohibited from disclosing 1) information regarding any applicant's relative standing, 2) the amount of assistance requested by an applicant, and 3) any information contained in the application. Prior to the application deadline, HUD may not disclose the identity of any applicant or the number of applicants that have applied for assistance.

For Further Information Regarding this NOFO: Please direct questions regarding the specific requirements of this Notice of Funding Opportunity (NOFO) to the office contact identified in Section VII.

Paperwork Reduction Act Statement. *The information collection requirements in this notice have been approved by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520). In accordance with the Paperwork Reduction Act, HUD may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection displays a valid OMB control number. Each NOFO will identify its applicable OMB control number unless its collection of information is excluded from these requirements under 5 CFR part 1320.*

OMB Approval Number(s):

2539-0015

I. FUNDING OPPORTUNITY DESCRIPTION.**A. Program Description.****1. Purpose**

The purpose of this NOFO is to provide funds to public housing agencies (PHAs) to conduct testing and as-needed mitigation of radon in the units that they manage and where applicable, to support the development of a plan for future testing and mitigation. The work supported through this NOFO will also provide HUD with important information on methods and costs for radon

testing and mitigation in public housing.

HUD's Office of Lead Hazard Control and Healthy Homes administers this program, which is aligned with HUD's Strategic Plan 2018-2022 (and HUD's 2012-2015 Environmental Justice Strategy). The Strategic Plan includes a provision to broaden the focus of environmental interventions in homes to address other non-lead poisoning concerns such as radon exposure. The Environmental Justice Strategy, which is in the process of being updated addresses environmental and human health issues among high-risk populations and disadvantaged communities including poor quality housing, children, and people with disabilities. For more information about HUD's Environmental Justice Strategy, refer to: <https://www.hud.gov/sites/documents/HUDEVJUSTSTRATUBF.PDF>). Additionally, compliance with environmental justice requirements under Executive Orders 12989 and 14008 calls for alignment with Justice 40, a government-wide effort that aims to deliver 40 percent of the overall benefits of relevant federal investments be delivered to disadvantaged communities through federal agencies through partnership with states and local communities to advance environmental justice and spur economic opportunity for disadvantaged communities. (<https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/>)

Radon is an odorless, colorless radioactive gas which is a decay product of elements in soil and rock and is present in every part of the country. Low levels of radon are found in the outside air; however, radon gas can move through the soil and enter buildings through small openings in the foundation or basement and become concentrated in the indoor air environment. When radon is inhaled it can damage DNA in lung tissue, and in so doing, increases the risk of developing lung cancer which is the primary adverse health effect from exposure to radon. The latency period or time for lung cancer to manifest can be many years. Moreover, the risk of developing lung cancer from exposure to radon is influenced by many factors including age during exposure, the duration of exposure, and the concentration of radon as a function of age and duration. It is also expected that children experience higher radon doses than adults due to differences in their lung shape and size and faster respiration rate: https://www.atsdr.cdc.gov/csem/radon/health_effects.html

The U.S. Environmental Protection Agency (EPA) estimates that approximately 21,000 people die in the U.S. annually due to lung cancer from radon exposure. (EPA 2003). Although any exposure to radon poses some risk, the EPA developed an action level of 4 pCi/L (picocuries per liter) of radon in indoor air at which action should be taken to lower radon levels (i.e., mitigate radon) (EPA 2012). The EPA estimates that approximately one out of every fifteen homes in the U.S. exceeds this action level. Because of differences in the amount of radon in underlying soil and rocks, the risk of having elevated radon levels in homes and other buildings varies throughout the U.S. In the early 1990's the EPA created a map of "radon risk" in the U.S. that identifies areas at the county level with higher and lower risk of buildings having elevated radon levels (designated as Zones 1, 2, and 3): <https://www.epa.gov/radon/epa-map-radon-zones> and displayed more specifically by state: <https://www.epa.gov/radon/state-maps-radon-zones> including radon contact information: [State Radon Contacts | National Radon Program Services \(sosradon.org\)](https://www.epa.gov/radon/state-maps-radon-zones) Some states have also developed their own radon maps that use radon test data that have become available since the publication of the EPA radon zone map.

Applicants are advised to contact their respective state radon contact to get additional information on specific state radon programs and state radon maps. Because of the limited level of funding available through this NOFO, HUD is targeting PHA properties in EPA Zones 1 and 2 (or equivalent based on State radon maps) but is allowing for applications for properties in Zone 3 if certain conditions are met (see Section III.F.1.)

The EPA estimates that approximately 1 in 15 homes (~ 7%) in the U.S. have elevated radon levels. Properties in Zone 1 areas would, on average, be expected to have a higher percentage of elevated radon units (e.g., 25%). In multifamily buildings, this applies primarily to ground contact units, which have a much higher risk of elevated radon than upper floor units. The national standard for radon testing in multifamily buildings (ANSI/AARST standard MAMF-2017) requires testing of 100% of ground contact units and 10% of units on upper floors. This testing protocol is supported by a HUD-funded study (Kitto et al. 2021) that analyzed radon testing results from multifamily properties in 29 states. Overall, 15% of all units included in the study had elevated radon levels. The researchers concluded that 100% sampling of ground contact units was required to achieve 95% confidence that no unit will have radon levels greater than or equal to 4 pCi/L in buildings with up to 20 units.

National practice standards for radon testing and mitigation have been developed with EPA support, by the American National Standards Institute and the American Association of Radon Scientists and Technologists (ANSI/AARST). Standards have been developed for single family homes, and multifamily and large buildings, and can be viewed at no cost or purchased on the ANSI or AARST websites: <https://www.epa.gov/radon/radon-standards-practice>.

Costs for radon testing and mitigation vary for single and multifamily housing and depend on building characteristics and location. Current industry estimates include radon testing costs of \$100 to \$275 per unit for single family housing and \$50 to \$80 per unit for multifamily housing (Hoylman, 2021). Estimates for per unit mitigation costs range from \$1,500 to \$3,000 and \$2,500 to \$4,000 for single and multifamily housing, respectively. Average mitigation costs for multifamily units would be lower when collateral mitigation is considered (i.e., when mitigation of radon in one unit is also effective in mitigating radon in adjacent units). These mitigation costs include initial diagnostic testing and the creation of a final report with an operations and maintenance plan. Operation (e.g., electrical use for fan) and maintenance costs also vary but are estimated at approximately \$168/year for operation and an average of \$110/year for maintenance.

HUD participated in an EPA-led interagency effort to increase federal agency efforts to address radon in their programs, with goals outlined in the Federal Radon Action Plan (FRAP), published in June 2011: <https://www.epa.gov/radon/federal-radon-action-plan-frap>. As part of that effort, HUD's Office of Public and Indian Housing (PIH) published a Notice (PIH 2013-06) stating that "PHAs are strongly encouraged to proactively plan and complete radon testing and follow-up with mitigation strategies, if possible, especially when excessive radon levels are present." The federal agency efforts outlined in the FRAP were followed by a public/private partnership (which includes HUD) that produced the National Radon Action Plan (NRAP), which set a goal to save lives by increasing radon testing, mitigation, and radon-resistant new construction in the U.S.: <https://www.epa.gov/radon/national-radon-action-plan-strategy-saving-lives>

For additional information on radon, please refer to Appendix A.

This NOFO represents a continuation of HUD's support to public housing agencies (PHAs).

2. Changes from Previous NOFO.

This is a new NOFO.

3. Definitions.

a. Standard Definitions

Affirmatively Furthering Fair Housing (AFFH). Affirmatively Furthering Fair Housing (AFFH) means taking meaningful actions, in addition to combating discrimination, that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics. Specifically, affirmatively furthering fair housing means taking meaningful actions that, taken together, address significant disparities in housing needs and in access to opportunity, replacing segregated living patterns with truly integrated and balanced living patterns, transforming racially and ethnically concentrated areas of poverty into areas of opportunity, and fostering and maintaining compliance with civil rights and fair housing laws. The duty to affirmatively further fair housing extends to all of a program participant's activities and programs relating to housing and urban development.

Assistance Listings means a unique number assigned to identify a Federal Assistance Listing, formerly known as the CFDA Number.

Federal Financial Assistance means assistance that entities received or administer in the form of:

- 1) Grant;
 2. Cooperative agreements (which does not include a cooperative research and development agreement pursuant to the Federal Technology Transfer Act of 1986, as amended (15 U.S.C. 3710a));
 3. Loans;
 4. Loan guarantees;
 5. Subsidies;
 6. Insurance;
 7. Food commodities;
 8. Direct appropriations;
 9. Assessed or voluntary contributions; or
 10. Any other financial assistance transaction that authorizes the non-Federal entity's expenditure of Federal funds.
- b. Federal Financial Assistance does not include:
1. Technical assistance, which provides services in lieu of money; and
 2. A transfer of title to federally owned property provided in lieu of money, even if the award is called a grant.

Authorized Organization Representative (AOR) is the person authorized to submit applications on behalf of the organization via Grants.gov. The AOR is authorized by the E-Biz point of contact in the System for Award Management. The AOR is listed in item 21 on the SF-424.

Consolidated Plan is a document developed by states and local jurisdictions. This plan is completed by engaging in a participatory process to assess their affordable housing and community development needs and market conditions, and to make data-driven, place-based investment decisions with funding from formula grant programs. (See 24 CFR part 91 HUD's requirements regarding the Consolidated Plan and related Action Plan).

Contract means, [for the purpose of Federal financial assistance](#), a legal instrument by which a recipient or subrecipient purchases property or services needed to carry out the project or program under a Federal award. For additional information on contractor and subrecipient determinations see 2 CFR 200.331.

Contractor means an entity that receives a contract as defined in 2 CFR 200.1.

Deficiency is information missing or omitted within a submitted application. Examples of deficiencies include missing documents, information on a form, or some other type of unsatisfied information requirement (e.g., an unsigned form, unchecked box.). Depending on specific criteria, deficiencies may be either curable or non-curable.

- *Curable Deficiencies* may be corrected by the applicant with timely action. To be curable the deficiency must:
- Not be a threshold requirement, except for documentation of applicant eligibility;
- Not influence how an applicant is ranked or scored versus other applicants; and
- Be remedied within the time frame specified in the notice of deficiency.
- *Non-Curable Deficiencies* cannot be corrected by an applicant after the submission deadline.

Non-curable deficiencies are deficiencies that, if corrected, would change an applicant's score or rank versus other applicants. Non-curable deficiencies may result in an application being marked ineligible, or otherwise adversely affect an application's score and final determination.

DUNS Number is the nine-digit Dun and Bradstreet Data Universal Number

System identification number assigned to a business or organization by Dun & Bradstreet and provides a means of identifying business entities on a location-specific basis. OMB removed duplicate recipients based on recipient Data Universal Number System (DUNS) numbers, from Dun & Bradstreet (D&B). At this time all Federal financial assistance recipients are required to register for DUNS numbers.

E-Business Point of Contact (E-Biz POC) A user registered as an organization applicant who is responsible for the administration and management of grant activities for his or her organization. The E-Biz POC is likely to be an organization's chief financial officer or authorizing official. The E-Biz POC authorizes representatives of their organization to apply on behalf of the organization

(see Standard AOR and Expanded AOR). There can only be one E-Biz POC per DUNS Number.)

Eligibility requirements are mandatory requirements for an application to be eligible for funding.

Federal award, has the meaning, depending on the context, in either paragraph (1) or (2) of this definition:

(1)(i) The Federal financial assistance that a recipient receives directly from a Federal awarding agency or a subrecipient receives indirectly from a pass-through entity, as described in 2 CFR §200.101; or

- ii. The cost-reimbursement contract under the Federal Acquisition Regulations that a non-Federal entity receives directly from a Federal awarding agency or indirectly from a pass-through entity, as described in 2 CFR §200.101.
2. The instrument setting forth the terms and conditions. The instrument is the grant agreement, cooperative agreement, other agreement for assistance covered in paragraph (2) of the definitions of Federal financial assistance in 2 CFR §200.1, or the cost-reimbursement contract awarded under the Federal Acquisition Regulations.
3. Federal award does not include other contracts that a Federal agency uses to buy goods or services from a contractor or a contract to operate Federal Government owned, contractor operated facilities (GOCOs).
4. See also definitions of Federal financial assistance, grant agreement, and cooperative agreement.

Grants.gov is the website serving as the Federal government's central portal for searching and applying for Federal financial assistance throughout the Federal government. Registration on Grants.gov is required for submission of applications to prospective agencies unless otherwise specified in this NOFO.

Non-Federal Entity (NFE) means a state, local government, Indian tribe, Institution of Higher Education (IHE), or non-profit organization that carries out a Federal award as a recipient or subrecipient.

Point of Contact (POC) is the person who may be contacted with questions about the application submitted by the AOR. The POC is listed in item 8F on the SF-424.

Recipient means an entity, usually but not limited to non-Federal entities, that receives a Federal award directly from HUD. The term recipient does not include subrecipients or individuals that are beneficiaries of the award.

Small business is defined as a privately-owned corporation, partnership, or sole proprietorship that has fewer employees and less annual revenue than a corporation or regular-sized business. The definition of "small"—in terms of being able to apply for government support and qualify for preferential tax policy—varies by country and industry. The U.S. Small Business Administration defines a small business according to a set of standards based on specific industries. [{e-CFR Title 13-Chapter I – Part 121}](#)

Subaward means an award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a Federal award received by the pass-through entity. It does not

include payments to a contractor or payments to an individual that is a beneficiary of a Federal program. A subaward may be provided through any form of legal agreement, including an agreement that pass-through entity considers a contract.

Subrecipient means an entity, usually but not limited to non-Federal entities, that receives a subaward from a pass-through entity to carry out part of a Federal award but does not include an individual that is a beneficiary of such award. A subrecipient may also be a recipient of other Federal awards directly for a Federal awarding agency.

System for Award Management (SAM) means the Federal Repository into which an entity must provide information required for the conduct of business as a recipient. Registration with SAM is required for submission of applications via Grants.gov. You can access the website at <https://www.sam.gov/SAM/>. There is no cost to use SAM.

Threshold Requirements are an eligibility requirement that must be met for an application to be reviewed. Threshold requirements are not curable, except for documentation of applicant eligibility and are listed in Section III.D Threshold Eligibility Requirements. Similarly, there are eligibility requirements under Section III.E, Statutory and Regulatory Requirements Affecting Eligibility.

Unique Entity Identifier means the identifier required for SAM registration to uniquely identify business entities.

4. Program Definitions

EPA Map of Radon Zones: A map that was developed by the U.S. Environmental Protection Agency in 1993 to identify areas of the U.S. with the potential for elevated radon levels (see: <https://www.epa.gov/radon/epa-map-radon-zones>). Zones are defined as follows:

- Zone 1: counties with predicted average indoor radon screening levels greater than 4 pCi/L (picocuries per liter of air);
- Zone 2: counties with predicted average indoor radon screening levels of 2-4 pCi/L;
- Zone 3: counties with predicted average indoor radon screening levels less than 2 pCi/L.

Mitigation System: Any system designed to reduce radon concentrations in the indoor air of a building.

Multifamily Building: HUD defines a multifamily building as having five or more attached housing units. The national radon standards published by the American National Standards Institute and the American Association of Radon Scientists and Technologists (ANSI/AARST) defines a multifamily building as “a building having more than one attached dwelling or other occupied unit under the same ownership or designated maintenance or management authority.” (i.e., MAMF 2017 with 1/21 revisions).

Picocurie (pCi): One pCi is one trillionth of a curie (10^{-12}) or 0.037 disintegrations per second or 2.22 disintegrations per minute.

Picocurie per liter (pCi/L): A unit of concentration of radioactivity corresponding to 0.037 decays per second or 2.22 decays per minute in a liter of air.

Quality Assurance (QA): A complete program designed to produce results that are valid,

scientifically defensible, and of known precision, bias, and accuracy. Includes planning, documentation, and quality control (QC) activities.

Quality Control (QC): The system of activities to ensure a quality product, including measurements made to ensure and monitor data quality. Includes calibrations and backgrounds, duplicate, blank, and spiked measurements, inter-laboratory comparisons, audits, and other control activities.

Radon (Rn): A colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra-226) atoms. The atomic number is 86. Although other isotopes of radon occur in nature, in this document, radon refers to the gas Rn-222.

Radon Measurement (professional): Any state licensed or nationally certified person or entity that conducts radon testing for remuneration. A professional holds a current radon license from a state where radon testing services are regulated, or current national certification recognized by the state in which the test is being conducted. Or, if the testing is being conducted in a non-regulated state, then the professional should have current certification recognized by the non-regulated state.

Single Family Dwelling: HUD defines a single-family dwelling as a building containing one to four dwelling units. The national radon standards published by the American National Standards Institute and the American Association of Radon Scientists and Technologists (ANSI/AARST) defines a single-family dwelling as “A residence or home intended to house a single family and requiring discrete testing location(s).” (MAH 2019)

B. Authority.

The Radon Testing and Mitigation Demonstration Program for public housing is authorized and funded under Section 9(d) of the United States Housing Act of 1937 (1937 Act) (42 U.S.C. 1437g(d)) and the Consolidated Appropriations Act, 2021 (Public Law 116-260, approved December 27, 2020).

II. Award Information.

A. Available Funds

Funding of approximately **\$4,000,000** is available through this NOFO. Additional funds may become available for award under this NOFO, because of HUD's efforts to recapture funds, use carryover funds, or because of the availability of additional appropriated funds. Use of these funds is subject to statutory constraints. All awards are subject to the funding restrictions contained in this NOFO.

B. Number of Awards.

HUD expects to make approximately 15 awards from the funds available under this NOFO.

However, the estimated awards will depend on the number of eligible applicants, the requested amount, and other factors. For information on the methodology used to make award determinations under this NOFO, please see Section V.B, Review and Selection Process below.

C. Minimum/Maximum Award Information

Estimated Total Funding:

\$4,000,000

Minimum Award Amount:

\$150,000

Per Project Period

Maximum Award Amount:

\$600,000

Per Project Period

D. Period of Performance

The start date will be determined during the period of negotiations with successful applicants. The performance cannot exceed 36 months from the time of the award. The proposed period of performance should include adequate time for such project components as the hiring of new staff or identifying a licensed and certified contractor(s), all of which can potentially delay project start date.

Period of performance extensions for delays due to exceptional conditions beyond the grantee's control will be considered for approval by HUD in accordance with 2 CFR section 200.308(d) and (e) as applicable, and the Office of Lead Hazard Control and Healthy Homes (OLHCHH) Program guide (https://www.hud.gov/sites/documents/PGI_2013-03.PDF.) If a request is made and it is determined to be eligible and is approved by OLHCHH, the grantee will receive an extension of up to 12 months in length.

Estimated Project Start Date:

06/08/2022

Estimated Project End Date:

06/08/2025

Length of Project Periods:

36-month project period and budget period

Length of Periods Explanation of Other:

E. Type of Funding Instrument.

Funding Instrument Type:

G (Grant)

III. Eligibility Information.

A. Eligible Applicants.

25 (Others (see text field entitled "Additional Information on Eligibility" for clarification))

Additional Information on Eligibility

Public Housing Authorities (PHAs) with the legal authority to develop, own, modernize, and operate a public housing project in accordance with the 1937 Act are eligible. PHAs that are troubled are eligible for funding if the agency is in compliance with any current Memorandum of Agreement or Recovery Agreements.

B. Ineligible Applicants.

1. Tribes and tribally designated housing entities (TDHEs)
2. Nonprofit organizations.
3. Resident associations.
4. Individuals, foreign entities and sole proprietorship organizations.
5. State governments.
6. County governments.
7. City governments.
8. Indian Housing Authorities.

C. Cost Sharing or Matching.

This Program does not require cost sharing or matching.

D. Threshold Eligibility Requirements.

Applicants who fail to meet any of the following threshold eligibility requirements will be deemed ineligible. Applications from ineligible applicants will not be evaluated.

1. Resolution of Civil Rights Matters. Outstanding civil rights matters must be resolved before the application deadline. Applicants, who after review are confirmed to have civil rights matters unresolved at the application deadline, will be deemed ineligible. Their applications will receive no further review, will not be rated and ranked, and they will not receive funding.

- a. Applicants having any of the charges, cause determinations, lawsuits, or letters of findings referenced in subparagraphs (1) – (5) that have not been resolved to HUD’s satisfaction before or on the application deadline date are ineligible for funding. Such matters include:
 1. Charges from HUD concerning a systemic violation of the Fair Housing Act or receipt of a cause determination from a substantially equivalent state or local fair housing agency concerning a systemic violation of a substantially equivalent state or local fair housing law proscribing discrimination because of race, color, religion, sex, national origin, disability or familial status;
 2. Status as a defendant in a Fair Housing Act lawsuit filed by the Department of Justice alleging a pattern or practice of discrimination or denial of rights to a group of persons raising an issue of general public importance under 42 U.S.C. 3614(a);
 3. Status as a defendant in any other lawsuit filed or joined by the Department of Justice, or in which the Department of Justice has intervened, or filed an amicus brief or statement of interest, alleging a pattern or practice or systemic violation of Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Section 109 of the Housing and Community Development Act of 1974, the Americans with Disabilities Act or a claim under the False Claims Act related to fair housing, non-discrimination, or civil rights generally including an alleged failure to affirmatively further fair housing;
 4. Receipt of a letter of findings identifying systemic non-compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Section 109 of the Housing and Community Development Act of 1974; or the Americans with Disabilities Act; or

5. Receipt of a cause determination from a substantially equivalent state or local fair housing agency concerning a systemic violation of provisions of a state or local law prohibiting discrimination in housing based on sexual orientation, gender identity, or lawful source of income.
- b. HUD will determine if actions to resolve the charge, cause determination, lawsuit, or letter of findings taken before the application deadline date will resolve the matter. Examples of actions that may be sufficient to resolve the matter include, but are not limited to:
 1. Current compliance with a voluntary compliance agreement signed by all the parties;
 2. Current compliance with a HUD-approved conciliation agreement signed by all the parties;
 3. Current compliance with a conciliation agreement signed by all the parties and approved by the state governmental or local administrative agency with jurisdiction over the matter;
 4. Current compliance with a consent order or consent decree;
 5. Current compliance with a final judicial ruling or administrative ruling or decision; or
 6. Dismissal of charges.

2. Timely Submission of Applications. Applications submitted after the deadline stated within this NOFO that do not meet the requirements of the grace period policy will be marked late. Late applications are ineligible and will not be considered for funding. See Section IV. D. Application Submission Dates and Times.

E. Statutory and Regulatory Requirements Affecting Eligibility.

Eligibility Requirements for Applicants of HUD's Grants Programs

The following requirements affect applicant eligibility. Detailed information on each requirement is posted on [HUD's Funding Opportunities Page](#).

- Active Prime and Sub Recipient registration with SAM.gov
- Outstanding Delinquent Federal Debts
- Debarments and/or Suspensions
- Pre-selection Review of Performance
- Sufficiency of Financial Management System
- False Statements
- Mandatory Disclosure Requirement
- Prohibition Against Lobbying Activities
- Equal Participation of Faith-Based Organizations in HUD Programs and Activities

F. Program-Specific Requirements.

1. Project activities will be limited to radon testing and/or mitigation. Also, because of limited funding, we will only provide funding for radon testing and/or mitigation in properties located in EPA radon Zones 1 or 2. In addition, the radon professional must meet the requirements specified in [III.F.2.a](#).

For properties located in Zone 3, an exception will be given if an applicant can provide information that shows (i) radon testing was conducted by a radon professional in at least 20 units in one or more properties AND elevated radon levels (i.e., at or above the action level of

4pCi/L) were confirmed in 10% or more of the tested units, (ii) documentation from the CDC's National Environmental Public Health Tracking Network, demonstrating that the mean pre-mitigation radon testing level (based on data from 2008-2017) for the county in which the property is located is 2pCi/L or greater, or (iii) a radon map created by an agency in your state showing that the radon risk in the geographic area in which your property is located is equivalent or greater than the risk in EPA Zone 2. Information on radon risks is available on EPA's website: <https://www.epa.gov/radon/health-risk-radon#beir>. A spreadsheet with radon zone designation by county is available on EPA's website: <https://www.epa.gov/radon/state-maps-radon-zones>. Information on radon risk from the CDC's website can be found at: <https://www.cdc.gov/nceh/tracking/topics/RadonTesting.htm>

2. Program Requirements.

a. Radon Testing. Radon testing must be conducted by or under the supervision of a professional who is currently credentialed by the National Radon Proficiency Program (NRPP) or the National Radon Safety Board (NRSB.) The individual must also be licensed/certified in the state in which the work is being conducted if the state has this requirement. All radon testing must be conducted in accordance with the protocols specified in the current ANSI/AARST practice standard for the particular building type (i.e., MAMF-2017 with 2021 revisions or MAH 2019). See: [AARST Radon Standards](#)

b. Radon Mitigation. If testing identifies a radon level at or above the EPA action level of 4pCi/L, mitigation must be conducted by a professional who is credentialed by the NRPP or NRSB and licensed/certified in the state in which the work is being conducted, if required by the state. Radon mitigation must be conducted according to the current ANSI/AARST consensus standards for the specific housing type (i.e., RMS-MF 2018 or SGM-SF 2017 with 12/2020 revisions). See: [AARST Radon Standards](#).

c. Radon testing and mitigation conducted using funding from this NOFO are restricted to units in which families with children can reside.

d. Program Performance. Grantees shall take all reasonable steps to accomplish all activities within the approved period of performance. HUD reserves the right to terminate the grant agreement prior to the expiration of the period of performance if the grantee fails to make reasonable progress in implementing the approved program of activities or fails to comply with the terms and conditions of the grant agreement.

e. Regulatory Compliance. Grantees must comply with all relevant Federal, state and local regulations regarding radon testing and mitigation, and the exposure to and proper disposal of hazardous materials.

f. Restricted Use of Funds. HUD Radon Testing and Mitigation Demonstration grant funds must not be used to replace or reimburse existing resources dedicated to any ongoing project.

g. OSHA Compliance. The requirements of the Occupational Safety and Health Administration (OSHA) (e.g., 29 CFR parts 1910 and/or 1926, as applicable) or the state or local occupational safety and health regulations, whichever are most stringent, must be met.

h. Privacy. Submission of any information to databases (whether website, computer, paper, or other format) of addresses of housing units tested for radon and/or mitigation under these grants may be subject to the protections of the Privacy Act of 1974 and shall not include any personal information that could identify any household member. You should also check to ensure you

meet state and local privacy regulations as well as other federal privacy laws and regulations.

i. Cooperation with Related Research and Evaluation. You must cooperate fully with any research or evaluation sponsored by HUD, or another government agency associated with this grant program, including preservation of project data and records, and compiling requested information in formats provided by the researchers, evaluators, or HUD.

j. Economic Opportunities for Low- and Very Low-Income Persons (Section 3). Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. § 1701u) applies directly to the grantee (see 24 CFR 75.3(a)(2)). The purpose of Section 3 is to ensure that new training, employment, or contracting opportunities created during the grant will, to the greatest extent feasible, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons in the area in which the project is located. Any grantee receiving more than \$100,000 must comply with the Section 3 requirements. Please refer to 24 CFR Part 75, subparts A and C.

k. Code of Conduct. If you are awarded a grant, you must be prepared to submit a copy of your Organization's Code of Conduct and describe the methods you will use to ensure that all officers, employees, and agents of the organization are aware of your Code of Conduct, prior to entering into a grant agreement with HUD.

l. Procurement Requirements. All goods and services must be procured through a competitive process. PHAs must follow procurement requirements in 2 CFR Part 200.

G. Criteria for Beneficiaries.

N/A

IV. Application and Submission Information.

A. Obtaining an Application Package.

Instructions for Applicants.

You must download both the Application Instructions and the Application Package from Grants.gov. You must verify that the Assistance Listing Number and Assistance Listing Description on the first page of the Application Package, and the Funding Opportunity Title and the Funding Opportunity Number match the Program and NOFO to which you are applying.

The Application Package contains the portable document forms (PDFs) available on Grants.gov, such as the SF-424 Family. The Instruction Download contains official copies of the NOFO and forms necessary for a complete application. The Instruction Download may include Microsoft Word, Microsoft Excel and additional documents.

An applicant demonstrating good cause may request a waiver from the requirement for electronic submission, for example, a lack of available Internet access in the geographic area in which your business offices are located. Lack of SAM registration or valid DUNS Number is not good cause. If you cannot submit your application electronically, you must ask in writing for a waiver of the electronic grant submission requirements. HUD will not grant a waiver if HUD does not receive your written mailed, shipped, or emailed request at least 15 calendar days before the application deadline and if you do not demonstrate good cause. If HUD waives the requirement,

HUD must receive your paper application before the deadline of this NOFO. To request a waiver, you must contact:

Name:

Rhona Julien Sc.D.

Email:

rhona.p.julien@hud.gov

HUD Organization:

OLHCHH

Street:

451 7th Street, S.W. Room 8236

City:

Washington

State:

DC DISTRICT OF COLUMBIA

Zip:

20410

B. Content and Form of Application Submission.

You must verify that boxes 11, 12, and 13 on the SF-424 match the NOFO for which you are applying. If they do not match, you have downloaded the wrong Application Instruction and Application Package.

Submission of an application that is otherwise sufficient, under the wrong Assistance Listing and Funding Opportunity Number is non curable unless otherwise stated in Threshold requirements.

1. Content.

Forms/Assurances/Certifications	Submission Requirement	Notes/Description
Application for Federal Assistance (SF424)	Submission is required for all applicants by the application due date.	
Disclosure of Lobbying Activities (SFLLL), if applicable	HUD will provide instructions to grantees on how the form is to be submitted.	If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

Forms/Assurances/Certifications	Submission Requirement	Notes/Description
		commitment providing for the United States to insure or guarantee a loan, the applicant shall complete and submit the SF-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. Applicants must furnish an executed copy of the Certification Regarding Lobbying prior to award.
HUD Applicant Recipient Disclosure Report (HUD) 2880 Applicant/Recipient Disclosure/Update Report	HUD will provide instructions to grantees on how the form is to be submitted.	HUD instructions to grantees are provided by webcast, To view the webcast, click here.

Additionally, your complete application must include the following narratives and non-form attachments.

A written narrative that addresses ALL the rating factors noted in section V.A. is a threshold requirement for all applicants and **cannot exceed ten (10) pages**. Failure to submit a written narrative is not curable and shall not be requested by HUD during the deficiency or "cure" period.

Form SF424 Application for Federal Assistance and applicable assurances (SF-424A-D, as applicable). Be sure to correctly identify the NOFO title, Funding Opportunity Number and CFDA number. Applicants must also include the nine-digit zip code (zip code plus four digits) associated with the applicant address in box 8d of Form SF-424. You can find the 9-digit zip code through the USPS website (<http://usps.com>) by selecting "Look Up a Zip Code?" under the "Quick Tools" menu on the USPS homepage and entering the street address. It should also include the PHA code.

Any additional information provided to supplement the required forms listed above will not be evaluated.

2. Format and Form.

Narratives and other attachments to your application must follow the following format guidelines.

Ten Pages maximum length of narratives

Other

Narratives and other attachments to your application must follow the following format guidelines.

Ten (10) 8-1/2 x 11 inch page limit.

Number the pages of the narrative.

Minimum 12 point Times New Roman font. Minimum margin width of 1 inch on all sides.

Minimum of single line spacing.

NOTE: Any information submitted in response to the Rating Factors beyond the page limit will not be reviewed.

C. System for Award Management (SAM) and Dun and Bradstreet Universal Numbering System (DUNS) Number.

1. SAM Registration Requirement.

Applicants must be registered with <https://www.sam.gov/> before submitting their application. Applicants must maintain current information in SAM on immediate and highest-level owner and subsidiaries, as well as on all predecessors that have been awarded a Federal contract or grant within the last three years, if applicable. Information in SAM must be current for all times during which the applicant has an active Federal award or an application or plan under consideration by HUD.

2. DUNS Number Requirement.

Applicants must provide a valid DUNS number, registered and active at <https://www.sam.gov/> in the application. DUNS numbers may be obtained for free from Dun & Bradstreet.

3. Requirement to Register with Grants.gov.

Anyone planning to submit applications on behalf of an organization must register at [grants.gov](https://www.grants.gov/) and be approved by the E-Biz POC in SAM to submit applications for the organization. Registration for SAM and [grants.gov](https://www.grants.gov/) is a multi-step process and can take four (4) weeks or longer to complete if data issues arise. Applicants without a valid registration cannot apply through [grants.gov](https://www.grants.gov/). Complete registration instructions and guidance are provided on [grants.gov](https://www.grants.gov/).

D. Application Submission Dates and Times.

Application Due Date Explanation

The application deadline is 11:59:59 PM Eastern Standard time on

03/28/2022

Applications must be received no later than the deadline, or, if HUD has issued you a waiver allowing you to submit your application in paper form, by HUD no later than the deadline.

Submit your application to [Grants.gov](https://www.grants.gov/) unless a waiver has been issued allowing you to submit your application in paper form. Instructions for submitting your paper application will be contained in the waiver of electronic submission.

"Received by [Grants.gov](https://www.grants.gov/)" means the applicant received a confirmation of receipt and an application tracking number from [Grants.gov](https://www.grants.gov/). [Grants.gov](https://www.grants.gov/) then assigns an application tracking number and date-and timestamps each application upon successful receipt by the [Grants.gov](https://www.grants.gov/) system. A submission attempt not resulting in confirmation of receipt and an application tracking number is not considered received by [Grants.gov](https://www.grants.gov/).

Applications received by [Grants.gov](https://www.grants.gov/) must be validated by [Grants.gov](https://www.grants.gov/) to be received by HUD.

"Validated by Grants.gov" means the application has been accepted and was not rejected with errors. You can track the status of your application by logging into Grants.gov, selecting "Applicants" from the top navigation, and selecting "Track my application" from the dropdown list. If the application status is "rejected with errors," you must correct the error(s) and resubmit the application before the 24-hour grace period ends. Applications in "rejected with errors" status after the 24-hour grace period expires will not be received by HUD. Visit Grants.gov for a complete description of processing steps after applying.

HUD strongly recommends you submit your applications at least **48 hours before the deadline** and during regular business hours to allow enough time to correct errors or overcome other problems.

Grants.gov Customer Support. Grants.gov provides customer support information on its website at <https://www.grants.gov/web/grants/support.html> . Applicants having difficulty accessing the application and instructions or having technical problems can receive customer support from Grants.gov by calling (800) 518-GRANTS (this is a toll-free number) or by sending an email to support@grants.gov. The customer support center is open 24 hours a day, seven days per week, except Federal holidays. The phone number above may also be reached by individuals who are deaf or hard of hearing, or who have speech disabilities, through the Federal Relay Service's teletype service at 800-877-8339.

You can verify the contents of your submitted application to confirm Grants.gov received everything you intended to submit. To verify the contents of your submitted application:

- Log in to Grants.gov.
- Click the Check Application Status link, which appears under the Grant Applications heading in the Applicant Center page. This will take you to the Check Application Status page.
- Enter search criteria and a date range to narrow your search results.
- Click the Search button. To review your search results in Microsoft Excel, click the Export Data button.
- Review the Status column, to view more detailed submission information, click the Details link in the Actions column.
- To download the submitted application, click the Download link in the Actions column.

Please make note of the Grants.gov tracking number as it will be needed by the Grants.gov Help Desk if you seek their assistance.

HUD may extend the application deadline for any program if Grants.gov is offline or not available to applicants for at least 24 hours immediately prior to the deadline date, or the system is down for 24 hours or longer and impacts the ability of applicants to cure a submission deficiency within the grace period.

HUD may also extend the application deadline upon request if there is a presidentially declared disaster in the applicant's area.

If these events occur, HUD will post a notice on its website establishing the new, extended

deadline for the affected applicants. HUD will also include the fact of the extension in the program's Notice of Funding Awards required to be published in the Federal Register.

In determining whether to grant a request for an extension based on a presidentially-declared disaster, HUD will consider the totality of the circumstances including the date of an applicant's extension request (how closely it followed the basis for the extension), whether other applicants in the geographic area are similarly affected by the disaster, and how quickly power or services are restored to enable the applicant to submit its application.

PLEASE NOTE: Busy servers, slow processing, large file sizes, improper registration or password issues are not valid circumstances to extend the deadline dates or the grace period.

1. Amending or Resubmitting an Application.

Before the submission deadline, you may amend a validated application through Grants.gov by resubmitting a revised application containing the new or changed material. The resubmitted application must be received and validated by Grants.gov by the applicable deadline.

If HUD receives an original and a revised application for a single proposal, HUD will evaluate only the last submission received by Grants.gov before the deadline.

2. Grace Period for Grants.gov Submissions.

If your application is received by Grants.gov before the deadline, but is rejected with errors, you have a grace period of 24 hours after the application deadline to submit a corrected, received, and validated application through Grants.gov. The date and time stamp on the Grants.gov system determines the application receipt time. Any application submitted during the grace period not received and validated by Grants.gov will not be considered for funding. There is no grace period for paper applications.

3. Late Applications.

An application received after the NOFO deadline date that does not meet the Grace Period requirements will be marked late and will not be received by HUD for funding consideration. Improper or expired registration and password issues are not causes that allow HUD to accept applications after the deadline.

4. Corrections to Deficient Applications.

HUD will not consider information from applicants after the application deadline.

HUD will uniformly notify applicants of each curable deficiency. See curable deficiency in the definitions section (Section I.A.3). Examples of curable (correctable) deficiencies include inconsistencies in the funding request and failure to submit required certifications. These examples are non-exhaustive.

When HUD identifies a curable deficiency, HUD will notify the authorized organization representative identified on the SF 424 Application for Federal Assistance via email. This email is the official notification of a curable deficiency.

Applicants must email corrections of curable deficiencies to applicationsupport@hud.gov within the time limits specified in the notification. The time allowed to correct deficiencies will be no less than 48 hours and no more than 14 calendar days from the date of the email notification. The start of the cure period will be the date stamp on the email sent from HUD. If the deficiency cure deadline date falls on a Saturday, Sunday, Federal holiday, or on a day when HUD's Headquarters are closed, then the applicant's correction must be received on the next business day HUD Headquarters offices in Washington, DC are open.

The subject line of the email sent to applicationsupport@hud.gov must state: Technical Cure and include the Grants.gov application tracking number or the GrantSolutions application number (e.g., Subject: Technical Cure - GRANT123456 or Technical Cure - XXXXXXXXXXXX). If this information is not included, HUD cannot match the response with the application under review and the application may be rejected due to the deficiency.

Corrections to a paper application must be sent in accordance with and to the address indicated in the notification of deficiency. HUD will treat a paper application submitted in accordance with a waiver of electronic application containing the wrong DUNS number as having a curable deficiency. Failure to correct the deficiency and meet the requirement to have a DUNS number and active registration in SAM will render the application ineligible for funding.

5. Authoritative Versions of HUD NOFOs. The version of these NOFOs as posted on Grants.gov are the official documents HUD uses to solicit applications.

6. Exemptions. Parties that believe the requirements of the NOFO would impose a substantial burden on the exercise of their religion should seek an exemption under the Religious Freedom Restoration Act (RFRA).

E. Intergovernmental Review.

This program is not subject to Executive Order 12372, Intergovernmental Review of Federal Programs.

F. Funding Restrictions.

1. Funds can only be used for radon testing and mitigation and other directly related costs (e.g., notifying residents, managing radon data) and for grant-specific requirements. Funds can NOT be used to cover pre-award costs.
2. Administrative Costs. Awardees may utilize up to ten percent (10%) of the federal award for payments of allowable and allocable reasonable direct grant program administrative costs and indirect costs related to planning, general management, oversight, and coordination of the grant and executing the project, such as preparation and submission of HUD reports. Administrative costs must be reflected under each appropriate line items (e.g., salaries, fringe, supplies, on the Form HUD_424_CBW) and a detailed cost element breakdown in the budget narrative must be provided. The ten percent (10%) cap does not include in-kind or leveraging resources contributed by the awardee. There are two (2) categories of administrative costs: direct administrative costs and indirect costs. For the purposes of this grant, all direct administrative costs and all indirect costs count towards the ten percent (10%) administrative cost limit.
3. Purchase of Real Property. The purchase of real property is not an allowable cost under this program.

4. Purchase or Lease of Equipment. The purchase or lease of equipment having a per unit cost more than \$5,000 is not an allowable cost unless prior written approval is obtained from HUD.
5. You must comply with the Coastal Barrier Resources Act (16 U.S.C. § 3501 et seq.).
6. Construction Activities. Construction activities supported with funds awarded under this NOFO are limited to what is necessary to conduct the proposed testing and mitigation of radon.

Indirect Cost Rate.

Normal indirect cost rules under 2 CFR part 200, subpart E apply. If you intend to charge indirect costs to your award, your application must clearly state the rate and distribution base you intend to use. If you have a Federally negotiated indirect cost rate, your application must also include a letter or other documentation from the cognizant agency showing the approved rate. Successful applicants whose rate changes after the application deadline must submit new rate and documentation.

Applicants other than state and local governments. If you have a Federally negotiated indirect cost rate, your application must clearly state the approved rate and distribution base and must include a letter or other documentation from the cognizant agency showing the approved rate. If your agency does not have a current negotiated rate (including provisional) rate and elects to use the de minimis rate, your application must clearly state you intend to use the de minimis rate of 10% of Modified Total Direct Costs (MTDC). As described in 2 CFR 200.403, costs must be consistently charged as either indirect or direct costs but may not be double charged or inconsistently charged as both. Once elected, the de minimis rate must be applied consistently for all Federal awards until you choose to negotiate for a rate, which you may apply to do at any time. Documentation of the decision to use the de minimis rate must be retained on file for audit.

G. Other Submission Requirements.

1. Application, Assurances and Certifications.

Standard Form 424 (SF-424) Application for Federal Assistance Programs is the government-wide form required to apply for Application for Federal Assistance Programs, discretionary Federal grants and other forms of financial assistance programs. Applicants for this Federal assistance program must submit all required forms in the SF-424 Family of forms, including SF-424B (Assurances of Non construction Programs) or SF424D (Assurances for Construction Programs). Applications receiving funds for both non-construction programs and construction programs must submit both the SF-424B and SF-424D.

By signing the forms in the SF-424 either through electronic submission or in paper copy submission (for those granted a waiver), the applicant and the signing authorized organization representative affirm that they have reviewed the certifications and assurances associated with the application for Federal assistance and (1) are aware the submission of the SF-424 is an assertion that the relevant certifications and assurances are established and (2) acknowledge that the truthfulness of the certifications and assurances are material representations upon which HUD will rely when making an award to the applicant. If it is later determined the signing authorized organization representative to the application made a false certification or assurance, caused the submission of a false certification or assurance, or did not have the authority to make

a legally binding commitment for the applicant, the applicant and the individual who signed the application may be subject to administrative, civil, or criminal action. Additionally, HUD may terminate the award to the applicant organization or pursue other available remedies. Each applicant is responsible for including the correct certifications and assurances with its application submission, including those applicable to all applicants, those applicable only to Federally recognized Indian tribes, or Alaska native villages and those applicable to applicants other than federally recognized Indian tribes or Alaska native villages.

Assurances. By submitting your application, you provide assurances that, if selected to receive an award, you will comply with U.S. statutory and public policy requirements, including, but not limited to civil rights requirements. Applicants and recipients are required to submit assurances of compliance with federal civil rights requirements. *See, e.g.,* Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments Act of 1972, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975; *see also* 24 C.F.R. §§ 1.5; 3.115; 8.50; and 146.25. HUD accepts these assurances in the form of the SF-424B and SF-424D, which also require compliance with all general federal nondiscrimination requirements in the administration of the grant.

V. Application Review Information.

A. Review Criteria.

1. Rating Factors.

Each of the four factors is weighted as indicated by the number of points that are assigned to it. The maximum score that can be attained is 100 points. Applicants should be certain that each of these factors (and sub-factors) is adequately addressed in the project description and accompanying materials. Include all of the needed information within your response to each rating factor.

As indicated above, you must submit a narrative that addresses **all** the rating factors for your application to be eligible for review and scoring. If a rating factor does not apply, please indicate this in your narrative. Failure to address any rating factor/subfactor will result in the loss of the corresponding number of points.

i. Capacity of Applicant and Relevant Organizational Experience

Maximum Points: 25

This factor addresses the extent to which you have the ability, capacity, and organizational resources necessary to successfully implement the testing/mitigation of the radon project in a timely manner. In rating this factor, HUD will consider the extent to which your application demonstrates:

a. The capability of the organization and qualifications of key project personnel (15 points). Identify who on your staff will have the primary responsibility for implementing the project (i.e., the day-to-day project manager) and those in key positions of authority who will ensure that the project is successfully implemented. Please provide resumes (maximum of 3 pages in length) of a maximum of 3 key personnel in your application. Resumes will not be counted in the page limit for your application. HUD will assess the qualifications of project staff who will carry out the proposed project as evidenced by their professional background, credentials, and expertise. For example, training/professional certifications, professional experience, and subject

matter expertise of the team that will execute the project proposed under this NOFO. In providing this information, please identify each individual's organization, position title, phone/fax numbers, email addresses, and percentage of time proposed for this grant. (Note: you have the option to provide this information on your proposed key personnel as an attachment which will not be included in the 10-page maximum.)

b. Past performance of the PHA in managing similar projects (10 points).

(i). If you have conducted previous radon testing or mitigation in the properties that you manage, provide the following information: when the work was conducted, the qualifications of the radon professional who conducted or supervised the work, and briefly summarize how your PHA managed the project. (3 points).

(ii). Please describe how your PHA managed the assessment and mitigation or remediation of any residential environmental hazard on your properties/buildings in the past. Indicate when and provide details on the nature of these activities, how it was funded, and your performance (e.g., timely completion, achievement of project goals; and data usage to address the risks from exposure if it involved an environmental hazard in the project/building(s) where the hazard assessment was conducted.) (7 points).

ii. Demonstrated Need for Radon Testing/Mitigation:

Maximum Points: 15

This factor addresses the extent to which you demonstrate the level of need to conduct radon testing/mitigation in your properties/buildings. In evaluating this factor, HUD will assess the radon risk/need based on the information provided:

a. Radon risk zone (5 points).

You must identify the radon zone(s) as defined in <https://www.epa.gov/Radon/index.html> where the properties/buildings to be tested and mitigated (if necessary) are located. If your target properties are in EPA radon Zone 3, describe the previous radon testing that meets the threshold requirements described in III.F.1 (i.e., at least 20 units tested and 2 or more units had elevated radon levels.) If your state has developed a map that is more accurate than the EPA zone map, describe how the state map characterizes radon risk for your geographic area. For this section, the points will be awarded as follows: For properties located in Zone 1 or locations with equivalent risk – 5 points; for Zones 2 or 3 (or locations with equivalent risk) – 1-4 points, depending on the level of risk that's demonstrated in your application.

b. Properties targeted (5 points).

Describe the properties that you plan to target with this grant funding, in particular the number of residents that will be protected from radon exposure through this funding. Include descriptions of building types, the number of ground units, the total number of units in each building, and a description of the residents housed in the properties. Please also include the IMS/PIC Development(s)/AMP (s) name and number.

Note: NOFO funds can only be used for testing and mitigation in units in which families with children can reside.

c. Previous radon testing/mitigation (5 points).

Describe any radon testing and mitigation that you have conducted on your properties within the past five years.

If the testing identified units with elevated radon levels that have not yet been mitigated, summarize these results. Include a summary report of the testing and mitigation as an appendix to your application. You will receive more points under this rating factor if: you have tested at least 20 units and 10% or more of the units (2 or more in this case) had elevated radon levels. To receive points under this subfactor for demonstrated radon risk from previous testing, the testing

must have been conducted by a professional meeting the qualifications described in III.F.2.a.

iii. Soundness of Approach and Cost Estimate:

Maximum Points: 40

This factor addresses the quality of your proposed project plan. Specific components include the following:

a. Soundness of the project plan (30 points).

(i). Project Plan (15 points).

Clearly and thoroughly describe your proposed project plan indicating any milestones and the total number of units/buildings/properties you intend to test, with an estimate of how many will need to be mitigated. Describe the basis for your estimate. The discussion in section I.A.1 may be useful for you for estimating the number of units requiring mitigation and the estimated cost of testing and mitigation in your targeted properties. In describing your plan, indicate what action you will take if the number of units with elevated radon levels are lower than expected in the buildings that you initially plan to target. As noted in III.F.2.c., you must use the funds awarded through this NOFO to perform work in projects where families with children can reside.

(ii) Contracting Process (5 points).

Describe in sufficient detail your contracting process, how you plan to identify and hire radon professionals with the appropriate credentials to execute the project and how you will ensure that the radon testing and mitigation conducted with grant funds will be conducted according to the current ANSI/AARST consensus standards.

(iii). Use of project findings (5 points).

Describe how the findings from this project will inform your plans for future radon testing and mitigation and how you plan to continue testing and mitigation in your properties after this grant has expired.

(iv). Data management (5 points).

Describe your plans to securely capture and manage the data that you generate from this project and the steps you will take to keep residents informed of plans for radon testing and mitigation in your properties.

b. Budget Proposal (10 points)

(i). Budget estimate (5 points).

Your budget proposal should thoroughly estimate all applicable direct costs as well as any administrative expenses and the information must be presented in a clear and coherent format. HUD is not required to fund all proposed activities. You must thoroughly document and justify all budget categories and costs (Form HUD424CBW) and all major tasks, for your organization and subcontractors. **Develop your budget to minimize the possibility that you will have unspent funds at the end of the grant period by being careful not to overestimate the number of radon mitigations that will likely be triggered by your radon testing.**

(ii). Budget justification (5 points).

A narrative justification associated with these budgeted costs should be submitted as part of the Total Budget (Federal Share and Leveraging) but is not included in the 10-page limit for this submission. The narrative should clearly provide an explanation of the basis for the major budget items.

Your budget will be assessed on the degree to which it appears to be an efficient use of resources considering the proposed scope of your project.

iv. Project Management and Sharing of Results:

Maximum Points: 20

This factor emphasizes HUD's commitment to ensuring that applicants keep promises made in their applications. The performance of successful applicants will be assessed quarterly to ensure that performance goals are met. This factor requires applicants to clearly identify benchmarks and milestones that demonstrate progress in project completion as well as final project outcomes. Applicants must also provide a management plan that indicates how they will ensure timely and successful completion of the project. The application should include the following:

a. Timeline of project activities (8 points).

You should demonstrate that it is clearly feasible to complete the project within the proposed period of performance. You should provide a schedule for the clear and expeditious completion of all tasks, with associated benchmarks and major project milestones and deliverables.

Benchmarks and important milestones should be identified on a quarterly basis in a project timeline. Successful applicants will be required to enter project benchmarks and milestones into a spreadsheet, which will be used by HUD to track project progress.

b. Project Administration and Oversight (8 points).

Describe how you will administer this grant, including how you will address oversight and financial management and how you will ensure that work is conducted and that acceptable services are provided before you submit invoices to HUD. Describe the staff, procedures, and project management system you will use to ensure proper project oversight/monitoring, contract administration, and routine monitoring to ensure conformity to the terms, conditions, and specifications of contracts or other formal agreements. You must also submit an organizational chart that shows the key project staff, their roles, and their reporting relationships. The chart may be submitted as an attachment and will not count towards the 10-page maximum.

c. Potential obstacles (3 points).

You should identify potential obstacles and delays in maintaining the proposed schedule and achieving project objectives and discuss steps and adjustments you would take to respond to these potential obstacles and delays to ensure timely completion of the project.

d. Final report (1 points).

Include plans for preparation and submission of a report detailing project findings which will be part of the final deliverable submitted to HUD during the agreed upon period of performance or during the 120-day closeout period following award expiration.

2. Other Factors.

This program does not offer points for Section 3.

Preference Points

This program does not offer preference points.

Opportunity Zones.

This program does not offer Opportunity Zone preference points.

HBCU.

This program does not offer HBCU preference points.

Promise Zones

This program does not offer Promise Zone preference points.

B. Review and Selection Process.

1. Past Performance

In evaluating applications for funding, HUD will consider an applicant's past performance in managing funds. Items HUD will consider include, but are not limited to:

Producing positive outcomes and results.

Promoting self-sufficiency and economic independence

The number of persons served or targeted for assistance;

Timely completion of activities and receipt and expenditure of promised matching or leveraged funds;

The applicant's organizational capacity, including staffing structures and capabilities;

Meeting performance targets as established in the grant agreement;

Meeting program requirements;

Timely submission and quality of reports submitted to HUD;

Timely use of funds received from HUD;

The ability to account for funds in compliance with applicable reporting and recordkeeping requirements;

HUD may reduce scores based on the past performance review, as specified under V.A. Review Criteria. Whenever possible, HUD will obtain past performance information. If this review results in an adverse finding related to integrity of performance, HUD reserves the right to take any of the remedies provided in Section III E., Statutory and Regulatory Requirements Affecting Eligibility, "Pre-selection Review of Performance" document link above.

2. Assessing Applicant Risk.

In evaluating risks posed by applicants, HUD may use a risk-based approach and may consider any items such as the following:

- Financial stability;
- Quality of management systems and ability to meet the management standards prescribed in this part;
- History of performance. The applicant's record in managing Federal awards, if it is a prior recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, failing to make significant progress in a timely manner, failing to meet planned activities in a timely manner, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards;
- Reports and findings from audits performed under Subpart F—Audit Requirements of this part or the reports and findings of any other available audits; and

- The applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

3. Rating and Ranking of Applications. Applications that meet all the threshold requirements will be eligible to be reviewed and scored. Applications scoring 75 points or more will be qualified to receive an award. Awards will then be made in rank order within the limits of funding availability. If there is more than one lowest-scoring qualified applicant (i.e., their scores are tied), the Application Review Panel will make an award to one or more applicant(s) determined by which applicant(s) would be most likely to satisfy the requirements of this NOFA based on radon exposure risk and proposed plans for radon testing and as-needed mitigation.

VI. Award Administration Information.

A. Award Notices.

Following the evaluation process, HUD will notify successful applicants of their selection for funding. HUD will also notify other applicants, whose applications were received by the deadline, but have not been chosen for award. Notifications will be sent by email to the person listed as the AOR in item 21 of the SF424.

HUD may impose special conditions on an award as provided under 2 CFR 200.208:

- Based on HUD's review of the applicant's risk under 2 CFR 200.206;
- When the applicant or recipient has a history of failure to comply with the general or specific terms and conditions of a Federal award;
- When the applicant or recipient fails to meet expected performance goals contained in a Federal award; or
- When the applicant or recipient is not otherwise responsible.

Adjustments to Funding. To ensure the fair distribution of funds and enable the purposes or requirements of a specific program to be met, HUD reserves the right to fund less than the amount requested in an application.

a. HUD will fund no portion of an application that:

- (1) Is not eligible for funding under applicable statutory or regulatory requirements;
- (2) Does not meet the requirements of this notice; or
- (3) Duplicates other funded programs or activities from prior year awards or other selected applicants.

b. If funds are available after funding the highest-ranking application, HUD may fund all or part of another eligible fundable application. If an applicant turns down an award offer, or if HUD and an applicant do not successfully complete grant negotiations, HUD may withdraw the award offer and make an offer of funding to another eligible application.

c. If funds remain after all selections have been made, remaining funds may be made available within the current FY for other competitions within the program area, or be held for future competitions, or be used as otherwise provided by authorizing statute or appropriation.

d. If, after announcement of awards made under the current NOFO, additional funds become available either through the current appropriations, a supplemental appropriation, other appropriations or recapture of funds, HUD may use the additional funds to provide additional

funding to an applicant awarded less than the requested amount of funds to make the full award, and/or to fund additional applicants that were eligible to receive an award but for which there were no funds available.

Funding Errors. If HUD commits an error that when corrected would cause selection of an applicant during the funding round of a Program NOFO, HUD may select that applicant for funding, subject to the availability of funds. If funding is not available to award in the current fiscal year, HUD may make an award to this applicant during the next fiscal year, if funding is available then.

1. Applicants who have been selected for award will be notified by email from the OLHCHH Grant Officer. The email will state the amount the applicant is eligible to receive, and the name of the Government Technical Representative (GTR). This email is not an authorization to begin work or incur costs under the award. An executed grant agreement is the authorizing document.
2. HUD may require that the selected applicants participate in negotiations to determine the specific terms of the grant agreement and budget. If you accept the terms and conditions of the grant agreement, you must return your signed grant agreement by the date specified during negotiation. In cases where HUD cannot successfully conclude negotiations with a selected applicant or a selected applicant fails to provide HUD with requested information, an award will not be made to that applicant. In this instance, HUD may offer an award, and proceed with negotiations with the next highest-ranking applicant.
3. If you are awarded a grant agreement, you will receive additional instructions on how to have the grant account entered into HUD's Line of Credit Control System (eLOCCS) payment system or its successor. Other forms and program requirements will also be provided.
4. In accordance with 2 CFR 200, Subpart F - Audits Requirements, grantees expending \$750,000 in Federal funds within a program or fiscal year must have a single or program-specific audit conducted for that year in accordance with the provisions of that subpart.

B. Statutory and Administrative, National and Department Requirements for HUD Recipients

For this NOFO, the following [Administrative, National and Department Policy Requirements and Terms for HUD Financial Assistance Awards](#) apply. (Please select the linked text to read the detailed description of each applicable requirement).

1. Unless otherwise specified, these non-discrimination and equal opportunity authorities and other requirements apply to all NOFOs. Please read the following requirements carefully as the requirements are different among HUD's programs.
 - Compliance with Fair Housing and Civil Rights Laws, Which Encompass the Fair Housing Act and Related Authorities (cf. 24 CFR 5.105(a)).
 - Affirmatively Furthering Fair Housing.
 - Economic Opportunities for Low-and Very Low-income Persons (Section 3). See 24 CFR part 75.
 - Improving Access to Services for Persons with Limited English Proficiency (LEP) See https://www.hud.gov/program_offices/fair_housing_equal_opp/limited_english_proficiency.
 - Accessible Technology. See <https://www.hud.gov/sites/dfiles/OCIO/documents/s508103017.pdf>
2. Equal Access Requirements. See 24 CFR 5.105(a)(2)

3. Uniform Relocation Act – Real Property Acquisition and Relocation Requirements. See 49 CFR part 24.
4. Participation in HUD-Sponsored Program Evaluation.
5. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
6. Drug-Free Workplace.
7. Safeguarding Resident/Client Files.
8. Compliance with the Federal Funding Accountability and Transparency Act of 2006 (Pub. L.109-282) (Transparency Act), as amended.
9. Accessibility for Persons with Disabilities. See https://www.hud.gov/program_offices/fair_housing_equal_opp/disability_overview
10. Conducting Business in Accordance with Ethical Standards/Code of Conduct.
11. Environmental Requirements, which include compliance with environmental justice requirements under Executive Order 12898.

Compliance with 24 CFR part 50 or 58 procedures is explained below:

a. Eligible Construction and Rehabilitation Activities. A FY 2021 Radon Testing and Mitigation Demonstration for Public Housing award does not constitute approval of specific sites where activities that are subject to environmental review may be carried out. The provisions of section 305(c) of the Multifamily Housing Property Disposition Reform Act of 1994, implemented by HUD regulations at 24 CFR part 58, “Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities,” are applicable to properties assisted with the Radon Testing and Mitigation Demonstration for Public Housing grant funds. Therefore, recipients conducting eligible construction and rehabilitation activities must comply with 24 CFR part 58. Reasonable expenses incurred for compliance with these environmental requirements are eligible expenses under this NOFO. Under 24 CFR 58.11, where the recipient is not a State or unit of general local government, if a responsible entity objects to performing the environmental review, or the recipient objects to the responsible entity performing the environmental review, HUD may designate another responsible entity to perform the review or may perform the environmental review itself under the provisions of 24 CFR part 50. When HUD performs the review itself, following grant award execution, HUD will be responsible for ensuring that any necessary environmental reviews are completed.

b. For all grant agreements under this NOFO, recipients and other participants in the project are prohibited from undertaking, or committing or expending HUD funds on a project or activities under this NOFO (other than activities listed in 24 CFR 58.34, 58.35(b) or 58.22(f)) until the responsible entity completes an environmental review and the applicant submits and HUD approves a Request for the Release of Funds and the responsible entity’s environmental certification (both on Form HUD-7015.15) or, in instances where HUD performs [the](#) environmental review under part 50, HUD has completed the review and notified the grantee of its approval. The results of the environmental reviews may require that proposed activities be modified, or proposed sites rejected. For Part 58 procedures, see <https://www.hudexchange.info/programs/environmental-review/>. **For assistance, contact Karen Griego, the Office of Lead Hazard Control and Healthy Homes Program Environmental Clearance Officer at (505) 346-6462 (this is not a toll-free number) or the HUD Environmental Clearance Officer in the HUD Field Office serving your area.** If you are a

hearing- or speech-impaired person, you may reach the telephone number via TTY by calling the toll-free Federal Relay Service at 1-800-877-8339. Recipients of a grant under this program will be given additional guidance in these environmental responsibilities.

c. All other activities not related to construction or rehabilitation activities are exempt or categorically excluded under 24 CFR 50.19 (b)(1), (3), (5) and (9), and 24 CFR 58.34(a)(1), (3), (5), and (9) from the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. § 4321) and are not subject to environmental review under the related environmental laws and authorities at 24 CFR 50.4 and 58.5.

2 CFR 200.216 *Prohibition on Certain Telecommunication and Video Surveillance Services or Equipment*

Lead Based Paint Requirements.

When providing housing assistance funding for purchase, lease, support services, operation, or work that may be disturb painted surfaces, of pre-1978 housing, you must comply with the lead-based paint evaluation and hazard reduction requirements of HUD's lead-based paint rules (Lead Disclosure; and Lead Safe Housing (24 CFR part 35)), and EPA's lead-based paint rules (e.g., Repair, Renovation and Painting; Pre-Renovation Education; and Lead Training and Certification (40 CFR part 745)).

C. Reporting.

HUD requires recipients to submit performance and financial reports under OMB guidance and program instructions.

1. Recipient Integrity and Performance Matters. Applicants should be aware that if the total Federal share of your Federal award includes more than \$ 500,000 over the period of performance, you may be subject to post award reporting requirements reflected in Appendix XII to Part 200-Award Term and Condition for Recipient Integrity and Performance Matters.

1.a Performance Reporting. All HUD-funded programs, including this program, require recipients to submit, not less than annually, a report documenting achievement of project outcomes under the purpose of the program and the work plan in the award agreement.

(1). Final budget and work plans are due 60 days after the start date.

(2). Basic progress reporting is required on a quarterly basis of project outcomes to date. Project benchmarks and milestones will be tracked using a benchmark spreadsheet that incorporates the benchmarks and milestones identified in the response to the rating factor (4) (see Section V.A.4.a). This will include reporting of radon test results and any radon mitigations that were performed during the quarter.

(3). Tangible Personal Property Report: Grant recipients who purchase equipment in excess of \$5,000 a piece must complete the OMB's annual Tangible Personal Property Report. This report has four components: The Annual Report, the Final (Award Closeout) Report, and the Disposition Report/Request (SF 428), and, if needed, the Supplemental Sheet

(<https://www.gsa.gov/forms-library/tangible-personal-property-report>).

(4). Section 3: Grant recipients covered by Section 3 (see III.F.2.j. of this NOFO) must comply with reporting and record-keeping requirements for Section 3 of the Housing and Urban Development Act of 1968, 12 U.S.C. § 1701u (Economic Opportunities for Low- and Very Low-Income Persons in Connection with Assisted Projects). Those requirements can be found at 24

CFR part 75, subpart D.

(5). Compliance with Section 872 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (Pub. L. 110-417), (Section 872). Section 872 requires the establishment of a government-wide data system - the Federal Awardee Performance and Integrity Information System (FAPIIS) - to contain information related to the integrity and performance of entities awarded federal financial assistance and making use of the information by federal officials in making awards. OMB is in the process of issuing regulations regarding federal agency implementation of section 872 requirements. A technical correction to this NOFO may be issued when such regulations are promulgated. HUD anticipates that the terms and conditions to its FY 2021 awards will contain requirements related to meeting FFATA and Section 872 requirements.

(6). Annual submission of Form HUD27061, if applicable, for reporting on racial and ethnic data on human subjects.

(7). Final Report: The grant agreement will specify the requirements for final reporting (e.g., final project report including the results of all formal evaluations and final project benchmarks and milestones achieved against the proposed benchmarks and milestones which were approved and incorporated into your grant). Questions regarding specific program requirements should be directed to the point of contact listed in Section VII below.

2. Race, Ethnicity and Other Data Reporting. HUD requires recipients that provide HUD-funded program benefits to individuals or families to report data on the race, color, religion, sex, national origin, age, disability, and family characteristics of persons and households who are applicants for, participants in, or beneficiaries or potential beneficiaries of HUD programs in order to carry out the Department's responsibilities under the Fair Housing Act, Executive Order 11063, Title VI of the Civil Rights Act of 1964, and Section 562 of the Housing and Community Development Act of 1987.

3. Many programs use the Race and Ethnic Data Reporting Form HUD-27061, U.S. Department of Housing OMB Approval No. 2535-0113

4. Compliance with the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. 109-282) as amended (FFATA). FFATA requires information on Federal awards be made available to the public via a single, searchable website, which is www.USASpending.gov. Accordingly, each award HUD makes under this NOFO will be subject to the requirements provided by the Award Term in Appendix A to 2 CFR Part 170, "REPORTING SUBAWARD AND EXECUTIVE COMPENSATION INFORMATION," unless the Federal funding for the award (including funding that may be added through amendments) is not expected to equal or exceed \$30,000. Requirements under this Award Term include filing subaward information in the Federal Funding Accountability and Transparency Act (FFATA) Sub-award Reporting System (FSRS.gov) by the end of the month following the month in which the recipient awards any sub-grant equal to or greater than \$30,000. Each applicant under this NOFO must have the necessary processes and systems in place to comply with this Award Term, in the event that they receive an award, unless an exception applies under 2 CFR 170.110.

5. Program-Specific Reporting Requirements

See VI.C.1.a (Reporting Requirements and Frequency of Reporting) above.

D. Debriefing.

For a period of at least 120 days, beginning 30 days after the public announcement of awards under this NOFO, HUD will provide a debriefing related to their application to requesting applicants. A request for debriefing must be made in writing or by email by the authorized organization representative whose signature appears on the SF-424 or by his or her successor in office and be submitted to the POC in Section VII Agency Contact(s), below. Information provided during a debriefing may include the final score the applicant received for each rating factor, final evaluator comments for each rating factor, and the final assessment indicating the basis upon which funding was approved or denied.

VII. Agency Contact(s).

HUD staff will be available to provide clarification on the content of this NOFO.

Questions regarding specific program requirements for this NOFO should be directed to the POC listed below.

Name:

Dr. Rhona Julien

Phone:

202-402-7696

Email:

rhona.p.julien@hud.gov

Persons with hearing or speech impairments may access this number via TTY by calling the toll-free Federal Relay Service at 800-877-8339. Please note that HUD staff cannot assist applicants in preparing their applications.

VIII. Other Information.

1. National Environmental Policy Act.

A Finding of No Significant Impact (FONSI) with respect to the environment has been made for this NOFO in accordance with HUD regulations at 24 CFR part 50, which implement section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)).

The FONSI is available for inspection at [HUD's Funding Opportunities](#) web page.

2. Web Resources.

- [Affirmatively Furthering Fair Housing](#)
- [Code of Conduct list](#)
- [Assistance Listing \(formerly CFDA\)](#)
- [Dun & Bradstreet](#)
- [Equal Participation of Faith-Based Organizations](#)
- [Federal Awardee Performance and Integrity Information System](#)
- [FFATA Subaward Reporting System](#)
- [Grants.gov](#)
- [HBCUs](#)
- [Healthy Homes Strategic Plan](#)

- [Healthy Housing Reference Manual](#)
- [HUD's Strategic Plan](#)
- [HUD Grants](#)
- [Limited English Proficiency](#)
- [NOFO Webcasts](#)
- [Opportunity Zone](#)
- [Procurement of Recovered Materials](#)
- [Promise Zones](#)
- [Section 3 Business Registry](#)
- [State Point of Contact List](#)
- [System for Award Management \(SAM\)](#)
- [Uniform Relocation Assistance and Real Property Acquisition Act of 1970 \(URA\)](#)
- [USA Spending](#)

3. Program Relevant Web Resources

For programmatic questions on the Radon Testing and Mitigation Demonstration Program for Public Housing, you may contact Brenda Reyes, MD, Office of Lead Hazard Control & Healthy Homes, at telephone 202-402-6745 or via email at Brenda.M.Reyes@hud.gov. For grants administrative questions, you may contact Ms. Deborah V. Roane, Office of Lead Hazard Control & Healthy Homes, at telephone 202- 402-7592 or via email at Deborah.V.Roane@hud.gov. If you are a hearing- or speech-impaired person, you may reach the above telephone numbers through TTY by calling the toll-free Federal Relay Service at 1-800-877-8339. Other Office of Lead Hazard Control & Healthy Homes Information: For additional general, technical, and grant program information pertaining to the Office of Lead Hazard Control and Healthy Homes, visit www.hud.gov/healthyhomes.

APPENDIX

APPENDIX A: Radon Resources.

1) Radon: The U.S. EPA estimates that about 21,000 deaths per year from lung cancer in the U.S. are related to radon exposure, about 1/8th of all US. lung cancer deaths. Radon measurement and remediation methods are well developed, and the EPA recommends that every home be measured for radon. An expert panel review of scientific articles on radon in the home concluded that active soil depressurization beneath the home's foundation was effective in reducing radon exposures. The American Association of Radon Scientists and Technologists (AARST) has published several standard protocols for the testing and mitigation of radon hazards in single and multifamily housing (<https://standards.aarst.org/>), e.g.:

- Radon measurement in single-family and multifamily housing, and associated quality assurance:
 - ANSI/AARST MAH-2019, Protocol for Conducting Measurements of Radon and Radon Decay Products in Homes
 - NSI/AARST MAMF-2017, Protocol for Conducting Measurements of Radon and Radon Decay Products in Multifamily Buildings
 - ANSI/AARST MS-QA-2019, Radon Measurement Systems Quality Assurance

- Radon mitigation in single-family and multifamily housing, and in associated soil:
 - ANSI/AARST RMS-MF-2018, Radon Mitigation Standards for Multifamily Buildings
 - ANSI/AARST MS-PC-2015, Performance Specifications for Instrumentation Systems Designed to Measure Radon Gas in Air
 - ANSI/AARST SGM-SF-2017, Soil Gas Mitigation Standards for Existing Homes
- Other Radon Resources, including tracking information:
 - <https://sosradon.org/state-radon-contact-map>
 - <https://sosradon.org/state-fact-sheets> site
 - <https://blogs.cdc.gov/yourhealthyourenvironment/2019/01/28/radon-we-track-that-2/>
 - <https://www.cdc.gov/nceh/tracking/topics/RadonTesting.htm>
 - <https://www.epa.gov/radon/radon-hotlines-and-information-resources>

References

EPA. Assessment of Risks from Radon in Homes, June 2003, publication number EPA 402-R-03-003, *available at* <https://www.epa.gov/radiation/docs/assessment/402-r-03-003.pdf>.

EPA. A Citizen's Guide To Radon, May 2012, publication number EPA 402/K-12/002, *available at* <https://www.epa.gov/Radon/pdfs/citizensguide.pdf>.

<https://files.hudexchange.info/resources/documents/OEE-Radon-Fact-Sheet.pdf> .

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