

Lead-Based Paint Hazard Control  
Healthy Homes Demonstration and Education  
Healthy Homes Research

OMB Approval No. 2539-0008 (exp 1/31/2004)  
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The information collection requirements contained in this notice of funding availability and application kit will be used to rate applications, determine eligibility, and establish grant amounts.

Selection of applications for funding under the three Lead Hazard Control Programs are based on the rating factors listed in the HUD SuperNOFA for 2001.

For the Lead-Based Paint Hazard Control and Healthy Homes Initiative grant programs (Healthy Homes Demonstration and Education and Healthy Homes Research), the public reporting burden for this collection of information is estimated to average 100 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions to reducing this burden, to the Reports Management Officer, Paperwork Reduction Project 2539-0015, Office of Information Technology, U.S. Department of Housing and Urban Development, Washington, DC 20410-3600.

Do not send this form to the above address.

The agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection displays a valid control number.

The information submitted in response to these Notices of Funding Availability for Lead Hazard Control Grant Programs is subject to the disclosure requirements of the Department of Housing and Urban Development Reform Act of 1989 (Pub.L. 101-235, approved December 15, 1989, 42 U.S.C. 3545).

**Warning:** HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802).

This publication contains the Application Kits and Notices of Funding Availability for three grant programs administered by the HUD Office of Healthy Homes and Lead Hazard Control. They are:

***Lead-Based Paint Hazard Control.*** The purpose of the Lead-Based Paint Hazard Control Grant program is to reduce the exposure of young children to lead-based paint hazards in their homes. This program provides funding to States, Indian, and local governments to evaluate and reduce lead-based paint hazards in private housing rented or owned by low-income families.

***Healthy Homes Research Program.*** The purpose of this program is to fund research about health and safety hazards in the home environment that produce serious diseases and to develop accurate, cost-effective methods for assessing and controlling these hazards. This program provides funding to State, local, and Indian tribal governments and not-for-profit and for-profit organizations.

***Healthy Homes Demonstration and Education Program.*** The purpose of the Healthy Homes Demonstration and Education Program is to build upon the Department's existing activities on housing related health and safety issues, including lead hazard control, building structural safety, electrical safety, and fire protection, to address multiple childhood diseases and injuries related to housing in a more coordinated fashion. The demonstration and education program provides funding for projects that demonstrate effective hazard assessment and intervention methods and projects that focus on public education and outreach efforts. These programs provide funding to State, local, and Indian tribal governments, and not-for-profit and for-profit organizations.

A single copy of the General Section of the SuperNOFA is provided at the end of this book. The General Section applies to all three grant programs in this publication. Included with the General Section are a HUD Field Offices list and an Empowerment Zone/Entitlement Community (EZ/EC) Main Contact list.

In addition, forms required by a specific program are provided in the Kits. Forms common to all three Office of Healthy Homes and Lead Hazard Control programs are provided in the Annexes and Common Forms Section of this publication.

**Office of Healthy Homes and Lead Hazard Control  
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# **Healthy Homes Research Application Kit Fiscal Year 2001**

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U. S. Department of Housing and Urban Development  
Washington, D.C. 20410

Office of Healthy Homes and Lead Hazard Control

APPLICATION KIT FOR FY2001 HEALTHY HOMES RESEARCH GRANT PROGRAM

Dear Applicant:

Thank you for requesting an application package for grants for Healthy Homes Research from the Department of Housing and Urban Development. The Department intends to award grants and/or cooperative agreements to support research projects that address the topic areas listed in Section 1 of the application kit and described in more detail in section III(C)(2) of this NOFA.

Approximately \$1.5 million in Healthy Homes Research grant funding will be available to fund selected research projects. It is expected that approximately 3-5 grants or cooperative agreements of approximately \$200,000 to \$600,000 each will be awarded to selected applicants.

Section 2 of this application kit contains detailed instructions for each component of the application submission. The necessary application forms and instructions are included in Annex 1 of this application kit and in the "Forms section" of this document. In particular, please be sure to complete the Checklist in Annex 1. Ensure that you have met all the requirements for a complete application. Applicants may address more than one of the research topic areas in their proposals. HUD will also consider funding applications for research on topics that, although not specifically listed in section III(C)(2) of the program area, are consistent with the overall goals and objectives of the NOFA.

Before you begin preparing your application, please read the entire application kit and NOFA to become knowledgeable about the process and to ensure that your proposed research project meets the program objectives and is eligible for assistance.

In accordance with the Reform Act of 1989, HUD cannot provide any information on the relative standing of any application during the selection process. However, prior to submission, you may ask questions about the NOFA or application kit. Questions should be directed to Ms. Ellen Taylor, at (202) 755-1785, ext. 116. This is not a toll-free number.

Applicants are advised that proposals submitted in response to this NOFA are subject to disclosure under the Freedom of Information Act (FOIA).

**Applications must be postmarked on or before 12:00 midnight (Eastern Time), May 17, 2001 (see the General Section of this Super NOFA for additional details).**

We applaud your interest in identifying innovative ways to make homes safe for our nation's children. Good luck!

Sincerely,

David E. Jacobs, PhD  
Acting Director

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## HEALTHY HOMES RESEARCH PROGRAM

### SECTION 1. GENERAL INSTRUCTIONS AND GUIDELINES FOR APPLICANTS

**The Notice of Funding Availability (NOFA) can be found at the back of this application package and should be read before preparing the application.**

#### **Background and General Instructions for Submitting Applications**

- 1. Purpose:** The purpose of this research grant program is to fund research in key topic areas related to the evaluation and control of residential environmental health and safety (EHS) hazards. HUD anticipates that this research will: 1) improve methods for the detection and control of EHS hazards in homes, and 2) increase the efficacy and cost-effectiveness of EHS hazard reduction interventions.
- 2. Legislative Authority:** This activity is authorized under Sections 1051 and 1052 of The Residential Lead-Based Hazard Reduction Act of 1992 (Public Law 102-550), which is Title X of the Housing and Community Development Act of 1992; sections 501 and 502 of the Housing and Urban Development Act of 1970; and the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001, Pub.L. 106-377, approved October 27, 2000.
- 3. Eligible Research Topics:** The research topic areas that are eligible for funding include the following (a more thorough discussion of these topics is provided in section III(C)(2) of the attached NOFA):
  - i) Evaluation of Residential EHS Hazard Control Methodologies;
  - ii) Low-Cost Analytical Techniques for the Rapid, On-Site Determination of Environmental Contaminants; or
  - iii) New or Novel Methods of EHS Hazard Evaluation or Control, or Other Areas of Research that are Consistent with the Overall Goals of this NOFA.
- 4. Eligible Applicants:** Academic and not-for-profit institutions located in the U.S., State and local governments and Federally-recognized Indian Tribes are eligible under all existing authorizations. For-profit firms are eligible; however, they are not allowed to include a fee in the cost proposal (i.e., no profit can be made from the project). Federal agencies and Federal employees are not eligible to participate in this program.
- 5. Allocation Amounts:** Approximately \$1.5 million will be available to fund research grants. Grants will be awarded on a competitive basis following evaluation of all proposals according to the criteria described in Section V(B) of the program section of the SuperNOFA. HUD anticipates that individual awards will range from approximately \$200,000 to approximately \$600,000.
- 6. Completion of Work:** Applicants are encouraged to plan projects that can be completed in a period of 1 to 2 years.
- 7. Application Deadline and Submittal.** Please refer to the NOFA, published in the Federal Register and reproduced in Annex 3 of this application kit, for the deadline for the receipt of applications. Applications must be submitted complete, and on-time as required in the NOFA. Facsimiles and electronically transmitted applications are not authorized and are not acceptable. Applications received after the deadline will be ineligible for consideration.

**Submit an original and four copies of your application package to:**

For mailed applications:

U.S. Department of Housing and Urban Development  
Office of Healthy Homes and Lead Hazard Control, Room P3206  
Attention: Ellen R. Taylor  
451 7th Street, SW  
Washington, DC 20410

For overnight/express mail or hand carried applications:

HUD Office of Healthy Homes and Lead Hazard Control  
490 L'Enfant Plaza, SW, Room 3206  
Attention: Ellen R. Taylor  
Washington, DC 20024.

**8. Final Assembly of an Application Package.** Annex 1 and the “Forms section” of this document provide all of the forms, certifications, and accompanying instructions necessary to apply for an award. The applicant should assemble the application package in the order shown in the *Checklist and Submission Table of Contents* provided in Annex 1, *number each page sequentially*, and *denote the appropriate page number on the Checklist sheet* that should be *included with the submission*.

**The narrative Response to the Rating Factors and Project Description cannot exceed a total of 25 pages** (this does not include the budget or materials in the appendices). Required tables may be included as part of the narrative response (subject to the page limits) or may be provided in the appendices. **Appendices are limited to 20 pages total**, not including mandatory materials (budget detail and justification, organizational chart, resumes, job descriptions, letters of commitment and memoranda of agreement from participating organizations). Non-mandatory materials submitted in excess of 20 pages will not be reviewed.

**9. Correction of Minor Technical Deficiencies.** HUD will notify you, in writing by fax and mail, of any minor technical deficiencies in the application. These include items that do not affect scoring, such as a missing certification or a missing signature. Corrections you submit must be received at the HUD Office of Healthy Homes and Lead Hazard Control within 14 calendar days from the date of HUD's letter notifying you of any technical deficiencies. Failure to respond to the technical deficiencies within the allotted 14 days will result in the application not being considered for funding.

You will only be permitted to correct minor technical deficiencies, as identified by HUD. Deficiencies determined by HUD to be substantive (i.e., deficiencies that could affect an application's score) may not be corrected.

**10. Late Applications, Modifications of Applications, and Withdrawals of Applications**

- a. Any application received at the office designated in the solicitation after the exact date and time specified for receipt will not be considered.
- b. Hand-delivered applications must be received in the designated office by the application deadline date and time (documentation is the notation on the application wrapper of the time and date received by the designated office).
- c. Any modification or correction of an application is subject to the conditions described in this paragraph.
- d. Applications may be withdrawn by written notice, facsimile or telegram (including mailgram) received

at any time prior to award. Applications may be withdrawn in person by you or your authorized representative, provided their identity is made known and they sign a receipt for the application prior to award.

### **Guidance on Requirements Issues**

Please refer to the General Section found in the Forms Section of this SuperNOFA Application Kit.

### **Other Information**

Please refer to the **General Section** of the SuperNOFA at the back of the Application Kit Book. Information about Healthy Homes Initiative programs is also available in the Catalog for Federal Domestic Assistance (CFDA) which may be viewed at [www.cfda.gov](http://www.cfda.gov). The catalog number for the Healthy Homes Initiative programs (which includes both the Healthy Homes Demonstration and Education Program and the Healthy Homes Research Program) is 14.901. This number must be entered on form SF 424, Application for Federal Assistance.

**Further Information.** If you have any questions regarding your application or any related matters, you may contact Ellen R. Taylor at (202) 755-1785, ext. 116. (This is not a toll-free number).

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## SECTION 2. PREPARING YOUR APPLICATION

### Transmittal Letter

Prepare a one-page letter applying for the grant and signed by the Chief Executive or authorized official. The transmittal letter should indicate the applicant organization and the amount of the grant requested. Include the name and telephone number of the individual to contact for further information pertaining to the application.

### Project Abstract

The Project Abstract (**limit of two pages**) shall include: the project title, names and affiliations of principal investigators, a statement of objectives, methods to be employed, and the significance of the proposed research to achieving HUD's goals and objectives for a given topic area. Also provide the total estimated cost of the proposed project and the total award that the applicant is requesting from HUD.

### Required Forms

All of the forms that must be completed and submitted as part of an application package are provided in Annex 1 and the "Forms section" of this document. Please read the accompanying directions before completing each form. A checklist is also provided in Annex 1 as an aid to help ensure that you have submitted all of the required items. Annex 2 of this document contains examples of completed budget forms (Total Budget (Federal Share and Matching) SF-424A and HUD-424-M). The forms that must be completed and submitted with your application include the following:

- Checklist and Submission Table of Contents
- SF 424 Application for Federal Assistance
- SF 424A Budget Information/Non-Construction Programs
- Total Budget (Federal Share and Matching)
- SF 424B Assurances/Non-Construction Programs
- Form HUD-424-M Federal Assistance Funding Matrix
- HUD 2880 Disclosure and Update Report Form
- SF LLL Disclosure of Lobbying Activities
- HUD-50071 Certification of Payments to Influence Federal Transactions
- HUD-50070 Certification for a Drug-Free Workplace
- HUD-2992 Certification Regarding Debarment and Suspension
- HUD-2993 Acknowledgment of Application Receipt

Many of these forms are available in electronic form from the HUD website ([www.hud.gov](http://www.hud.gov)) and the Office of Healthy Homes and Lead Hazard Control website ([www.hud.gov/lea/leahome.html](http://www.hud.gov/lea/leahome.html)).

### Response to Rating Factors and Project Description

The response to rating factors and project description must not exceed 25 pages, including visual materials such as charts and graphs (see section III(C)(2) of the NOFA for description of topic areas). Please respond to each of the five rating factors along with your project description. Any important attachments, appendices, references, or other relevant information should be placed in the appropriate Appendix, but the total length of all appendices must not exceed 20 pages. Brevity will assist in the efficient review of applications.

This NOFA also includes the following specific format requirement:

**Responses must have clearly and consecutively numbered pages, a complete table of contents (see Checklist and Submittal Table of Contents, Annex 1, and be typewritten on one (1) side only on**

**8 1/2" x 11" paper using a 12 point font with not less than 3/4 inch margins on all sides.**

Within the grant resources available, HUD intends to fund the highest rated applications among those that achieve a minimum score of 65 points.

Your project description should address the following:

**A) Objectives**

- Describe the major objectives of the project.
- Identify the project's expected significance with respect to achieving some or all of HUD's stated goals and objectives for one or more of the topic areas described in section III(C)(2) of the NOFA.
- Discuss the project with respect to the present state of knowledge of the field, related work in progress by the Principal Investigator under other support, and to similar work in progress elsewhere.

**B) Study Design**

- Outline the general plan of work and provide an adequate description of experimental methods and procedures, including sampling and data collection procedures, analytical methods, and methods for evaluating project data.
- Describe quality assurance practices. These should be sufficient to meet project objectives and minimize loss of data due to out-of-control conditions or equipment malfunctions.

**C) Project Management Plan**

- List in chronological order a schedule of accomplishments, progress, and milestones anticipated over the length of the project.
- Indicate by whom each element of the work plan will be carried out, including any supporting agencies, consultants, subgrantees and subcontractors.

**D) Other Project Information**

- Projects involving human subjects: Such projects must ensure that subjects are protected from research risks in conformance with the Common Rule (*Federal Policy for the Protection of Human Subjects*, 45 CFR part 690). All projects involving human subjects must either: (1) have approval from the organization's Institutional Review Board (IRB) before issuance of an award (if available, a copy of the IRB approval form must be included with the application as an attachment); or (2) identify the applicable subsection exempting the proposal from IRB review, as established in section 101(b) of the Common Rule.

**E) Biographical Sketches**

- Provide biographical sketches of the Principal Investigator/Project Director and other senior personnel on the project. These should be concise (each shall not exceed 3 pages) and limited to information that is relevant in assessing the qualifications of individuals to conduct and/or manage this proposed project.

## Factors for Award and Scoring

Applications will be reviewed by a Source Evaluation Board which will assign each application a numerical score based on the rating factors presented below (see also section V(B) of the NOFA). Each factor is weighted as indicated by the number of points that are attainable for it. The maximum score that can be assigned to an application is 100 points. Applicants should be certain that these factors are adequately addressed in the project description (see section 2) and accompanying materials.

1. Capacity of the Applicant and Relevant Organizational Experience	20 pts.
2. Need/Extent of the Problem	15 pts.
3. Soundness of Approach	45 pts.
4. Leveraging Resources	10 pts.
5. Comprehensiveness and Coordination	10 pts.
Empowerment Zone and/or Enterprise Community Bonus Points *	<u>    n.a.    </u>
TOTAL:	100 pts.

\* Empowerment Zones (EZ) and Enterprise Communities (EC) bonus points do not apply to this NOFA.

**Rating Factors**

**Requirement Summary**

**Factor 1.**

**CAPACITY OF THE APPLICANT AND RELEVANT ORGANIZATIONAL EXPERIENCE  
20 points**

In this factor, you should:

This factor addresses the extent to which you have the ability and organizational resources necessary to successfully implement the proposed activities in a timely manner. The rating of the "applicant" will include any consultants, sub-recipients, and members of consortia which are firmly committed to the project (generally, "subordinate organizations"). Major subfactors include the following:

**A. The Capability and Qualifications of the Principal Investigator and Key Personnel (10 points).**

- Discuss your ability to successfully implement the proposed work
- Provide concise descriptions of the skills and experience of key personnel.

Qualifications to carry out the proposed study as evidenced by academic background, relevant publications, and recent (within the past 10 years) relevant research experience. Publications and research experience are considered relevant if they required the acquisition and use of knowledge and skills that can be applied in the planning and execution of the research that is proposed under this NOFA.

**B. Past Performance of the Research Team in Managing Similar Research (10 points)**

- Describe past research performance that would be relevant for assessing the research team's capabilities.

Your demonstrated ability to successfully manage the various aspects of a complex research study in such areas as logistics, research personnel management, data management, quality control, community research involvement (if applicable), and report writing, as well as overall success in project completion (i.e., on time and within budget). You should also demonstrate that the project would have adequate administrative support, including clerical and specialized support in areas such as accounting and equipment maintenance.

**Requirement Summary**

**Factor 2.**

**NEED/EXTENT OF THE PROBLEM  
15 Points**

- Demonstrate the responsiveness of the proposal to HUD's research objectives.

You should demonstrate responsiveness to solicitation objectives, and explain the likelihood that the research would make a significant contribution towards achieving some or all of HUD's stated goals and objectives for one or more of the topic areas described in sections III(C)(2) of the NOFA.

If you are seeking funding for "other" research, as is described in section III(C)(2)(c), you must provide an explanation which demonstrates the importance and need for the research with respect to improving the efficacy and cost-effectiveness of methods used for residential EHS hazard evaluation and control.

**Requirement Summary** Factor 3.

**SOUNDNESS OF APPROACH**  
45 Points

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

**A. Soundness of the Study Design**  
(25 points)

- A thorough and feasible study design
  - Knowledge of relevant scientific literature
  - Plan for analyzing and archiving data
- Your study must be described in sufficient detail to clearly indicate the following: thorough knowledge of the relevant scientific literature; a logical sequence of steps or phases with identification of any important “decision points”; evidence of a statistically based design (including a clear, testable hypothesis); use of a control group, as appropriate; overall feasibility of implementation; and clear plans for data analysis and archiving.

**B. Quality Assurance Mechanisms**  
(8 points)

- Describe the quality assurance mechanisms which will be integrated into the research design.
- You must describe the quality assurance mechanisms which will be integrated into the research design to ensure the validity and quality of the results. Areas to be addressed include acceptance criteria for data quality, procedures for selection of samples/sample sites, sample handling, measurement and analysis, and any standard/nonstandard quality assurance/control procedures to be followed. Refereed documents (e.g., government reports, peer-reviewed academic literature) which provide the basis for the quality assurance mechanisms should be cited.

**C. Project Management Plan**  
(5 points)

- Provide a project management plan that identifies major activities, tasks and deliverables.
- The proposal should include a management plan that provides a schedule for the completion of major activities, tasks and deliverables, with an indication of project milestones, and that demonstrates that there will be adequate resources (e.g., personnel, financial) to successfully meet the proposed schedule and identifies responsible entities

**D. Program Evaluation**  
(5 points)

- Provide performance goals and describe how outcomes will be measured.
- You must discuss the performance goals for your project and describe how you will evaluate your performance. You should include your plans for tracking progress toward milestones, collecting and analyzing information on outcomes and reporting results.

**E. Budget**  
(2 points)

- Provide a clear and thorough budget proposal.
- Your proposed budget will be evaluated for the extent to which it is reasonable, clearly justified, and consistent with the intended use of program funds. HUD is not required to approve or fund all proposed activities. You must thoroughly document and justify all budget categories and costs (Part B of Standard Form 424A) and all major tasks. Describe in detail your budgeted costs for each required program element (major task) included in your overall plan, including consultant and subcontract costs. (Provide a similar cost proposal breakout for any subcontracts, grants or subrecipients receiving greater than 10 percent of the total Federal budget request.) The narrative justification associated with these budgeted costs should be included as an attachment to the Total Budget (Federal Share and Matching). (The budget narrative justification is not counted as part of the 25 page limit for rating the responses.)

- Direct Labor costs should include all full and part time staff required for the (maximum 36 month) planning and implementation phase of the project. These costs should be based on FTE (full time equivalent) or hours/year (i.e., one FTE equals 2080 hours per year).

- You should budget for two trips to HUD headquarters in Washington, DC (planing each trip for two people, assuming a one or two day stay, depending on your location).
- A separate budget proposal should be provided for subrecipients receiving more than 10% of the total Federal budget request
- You should be prepared to provide supporting documentation for salaries and prices of materials and equipment upon request.
- Organizations that have a federally-negotiated indirect rate should use that rate and the appropriate base. Other organizations should use their current overhead rate.
- Submit as an attachment to the budget sheets the negotiated rate agreements for fringe benefits and indirect costs, if applicable.

The application will not be rated on the proposed cost; however, cost will be considered in addition to the rated factors to determine the proposal most advantageous to the Government. Cost will be the deciding factor when proposals ranked under the listed factors are considered acceptable and are substantially equal.

**Requirement Summary**    **Factor 4.**

**LEVERAGING RESOURCES**  
**10 points**

- Demonstrate how the effectiveness of the grant funds would be increased by the contribution of additional resources.
 

The extent to which you can demonstrate that the effectiveness of the HUD research grant funds is being increased by securing other public and/or private resources or by structuring the research in a cost-effective manner, such as integrating the project into an existing research effort. Resources may include funding or in-kind contributions (such as services, facilities or equipment) allocated to the purpose(s) of the research. All in-kind contributions should be given a monetary value.

You must provide evidence of leveraging/partnerships by including letters of commitment, memoranda of understanding, or agreements to participate from those entities identified as partners in the application. Assertions of leveraging without such evidence will not be taken into account. Each letter of commitment, memorandum of understanding, or agreement to participate should include the organization’s name, proposed level of commitment (including a dollar value) and responsibilities as they relate to the proposed project. The commitment must also be signed by an official of the organization legally able to make commitments on behalf of the organization.

**Requirement Summary** Factor 5.**COMPREHENSIVENESS AND COORDINATION****10 points**

- Describe how results of the proposed research may be applied by other organizations. You should describe how the expected results of the proposed research efforts can be applied by HUD or other programs to support EHS hazard control evaluation, interventions, planning, policy development, and/or public education in the area of residential hazard control.

**Attachments to Rating Factors**

Attach any items or documents to your application which support or are part of your Healthy Homes Research application. These appendices should be limited to maps, data tables, documents and forms that directly pertain to your proposed research project and must be either specifically referenced and/or requested in responding to the rating factors for award. Additional narrative explanation for the rating factors is not acceptable and will not be reviewed. Information, materials, and documents which do not, in HUD's sole opinion, meet these requirements will not be considered in the application review. Note that it is not necessary to submit copies of individual training or professional certificates or licenses.

To speed assembly of the application, please use the following sequence for the appendices:

- Appendix 1 - Materials relating to Rating Factor 1 through Rating Factor 5, in order, including resumes of the key staff (not to exceed 3 pages each)
- Appendix 2 - Materials related to the forms
- Appendix 3 - Other related materials

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### **SECTION 3. ADMINISTRATIVE PROVISIONS**

#### **Obligation of funds**

All payments will be made as a grant or cooperative agreement that is either fixed price or cost reimbursable, except that a one (1) percent final payment shall be withheld and made upon completion of all tasks and the delivery and acceptance of the final report by the Government Technical Representative.

#### **Increases of awards**

After executing the grant agreement and initial obligation of funds, HUD will not increase the grant sum or the total amount to be obligated based upon the original scope of work.

#### **Deobligation**

Reasons for Deobligation. HUD may deobligate amounts for the grant if proposed activities are not initiated or completed within the required time period after the effective date of the award. The grant agreement will set forth in detail other circumstances under which funds may be deobligated and other sanctions imposed.

Treatment of Deobligated Funds. HUD may undertake either or both of the following actions:

- Readvertise the availability of funds that have been deobligated under this section in a new NOFA; or
- Choose additional applications which were submitted in response to this NOFA in accordance with the selection process described in Section V of the NOFA.

#### **Reports**

The grantee shall submit the following types of reports:

- Progress Reports. The grantee shall submit quarterly progress reports. These progress reports shall include expenditure reports and a narrative describing important events, milestones, work plan progress, and problems encountered during the period covered. The grantee will be provided the applicable forms and reporting instructions.
- Final Report. The grantee shall submit a final report. The final report shall summarize the grantee's plans, execution of the plans, achievements noted, and lessons learned. The report need not be lengthy, but should be of a quality and detail to provide free-standing description to any outside reader of all of the applicant's work and achievement under the grant.

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# **Healthy Homes Research**

## **Application Kit Annexes**

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**Annex 1**  
**Checklist and Submission Table of Contents**

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## Checklist and Submission Table of Contents

### Healthy Homes Research NOFA

The following checklist is provided to ensure that you have submitted all of the required items in order for you to receive consideration for funding under this NOFA. Applicants must check off each item that they have included in their submission package and note the corresponding page number where the response is located. Applicants are to include this Checklist and Submission Table of Contents with the proposal. Application pages must be consecutively numbered.

<u>Check Off</u>	<u>Page Number</u>
<input type="checkbox"/> Transmittal Letter (limited to 1 page)	Cover page
<input type="checkbox"/> Checklist And Submission Table Of Contents (this form)	p. ____
<input type="checkbox"/> Project Abstract (limited to 2 pages)	p. ____

#### Application Forms

<input type="checkbox"/> Standard Form 424 (Application for Federal Assistance)	p. ____
<input type="checkbox"/> Standard Form 424A (Budget Information/ Non-Construction Programs)	p. ____
<input type="checkbox"/> Standard Form 424B (Assurances/Non-Construction Programs)	p. ____
<input type="checkbox"/> Total Budget (Federal Share and Matching)	p. ____
<input type="checkbox"/> Form SF-LLL Disclosure of Lobbying Activities Required	p. ____
<input type="checkbox"/> Form SF-LLL not required.	
<input type="checkbox"/> Form HUD-424-M (Federal Assistance Funding Matrix)	p. ____
<input type="checkbox"/> HUD 2880 Disclosure and Update Report	p. ____
<input type="checkbox"/> HUD 50070 Drug-Free Workplace Certification	p. ____
<input type="checkbox"/> HUD 50071 Certification of Payments to Influence Federal Transactions	p. ____
<input type="checkbox"/> HUD 2992 Certification of Status Regarding Debarred Applicants	p. ____

#### Response to Rating Factors/Project Description (limited to 25 pages)

<input type="checkbox"/> 1. Capacity of the Applicant and Relevant Organizational Experience	p. ____
<input type="checkbox"/> 2. Need/Extent of the Problem	p. ____
<input type="checkbox"/> 3. Soundness of Approach	p. ____
<input type="checkbox"/> 4. Leveraging/Resources	p. ____
<input type="checkbox"/> 5. Comprehensiveness and Coordination	p. ____

#### Appendices (if applicable)

<input type="checkbox"/> Appendix 1 - Material in support of Rating Factors 1 through 5	p. ____
<input type="checkbox"/> Appendix 2 - Materials related to the Forms	p. ____
<input type="checkbox"/> Appendix 3 - Other materials related to the application	p. ____
<input type="checkbox"/> HUD 2993 Acknowledgment of Application Receipt	p. ____
<input type="checkbox"/> HUD 2994 Client Comments and Suggestions (Optional)	p. ____

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**Annex 2**  
**Sample Completed Forms**

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**Total Budget (Federal Share and Matching)**

Name and Address of Applicant

**EXAMPLE**

**Detailed Description of Budget (for full grant period)**

**Category**

1. Personnel (Direct Labor)	Estimated Hours	Rate per Hour	Estimated Cost	Federal Share	Match
<b>Position or Individual</b>					
Principal Investigator	2,000	\$39.46	\$78,920	\$78,920	\$0
Research Assistant	2,400	\$17.35	\$41,640	\$41,640	\$0
Senior Environmental Engineer	1,100	\$28.34	\$31,174	\$31,174	\$0
Epidemiologist	1,100	\$31.60	\$34,760	\$27,808	\$6,952
Statistician	800	\$38.40	\$30,720	\$30,720	\$0
Toxicologist	600	\$25.60	\$15,360	\$15,360	\$0
Social Scientist	400	\$25.90	\$10,360	\$5,360	\$5,000
Senior Chemist	2,100	\$28.34	\$59,514	\$59,514	\$0
Lab Technician	2,100	\$10.66	\$22,386	\$18,000	\$4,386
Environmental Engineer	2,100	\$18.95	\$39,795	\$31,000	\$8,795
	0	\$0.00	\$0	\$0	\$0
	0	\$0.00	\$0	\$0	\$0
	0	\$0.00	\$0	\$0	\$0
	0	\$0.00	\$0	\$0	\$0
	0	\$0.00	\$0	\$0	\$0
<b>Total Direct Labor Cost</b>			\$364,629	\$339,496	\$25,133
<b>2. Fringe Benefits</b>					
	<b>Rate</b>	<b>Base</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Fringe</b>	34.00%	\$364,629	\$123,974	\$99,215	\$24,759
	0.00%	\$364,629	\$0	\$0	\$0
	0.00%	\$364,629	\$0	\$0	\$0
	0.00%	\$364,629	\$0	\$0	\$0
	0.00%	\$364,629	\$0	\$0	\$0
	0.00%	\$364,629	\$0	\$0	\$0
		\$364,629	\$0	\$0	\$0
		\$364,629	\$0	\$0	\$0
<b>Total Fringe Benefits Cost</b>			\$123,974	\$99,215	\$24,759
<b>3. Travel</b>					
<b>3a. Transportation - Local Private Vehicle</b>					
	<b>Mileage</b>	<b>Rate per Mile</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Research Assistant</b>	500	\$0.315	\$158	\$158	\$0
	0	\$0.000	\$0	\$0	\$0
	0	\$0.000	\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
<b>Subtotal - Trans - Local Private Vehicle</b>			\$158	\$158	\$0
<b>3b. Transportation - Airfare (show destination)</b>					
	<b>Trips</b>	<b>Fare</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Travel to Washington</b>	4	\$520.00	\$2,080	\$2,080	\$0
<b>Travel for training</b>	1	\$390.00	\$390	\$390	\$0
<b>Travel to conferences</b>	1	\$500.00	\$500	\$500	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
<b>Subtotal - Transportation - Airfare</b>			\$2,970	\$2,970	\$0

Total Budget (Federal Share and Matching)

**EXAMPLE**

**Detailed Description of Budget**

	Quantity	Unit Cost	Estimated Cost	Federal Share	Match
<b>3c. Transportation - Other</b>					
Vehicle lease (\$275/mo)	24	\$275.00	\$6,600	\$3,000	\$3,600
Local Travel on Trips	200	\$0.315	\$63	\$63	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
<b>Subtotal - Transportation - Other</b>			\$6,663	\$3,063	\$3,600
<b>3d. Per Diem or Subsistence (indicate location)</b>	Days	Rate per Day	Estimated Cost	Federal Share	Match
Travel to Washington	8	\$180.00	\$1,440	\$1,440	\$0
Travel for training	5	\$135.00	\$675	\$675	\$0
Travel to conferences	4	\$155.00	\$620	\$620	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
<b>Subtotal - Per Diem or Subsistence</b>			\$2,735	\$2,735	\$0
<b>Total Travel Cost</b>			\$12,526	\$8,926	\$3,600
<b>4. Equipment (Only items over \$5,000 each)</b>	Quantity	Unit Cost	Estimated Cost	Federal Share	Match
XRF Instrument	1	\$16,000.00	\$16,000	\$16,000	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
<b>Total Equipment Cost</b>			\$16,000	\$16,000	\$0
<b>5. Supplies and Materials (Items under \$5,000)</b>					
<b>5a. Consumable Supplies</b>	Quantity	Unit Cost	Estimated Cost	Federal Share	Match
Office supplies (\$125/mo)	24	\$125.00	\$3,000	\$1,500	\$1,500
Educational Materials (describe)	1	\$1,000.00	\$1,000	\$1,000	\$0
Field Supplies (describe)	300	\$1.50	\$450	\$450	\$0
Laboratory Supplies (\$200/mo)	24	200	\$4,800	\$4,800	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
<b>Subtotal - Consumable Supplies</b>			\$9,250	\$7,750	\$1,500
<b>5b. Non-Consumable Materials</b>	Quantity	Unit Cost	Estimated Cost	Federal Share	Match
XRF Source	1	\$2,000.00	\$2,000	\$2,000	\$0
Software	3	\$350.00	\$1,050	\$1,050	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
			\$0	\$0	\$0
<b>Subtotal - Non-Consumable Materials</b>			\$3,050	\$3,050	\$0
<b>Total Supplies and Materials Cost</b>			\$12,300	\$10,800	\$1,500



Budget Summary

Healthy Homes Research NOFA

Analysis of Total Estimated Costs	Estimated Cost	Percent of Total	Percent of Labor
1 Personnel (Direct Labor)	\$364,629	61.7%	
2 Fringe Benefits	\$123,974	21.0%	34.0%
4 Travel	\$12,526	2.1%	
5 Equipment	\$16,000	2.7%	
3 Supplies and Materials	\$12,300	2.1%	
6 Consultants	\$2,700	0.5%	
7 Contracts and Sub-Grantees	\$5,100	0.9%	
8 Other Direct Costs	\$2,850	0.5%	
9 Indirect Costs	\$51,303	8.7%	
<b>Total</b>	<b>\$591,382</b>	<b>100.0%</b>	
Federal Share	\$484,487	81.92%	
Match	\$106,895	22.06%	Expressed as a percentage of the Federal Share

**E X A M P L E**

# Budget Information - Non-Construction Programs

# E X A M P L E

Exhibit B

OMB Approval No. 0348-0044

Section A - Budget Summary						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1.						
2.						
3.	<b>Do</b>	<b>Not</b>	<b>Complete</b>	<b>This</b>	<b>Section</b>	
4.						
5. Totals						

Section B - Budget Categories					
6. Object Class Categories	Grant Program, Function or Activity				(5) Grand Total
	(1) HUD Request	(2) Match			
a. Personnel (Direct Labor)	\$339,496	\$25,133			\$364,629
b. Fringe Benefits	\$99,215	\$24,759	<b>Do</b>	<b>Do</b>	\$123,974
c. Travel	\$8,926	\$3,600	<b>Not</b>	<b>Not</b>	\$12,526
d. Equipment	\$16,000	\$0	<b>Use</b>	<b>Use</b>	\$16,000
e. Supplies and Materials	\$10,800	\$1,500	<b>This</b>	<b>This</b>	\$12,300
f. Consultants	\$2,700	\$0	<b>Column</b>	<b>Column</b>	\$2,700
g. Contracts and Sub-Grantees	\$5,100	\$0			\$5,100
h. Other Direct Costs	\$2,250	\$600			\$2,850
i. Total Direct Charges (sum of 6a-6h)	<b>\$484,487</b>	<b>\$55,592</b>			<b>\$540,079</b>
j. Indirect Costs	\$0	\$51,303			\$51,303
k. Totals (sum of 6i and 6j)	<b>\$484,487</b>	<b>\$106,895</b>			<b>\$591,382</b>
7. Program Income					

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## Federal Assistance Funding Matrix

The applicant must provide the funding matrix shown below, listing each program for which Federal funding is being requested, and complete the certifications.

Program*	Applicant Share	Federal Share	State Share	Local	Other	Program Income	Total
Healthy Homes Research	\$106,895	\$484,487					\$591,382
<b>Grand Totals</b>	\$106,895	\$484,487					\$591,382

\* For FHIPs, show both initiative and component

### Instructions for the HUD-424-M

Public reporting burden for this collection of information is estimated to average 45 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless that collection displays a valid OMB control number.

This form is to be used by applicants requesting funding from the Department of Housing and Urban Development for application submissions for Federal assistance. Enter the following information:

**Program :** The HUD funding program you are applying under.

**Applicant Share:** Enter the amount of funds or cash equivalent of in-kind contributions you are contributing to your project or program of activities.

**Federal Share:** Enter the amount of HUD funds you are requesting with your application.

**State Share:** Enter the amount of funds or cash equivalent of in-kind services the State is contributing to your project or program of activities.

**Local Share:** Enter the amount of funds or cash equivalent of in-kind services your local government is contributing to your project or program of activities.

**Other:** Enter the amount of other sources of private, non-profit, or other funds or cash equivalent of in-kind services being contributed to your project or program of activities.

**Program Income:** Enter the amount of program income you expect to generate and contribute to this program over the life of your award.

**Total:** Please total all columns and fill in the amounts.

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**Healthy Homes Research**

**Fiscal Year 2001**

**Notice of Funding Availability**

**Federal Register Notice**

This is a copy of the NOFA published in the Federal Register. Please see the General Section of the NOFA in the back of this book.

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**DEPARTMENT OF HOUSING  
AND URBAN DEVELOPMENT**

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**HEALTHY HOMES  
RESEARCH PROGRAM**



## FUNDING AVAILABILITY FOR HEALTHY HOMES RESEARCH PROGRAM OVERVIEW

**Purpose of the Program.** To fund research to improve methods for detecting and controlling residential environmental health and safety (EHS) hazards. The purpose of the Healthy Homes Initiative is to develop, demonstrate and promote cost effective, preventive measures to correct multiple safety and health hazards in the home environment which produce serious diseases and injuries in children.

**Available Funds.** Approximately \$1.5 million.

**Eligible Applicants.** Academic and not-for-profit institutions located in the U.S., State and local governments, and Federally-recognized Indian tribes are eligible to apply. For-profit firms also are eligible; however, they are not allowed to earn a fee.

**Application Deadline.** May 17, 2001.  
**Match.** None required.

### Additional Information

If you are interested in applying for funding under this program, please review carefully the General Section of this SuperNOFA and the following additional information.

#### I. Application Due Date, Application Kits, Further Information, and Technical Assistance

**Application Due Date.** Submit an original and four copies of your completed application on or before 12:00 midnight, Eastern time, on May 17, 2001, at the address shown below.

See the General Section of this SuperNOFA for specific procedures that you must follow for the form of application submission (e.g., mailed applications, express mail, overnight delivery, or hand carried).

**Address for Submitting Applications.**  
**For Mailed Applications.** The address for mailed applications is: Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control, 451 Seventh Street, SW, Room P3206, Washington, DC 20410.

**For Overnight/Express Mail or Hand Carried Applications.** The address for applications that are hand carried or sent via overnight/express mail delivery is: HUD Office of Healthy Homes and Lead Hazard Control, Suite 3206, 490 L'Enfant Plaza, SW, Washington, DC 20024. Hand carried applications will be accepted at this address (490 L'Enfant) up until 5:00 pm on the application due date.

After 5:00 pm on the application due date, hand carried applications will be accepted until 12:00 midnight, in the

South Lobby of HUD Headquarters, 451 Seventh Street, SW, Washington, DC 20410.

**For Application Kits.** You may obtain an application kit from the SuperNOFA Information Center at 1-800-HUD-8929. Persons with speech or hearing impairments may call the Center's TTY number at 1-800-HUD-2209. When requesting an application kit, please refer to the Healthy Homes Research grant program. Please be sure to provide your name, address (including zip code), and telephone number (including area code).

**For Further Information and Technical Assistance.** You may contact: Ms. Ellen Taylor, Office of Healthy Homes and Lead Hazard Control, at the address above; telephone (202) 755-1785, extension 116, or Ms. Karen Williams, Grants Officer, extension 118 (these are not toll-free numbers). Hearing- and speech-impaired persons may access the above telephone number via TTY by calling the toll-free Federal Information Relay Service at 1-800-877-8339.

**Satellite Broadcast.** HUD will hold an information broadcast via satellite for potential applicants to learn more about the program and preparation of the application. For more information about the date and time of the broadcast, you should consult the HUD web site at <http://www.hud.gov>.

#### II. Amount Allocated

Approximately \$1.5 million will be available to fund research proposals in FY 2001. Grants or cooperative agreements will be awarded on a competitive basis according to the Rating Factors described in Section V(B). HUD anticipates awarding three to five grants ranging from approximately \$200,000 to approximately \$600,000.

#### III. Program Description; Eligible Applicants; Eligible Activities

(A) **Program Description. Background.** In the FY 2001 Budget, HUD received a third year of funding to continue the Healthy Homes Initiative (sometimes referred to as the "Initiative" or "HHI") that protects children from housing conditions responsible for multiple diseases and injuries. The Initiative departs from the more traditional approach of attempting to correct one hazard at a time (e.g., asbestos, radon). In April 1999, HUD submitted to Congress a preliminary plan containing a full description of the Initiative. This description (Summary and Full Report) is available on the HUD website at [www.hud.gov/offices/lead](http://www.hud.gov/offices/lead).

In addition to deficiencies in basic housing facilities that may impact

health, changes in the U.S. housing stock and more sophisticated epidemiological methods and biomedical research have led to the identification of new and often more subtle health hazards in the residential environment (e.g., indoor air quality hazards). While such hazards will tend to be found disproportionately in housing that is substandard (e.g. structural problems, lack of adequate heat, etc.), such housing-related environmental hazards may also exist in housing that is otherwise of good quality. Appendix A to this Healthy Homes Research program section of the SuperNOFA briefly describes the housing-associated health and injury hazards HUD considers key targets for intervention. Appendix B to this Healthy Homes Research program section of the SuperNOFA lists the references that serve as the basis for the information provided in this Healthy Homes Research section of this SuperNOFA.

HUD is interested in promoting approaches that are cost-effective and efficient and that result in the reduction of health threats for the maximum number of residents for the long run, and in particular low-income children. The overall goals and objectives of the HHI are:

(1) Mobilize public and private resources, involving cooperation among all levels of government, the private sector, and community-based organizations to develop the most promising, cost-effective methods for identifying and controlling housing-based hazards.

(2) Build local capacity to operate sustainable programs that will continue to prevent and, where they occur, minimize and control housing-based hazards in low and very low income residences when HUD funding is exhausted.

(3) Affirmatively further fair housing and environmental justice. HUD recognizes that there are many key scientific and implementation questions related to this Initiative, some of which were articulated in the HHI Preliminary Plan. With this NOFA, HUD hopes to advance the recognition and control of residential environmental health and safety hazards and more closely examine the link between housing and health.

(B) **Eligible Applicants.** Academic and not-for-profit institutions located in the U.S., State and local governments and Federally-recognized Indian tribes are eligible under all existing authorizations. For-profit firms also are eligible; however, they are not allowed to earn a fee (i.e., no profit can be made

from the project). Federal agencies and Federal employees are not eligible to submit applications. The General Section of the SuperNOFA provides additional eligibility requirements.

(C) *Eligible Activities.* (1) *General Goals and Objectives.* The overall goal of this research is to gain knowledge to improve the efficacy and cost-effectiveness of methods for evaluation and control of environmental health and safety hazards in the home. Through the Healthy Homes Initiative, HUD is assessing and promoting new risk reduction techniques and research on the control of key hazards described in Appendix A. Objectives to be addressed by these projects are:

(a) Investigation of the epidemiology of housing-related hazards and illness and injury.

(b) Development and assessment of low-cost test methods and protocols for identification and assessment of housing-related hazards.

(c) Development and assessment of cost-effective methods for reducing or eliminating housing-related hazards.

(d) Evaluation of the effectiveness of housing interventions and public education campaigns, and barriers and incentives affecting future use of the most cost-effective strategies.

(f) Investigation of the environmental health effects on children living in deteriorated housing and the impact on their development and productivity.

A table of examples of current Healthy Homes and lead-related research projects being funded by HUD can be found in Appendix C.

(2) HUD is interested in the following research topics:

(a) Evaluation of residential Environmental Health and Safety (EHS) hazard control methodologies.

—Controlling excess moisture and dust, and improving indoor air quality (e.g., controlling combustion products) have been identified as key areas in the HHI Preliminary Plan.

(b) Low-cost analytical techniques for the rapid, on-site determination of environmental contaminants of concern (e.g., bioaerosols, pesticides, allergens).

—Establish and validate any necessary procedures, such as extraction and/or digestion, that would work well with the field device/procedure.

—Examine old technology (e.g., colorimetric tests, titrimetric procedures) as well as newer techniques.

—Consider the safety and environmental impacts of the procedure, particularly as used in the field.

(c) New or Novel Methods of EHS Hazard Evaluation or Control, or other

areas of research that are consistent with the overall goals of this research program section of the SuperNOFA.

—Identify and evaluate new methods and/or techniques for EHS hazard control in the residential environment.

—Identify materials and/or procedures that may be used for abatement or for interim controls.

—Show the potential utility of these methods for hazard control and risk reduction.

—Evaluate critical elements and potential weaknesses of the methods or techniques, and address how to minimize the effect of each critical element and/or eliminate or mitigate each weakness.

—Demonstrate where and how these methods have been applied and tested, and/or perform demonstration activities.

—Illustrate the results obtained, and the costs involved.

—Recommend cost-effective changes to the Program for inclusion in future HUD Healthy Homes Initiative grants.

—Additional ideas will be considered with an open mind toward novel techniques and applications.

Although HUD is soliciting proposals for research on these specific topics, the Department will also consider funding applications for research on topics which are relevant under the overall goals and objectives of this research, as described above. In such instances, the applicant should describe how the proposed research activity addresses these overall goals and objectives.

Applicants should consider the efficiencies that might be gained by working cooperatively with some of the recipients of HUD Healthy Homes and Lead Hazard Control grants, who are widely distributed throughout the U.S. Information on current grantees is available at [www.hud.gov/offices/lead](http://www.hud.gov/offices/lead).

You may address one or more of the research topic areas within your proposal, or submit separate applications for different topic areas. Projects need not address all of the objectives within a given topic area.

#### IV. Program Requirements.

(A) *Applicable Requirements.* Please refer to Section II of the General Section of the SuperNOFA, Requirements and Procedures Applicable to All Programs. The threshold requirements are listed in Section II.B of the General Section of this SuperNOFA.

(B) *Certifications and Assurances.* In addition to the certifications mentioned in the Section II(G) of the General Section of the SuperNOFA, you must comply with the following:

(1) All relevant State and Federal regulations regarding exposure to and proper disposal of hazardous materials.

(2) Any blood lead testing, blood lead level test results, and medical referral and follow-up for children under six years of age will be conducted according to the recommendations of the Centers for Disease Control and Prevention (CDC) *Preventing Lead Poisoning in Young Children*, (See Appendix B of this research program section of the SuperNOFA).

(3) HUD research grant funds will not replace existing resources dedicated to any ongoing project.

(4) Laboratory analysis covered by the National Lead Laboratory Accreditation Program (NLLAP) will be conducted by a laboratory recognized under the program.

(5) Human research subjects will be protected from research risks in conformance with Federal Policy for the Protection of Human Subjects, codified by HUD at 24 CFR part 60.

(6) The requirements of OSHA (e.g., 29 CFR part 1910 and/or 1926, as applicable), or the State or local occupational safety and health regulations, whichever are most stringent, will be met.

(C) *Period of Performance.* The period of performance cannot exceed 36 months from the time of award.

#### V. Application Selection Process

(A) *Submitting Applications for Grants.* Applications that meet all of the threshold requirements will be eligible to be scored and ranked, based on the total number of points allocated for each of the rating factors described below in Section V(B) of this program section of the SuperNOFA. Your application must receive a total score of at least 65 points to remain in consideration for funding.

Awards will be made in rank order, within the limits of funding availability.

You may address more than one of the research topic areas within your proposal, or submit separate applications for different topic areas. Projects need not address all of the objectives within a given topic area. While you will not be penalized for not addressing all of the specific objectives for a given topic area, if two applications for research in a given topic have equal scores, HUD will select the applicant whose project addresses the most objectives.

You are encouraged to plan projects that can be completed over a short time period (e.g., 12 to 24 months from the date of award) so useful information generated from the research can be available for policy or program

decisions and disseminated to the public as quickly as possible.

Regarding the amount to be awarded to the selected applicants, please refer to the Negotiations section in the General Section of this SuperNOFA.

(1) *Use of Residual Funds.* In the selection process, HUD reserves the right to offer partial funding to any or all applicants. If you are offered a reduced grant amount, you will have a maximum of seven (7) calendar days to accept such a reduced award. If you fail to respond within the seven day limit, you shall be considered to have declined the award.

(B) *Rating Factors.* The factors for rating and ranking applicants, and maximum points for each factor, are provided below. The maximum number of points to be awarded is 100. The EZ/EC bonus points described in the General Section of the SuperNOFA do not apply to this Research NOFA.

**Rating Factor 1: Capacity of the Applicant and Relevant Organizational Experience (20 Points)**

This factor addresses the extent to which you have the ability and organizational resources necessary to successfully implement your proposed activities in a timely manner. The rating of you, the "applicant," will include any sub-grantees, consultants, sub-recipients, and members of consortia that are firmly committed to the project (generally, "subordinate organizations"). In rating this factor HUD will consider the extent to which your application demonstrates:

(1) *The capability and qualifications of the principal investigator and key personnel* (10 points). Qualifications to carry out the proposed study as evidenced by academic background, relevant publications, and recent (within the past 10 years) relevant research experience. Publications and research experience are considered relevant if they required the acquisition and use of knowledge and skills that can be applied in the planning and execution of the research that is proposed under this program section of this SuperNOFA.

(2) *Past performance of the research team in managing similar research* (10 points). Demonstrated ability to successfully manage various aspects of a complex research study in such areas as logistics, research personnel management, data management, quality control, community research involvement (if applicable), and report writing, as well as overall success in project completion (i.e., research completed on time and within budget). You should also demonstrate that your

project would have adequate administrative support, including clerical and specialized support in areas such as accounting and equipment maintenance.

**Rating Factor 2: Need/Extent of the Problem (15 Points)**

This factor addresses the extent to which there is a need for your proposed program activities to address documented problems, target areas or target groups. In responding to this factor, you should document in detail how your research would make a significant contribution towards achieving some or all of HUD's stated goals and objectives for one or more of the topic areas described in Sections III (A) and (C)(2)(a)-(c) of this program section of the SuperNOFA.

(1) Your rating will be based on the scope and completeness of your documentation which should include available data linking housing-based hazards to disease or injuries to children. Examples of data that might be used to demonstrate need include:

(a) Rates of childhood illnesses or injuries (e.g., asthma, burns) that could be caused or exacerbated by exposure to conditions in the home environment and/or rates of environmentally-related disease or adverse health effects (e.g., hypertension, elevated blood lead levels) that would be addressed by your research;

(b) Unavailability of other Federal, State or local funding or private sector resources that could be, or is used, to address the problem. This includes current research projects for which funding will be terminated or significantly reduced in the next 12 months.

(c) Data documenting affected groups or areas that are traditionally underserved or have special needs.

(2) If your application addresses needs that are in the Consolidated Plan, Analysis of Impediments to Fair Housing Choice (AI), court orders or consent decrees, settlements, conciliation agreements, and voluntary compliance agreements, you will receive more points than applicants that do not relate their program to identified need.

(3) In addition, if you are seeking funding for "other" research, as is described in section III(C)(2)(c), you must document the importance and need for the research with respect to addressing the overall goal of this research program, and providing measurable positive impact on children's health.

**Rating Factor 3: Soundness of Approach (45 Points)**

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

(1) *Soundness of the study design* (25 points). The project description/study design must be thorough and feasible, and reflect your knowledge of the relevant scientific literature. You should include a plan for analyzing and archiving data. You should approach your study design as a project with a goal, some activities with associated tasks, a time frame, and an associated cost.

(2) *Quality assurance mechanisms* (8 points). You must describe the quality assurance mechanisms which will be integrated into your research design to ensure the validity and quality of the results. Areas to be addressed include acceptance criteria for data quality, procedures for selection of samples/sample sites, sample handling, measurement and analysis, and any standard/nonstandard quality assurance/control procedures to be followed. Documents (e.g., government reports, peer-reviewed academic literature) which provide the basis for your quality assurance mechanisms should be cited.

(3) *Project management plan* (5 points). The proposal should include a management plan that provides a schedule for the completion of major activities, tasks and deliverables, with an indication that there will be adequate resources (e.g., personnel, financial) to successfully meet the proposed schedule. Projects with a duration of 24 months or less will be awarded more points in this category than projects with a longer duration.

(4) *Project Evaluation* (5 points). You are required to identify and discuss the specific methods you will use to measure progress towards your goals, track and report results of your research, and evaluate the effectiveness of your project:

(i) Discuss the performance goals for your project and identify specific outcome measures;

(ii) Describe how the outcome information will be obtained, documented, and reported; and

(iii) Identify the major milestones for your project, and describe how your progress towards these milestones will be tracked, recorded and reported.

(5) *Budget Proposal* (2 Points). Your budget proposal should thoroughly estimate all applicable direct and indirect costs, and be presented in a clear and coherent format in accordance with the requirements listed in the

General Section of this SuperNOFA. HUD is not required to approve or fund all proposed activities. Your budget should be submitted in the format recommended; an electronic spreadsheet is available on HUD's website, [www.hud.gov/offices/lead](http://www.hud.gov/offices/lead). You must thoroughly document and justify all budget categories and costs (Part B of Standard Form 424A) and all major tasks, for yourself, sub-recipients, partners, major subcontractors, joint venture participants, or others contributing resources to the project. Your budget proposal should be activity and task related.

**Rating Factor 4: Leveraging Resources (10 Points)**

Your proposal should demonstrate that the effectiveness of the HUD research grant funds are being increased by securing other public and/or private resources or by structuring the research in a cost-effective manner, such as integrating the project into an existing research effort. Resources may include funding or in-kind contributions (such as services, facilities or equipment) allocated to the purpose(s) of your research. Staff and in-kind contributions should be given a monetary value.

You should provide evidence of leveraging/partnerships by attaching to your application the following: letters of firm commitment, memoranda of understanding, or agreements to participate from those entities identified as partners in the research efforts. Each letter of commitment, memorandum of understanding, or agreement to participate should include the organization's name, proposed level of commitment (with monetary value) and responsibilities as they relate to specific activities or tasks of your proposed program. The commitment must also be signed by an official of the organization legally able to make commitments on behalf of the organization.

**Rating Factor 5: Comprehensiveness and Coordination (10 Points)**

You should describe how the results of your proposed research efforts will support planning, policy development, implementation of healthy homes programs, and/or public education in the area of residential EHS hazard control or in accordance with the goals and operations of the Partnership for Advancing Technology in Housing (PATH) (refer to Section VI(E) of the General Section of the SuperNOFA). If your application involves a particular community, it should relate to the community's Consolidated Plan and Analysis Impediments to Fair Housing Choice. In addition, you should also

address the extent to which your research could be used to expand fair housing choice and to affirmatively further fair housing.

**VI. Application Submission Requirements**

(A) *Applicant Data.* Your application must contain the items listed in this Section (VI(A)). These items include the standard forms, certifications, and assurances listed in the General Section of the SuperNOFA that are applicable to this funding (collectively, referred to as the "standard forms"). The standard forms can be found in Appendix B to the General Section of the SuperNOFA. The remaining application items that are forms (i.e., excluding such items as narratives), referred to as the non-standard forms can be found as Appendix D to this program section of the SuperNOFA: The items are as follows:

(1) Transmittal Letter that identifies what the research program funds are requested for, the dollar amount requested, and the applicant or applicants submitting the application. If two or more organizations are working together on the research, a primary applicant must be designated.

(2) Checklist and Submission Table of Contents (see Appendix D).

(3) The name, mailing address, telephone number, and principal contact person of the prime applicant. If you have consortium associates, sub-grantees, partners, major subcontractors, joint venture participants, or others contributing resources to your project, similar information must be provided for each of these entities.

(4) Completed Forms HUD-2880, Applicant/Recipient Disclosure/Update Report; Certification Regarding Lobbying; and/or SF-LLL, Disclosure of Lobbying Activities, where applicable.

(5) Completed Standard Forms SF-424, 424M, 424A, 424B, and other certifications and assurances listed in the General Section of the SuperNOFA and in Section VII(B) of this program section of the SuperNOFA.

(6) A detailed total budget with supporting cost justification for all budget categories of the Federal grant request. Use the budget format discussed in Section V(B) Rating Factor 3:5, above. (See Appendix D.)

(7) A two-page (maximum) abstract containing the following information: The project title, the names and affiliations of all investigators, and a summary of the objectives, expected results, and study design described in the proposal.

(8) A project description/narrative statement addressing the rating factors

for award of funding under this program section of the SuperNOFA. The narrative statement must be numbered in accordance with each factor for award (Rating Factors 1 through 5). The response to the rating factors should not exceed a total of 25 pages for each research topic area. Any pages in excess of this limit will not be read.

(9) Any important attachments, appendices, references, or other relevant information may accompany the project description, but must not exceed twenty (20) pages for the entire application. Any pages in excess of this limit will not be read.

(10) The resumes of the principal investigator and other key personnel. Resumes shall not exceed three pages each, and are limited to information that is relevant in assessing the qualifications of key personnel to conduct and/or manage the proposed research.

**VII. Corrections to Deficient Applications**

The General Section of the SuperNOFA provides the procedures for corrections to deficient applications.

**VIII. Environmental Requirements**

In accordance with 24 CFR 50.19(b)(1) and (5) of the HUD regulations, activities assisted under this program are categorically excluded 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 laws and authorities.

**IX. Authority**

These grants are authorized under sections 1051 and 1052 of the Residential Lead Based Paint Hazard Reduction Act of 1992, which is Title X of the Housing and Community Development Act of 1992, sections 501 and 502 of the Housing and Urban Development Act of 1970, and the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001, Public Law 106-377, approved October 27, 2000.

**Appendix A**

The following briefly describes the housing-associated health and injury hazards HUD considers key targets for intervention:

*Allergens and asthma:* Experts estimate that 14 million Americans have asthma, with an associated annual cost of \$14 billion. Asthma is now recognized as the leading cause of school and work absence, emergency room visits and hospitalization. For

sensitized children, exposure to antigens from dust mites, certain pets, and cockroaches has been associated with more severe asthma. There is a preponderance of evidence showing a dose-response relationship between exposure and prevalence of asthma and allergies; some evidence also indicates that exposure to antigens early in life may predispose or hasten the onset of allergies and asthma. Dust mites have been identified as the largest trigger for asthma and allergies. Cockroach allergens appear to be excessive in 30–50% of inner-city housing and affect 5–15% of the population, whereas dust mite appears to be the dominant allergen in other environments.

Interventions known to have beneficial effects include installation of impervious mattress and pillow covers, which can reduce allergen exposure by 90%. Other dust mite control measures include dehumidification, laundering bedding, and removal of carpets and other dust sinks. Cleaning carpets with tannic acid solution has also been demonstrated to greatly reduce dust mites. Asthma prevention program costs have been estimated at about \$500 per unit, which includes about \$150 for educational interventions.

*Asbestos:* Asbestos is a mineral fiber that has been used commonly in a variety of building construction materials and household products for insulation and as a fire-retardant. The Environmental Protection Agency (EPA) and the Consumer Product Safety Commission (CPSC) have banned most asbestos products. Manufacturers have also voluntarily limited uses of asbestos. Today, asbestos is most commonly found in older homes: in pipe and furnace insulation materials, asbestos shingles, millboard, textured paints and other coating materials, and floor tiles. Elevated concentrations of airborne asbestos can occur when asbestos-containing materials (ACM) are disturbed by cutting, sanding or other remodeling activities. Improper attempts to remove these materials can release asbestos fibers into the air in homes, increasing asbestos levels and endangering people living in those homes. The most dangerous asbestos fibers are too small to be visible. After they are inhaled, they can remain and accumulate in the lungs. Asbestos can cause lung cancer, mesothelioma (a cancer of the chest and abdominal linings), and asbestosis (irreversible lung scarring that can be fatal). Most people with asbestos-related diseases were exposed to elevated concentrations on the job; some developed disease from exposure to clothing and equipment brought

home from job sites. As with radon, dose-response extrapolations suggest that lower level exposures, as may occur when asbestos-containing building materials deteriorate or are disturbed, may also cause cancer.

Intact asbestos-containing materials are not a hazard; they should be monitored for damage or deterioration and isolated if possible. Repair of damaged or deteriorating ACM usually involves either sealing (encapsulation) or covering (enclosure) it. Repair is usually cheaper than removal, but it may make later removal of asbestos more difficult and costly. Repairs should be done only by a professional trained and certified to handle asbestos safely and can cost from a few hundred to a few thousand dollars; removal can be more expensive.

*Combustion products of heating and cooking appliances:* Burning of oil, natural gas, kerosene, and wood for heating or cooking purposes can release a variety of combustion products of health concern. Depending upon the fuel, these may include carbon monoxide (a chemical asphyxiant), oxides of nitrogen (respiratory irritants), polycyclic aromatic hydrocarbons (e.g., the carcinogen benzo[a]pyrene), and airborne particulate matter (respiratory irritants). Carbon monoxide, an odorless gas, can be fatal. Nitrogen dioxide can damage the respiratory tract, and sulfur dioxide can irritate the eyes, nose and respiratory tract. Smoke and other particulates irritate the eyes, nose and throat, and can cause lung cancer.

Improper venting and poor maintenance of heating systems and cooking appliances can dramatically increase exposure to combustion products. Experts recommend having combustion heating systems inspected by a trained professional every year to identify blocked openings to flues and chimneys; cracked or disconnected flue pipe; dirty filters; rust or cracks in the heat exchanger; soot or creosote build-up; and exhaust or gas odors. Installing a carbon monoxide detector is also recommended; however, such a detector will not detect other combustion by-products.

*Insect and rodent pests:* The observed association between exposure to cockroach antigen and asthma severity has already been noted above. In addition, cockroaches may act as vehicles to contaminate environmental surfaces with certain pathogenic organisms. Rodents can transmit a number of communicable diseases to humans, either through bites, arthropod vectors, or exposure to aerosolized excreta. In addition, humans can become sensitized to proteins in rodent

urine, dander and saliva. Such sensitization may contribute to asthma severity among children. Insect and rodent infestation is frequently associated with substandard housing that makes it difficult to eliminate. Treatment of rodent and insect infestations often includes the use of toxic pesticides which may present hazards to occupants (see below). Integrated pest management (IPM) for rodents and cockroaches, which reduces the use of pesticides, is estimated to cost approximately \$150 per unit. IPM control measures include sealing holes and cracks, removing food sources and use of traps.

*Lead:* Exposure to lead, especially from deteriorating lead-based paint, remains one of the most important and best-studied of the household environmental hazards to children. Although blood lead levels have fallen nationally, a large reservoir of lead remains in housing. The most recent national survey, conducted from 1991–94, showed that nearly one million U.S. preschoolers still have elevated blood lead levels. Overall, the prevalence rate among all children under six years of age is 4.4%. Among low-income children living in older housing where lead-based paint is most prevalent, the rate climbs to 16%; and for African-American children living in such housing, it reaches 21%.

HUD estimates that 64 million dwellings have some lead-based paint, and that 20 million have lead-based paint hazards. Of those, about 3.6 million have young children and of those, about 500,000 units have inadequate cash flow to respond to lead-based paint hazards. Costs can range anywhere from \$500 to \$15,000 per unit. Corrective measures include paint stabilization, enclosure and removal of certain building components coated with lead paint, and cleanup and “clearance testing”, which ensures the unit is safe for young children.

*Mold and moisture:* An analysis of several pulmonary disease studies estimates that 25% of airways disease, and 60% of interstitial lung disease may be associated with moisture in the home or work environment. Moisture is a precursor to the growth of mold and other biological agents, which is also associated with respiratory symptoms. An investigation of a cluster of pulmonary hemosiderosis (PH) cases in infants showed PH was associated with a history of recent water damage to homes and with levels of the mold *Stachybotrys atra* (SA) in air and in cultured surface samples. Associations between exposure to SA and “sick building” symptoms in adults have also been observed. Other related toxicogen

fungi have been found in association with SA-associated illness and could play a role. For sensitive individuals, exposure to a wide variety of common molds may also aggravate asthma. Addressing mold problems in housing requires coordination among the medical, public health, microbiological, housing, and building science communities.

The cost of mold/moisture-related intervention work (e.g., integrated pest management, clean and tune furnace, remove debris, vent clothes dryer, cover dirt floor with impermeable vapor barrier) is a few hundred dollars, unless major modification of the ventilation system is needed. In Cleveland, mold interventions, including repairs to ventilation systems and basement flooring, in the most heavily-contaminated homes range from \$500–\$5,000, with some costs also being dedicated to lead hazard control simultaneously through its lead+asthma program.

**Pesticide residues:** According to the EPA, 75 percent of U.S. households used at least one pesticide product indoors during the past year. Products used most often are insecticides and disinfectants. Another study suggests 80 percent of most people's exposure to pesticides occurs indoors and that measurable levels of up to a dozen pesticides have been found in the air inside homes. The amount of pesticides found in homes appears to be greater than can be explained by recent pesticide use in those households; other possible sources include contaminated soil or dust that migrates in from outside, stored pesticide containers, and household surfaces that collect and then release the pesticides. Pesticides used in and around the home include products to control insects (insecticides), termites (termiticides), rodents (rodenticides), molds and fungi (fungicides), and microbes (disinfectants). In 1990, the American Association of Poison Control Centers reported that some 79,000 children were involved in common household pesticide poisonings or exposures. In households with children under five years old, almost one-half stored at least one pesticide product within reach of children. Exposure to chlorpyrifos (CP), a commonly used organophosphate insecticide, in the prenatal and early postnatal period may impair neurodevelopment. While CP is a biodegradable pesticide, substantial persistence of CP in house dust has been demonstrated. Exposure to high levels of cyclodiene pesticides, commonly associated with misapplication, has produced various symptoms, including headaches, dizziness, muscle twitching, weakness, tingling sensations, and nausea. In addition, EPA is concerned that cyclodienes might cause long-term damage to the liver and the central

nervous system, as well as an increased risk of cancer.

There are available data on hazard evaluation methods and remediation effectiveness regarding pesticide residues in the home environment.

**Radon progeny:** The National Academy of Sciences estimates that approximately 15,000 cases of lung cancer per year are related to radon exposure. Epidemiologic studies of miners exposed to high levels of radon in inhaled air have defined the dose response relation for radon-induced lung cancer at high exposure levels. Extrapolation of these data has been used to estimate the excess risk of lung cancer attributable to exposure to radon gas at the lower levels found in homes. These estimates indicate that radon gas is an important cause of lung cancer deaths in the U.S. Excessive exposures are typically related to home ventilation, structural integrity and location.

Radon measurement and remediation methods are well-developed, and the Environmental Protection Agency (EPA) recommends that every home be measured for radon. EPA estimates that materials and labor costs for radon reduction in an existing home are \$800–\$2500. Including radon resistant techniques in new home construction costs \$350–\$500, and can save up to \$65 annually in energy costs, according to the EPA.

**Take home hazards from work/hobbies and work at home:** When the clothing, hair, skin, or shoes of workers become contaminated with hazardous materials in the workplace, such contaminants may inadvertently be carried to the home environment and/or an automobile. Such "take-home" exposures have been demonstrated, for example, in homes of lead-exposed workers. In addition, certain hobbies or workplaces located in the home may provide an especially great risk of household contamination.

Control methods include storing and laundering work clothes separately, and showering and changing before leaving work, or immediately after arriving home. Once a home becomes contaminated, cleaning floors and contact surfaces and replacing furnishings may be necessary to reduce exposures.

**Unintentional injuries/fire:** Unintentional injury is now the leading cause of death and disability among children younger than 15 years of age. In 1997, nearly 7 million persons in the United States were disabled for at least 1 full day by unintentional injuries received at home. During the same year, 28,400 deaths were attributable to unintentional home injuries, of which 1800 occurred among children 0–4 years of age. Among young children, three types of events accounted for more than ¾ of deaths: fires/

burns, drownings, and mechanical suffocation. Falls and poisoning are the next most common.

Home visitation protocols have been shown to be effective in reducing exposure to such hazards. The "add-on" cost of injury prevention measures, when combined with other housing interventions are estimated at about \$100 per unit. This includes the cost of some injury prevention devices, such as smoke alarms, electrical socket covers, etc.

## Appendix B—Relevant Publications and Guidelines

To secure any of the documents listed, call the listed telephone number (generally, the telephone numbers are not toll-free).

**Regulations:** 1. Worker Protection: OSHA publication—Telephone: 202–693–1888 (OSHA Regulations) (available for a charge)—Government Printing Office—Telephone: 202–512–1800 (not a toll-free number):

—General Industry Lead Standard, 29 CFR 1910.1025 (Document Number 869022001124). Can be downloaded from the Internet without charge from [www.osha-slc.gov/OshStd\\_data/1910\\_1025.html](http://www.osha-slc.gov/OshStd_data/1910_1025.html).

—Lead Exposure in Construction, 29 CFR 1926.62, and appendices A, B, C, and D (Document Number 869022001141). Can be downloaded from the Internet without charge from [www.osha-slc.gov/OshStd\\_data/1926\\_0062.html](http://www.osha-slc.gov/OshStd_data/1926_0062.html).

2. Waste Disposal: 40 CFR parts 260–268 (EPA regulations) (available for a charge)—Telephone 1–800–424–9346, or, from the Washington, DC, metropolitan area, 1–703–412–9810 (not a toll-free number). Can be downloaded from the Internet without charge from [www.epa.gov/docs/epacfr40/chapt-I.info/subch-I/](http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-I/).

3. Lead; Requirements for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities; Final Rule: 40 CFR part 745 (EPA) (Lead Hazard Standards, Work Practice Standards, EPA and State Certification and Accreditation Programs for those engaged in lead-based paint activities)—Telephone: 1–202–554–1404 (Toxic Substances Control Act Hotline) (not a toll-free number). Can be downloaded from the Internet without charge from [www.epa.gov/opptintr/lead/index.html](http://www.epa.gov/opptintr/lead/index.html).

4. Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance; Final Rule: 24 CFR part 35, subparts A through R, published September 15, 1999, at **Federal Register** pages 50201 through 50231 (HUD)—Telephone: 1–800–424–LEAD (National Lead

Information Center). Can be downloaded from the Internet without charge from [www.hud.gov/lea/leadwnlo.html](http://www.hud.gov/lea/leadwnlo.html) or [www.epa.gov/lead/leadbase.htm](http://www.epa.gov/lead/leadbase.htm).

5. U.S. Environmental Protection Agency. Lead; Identification of Dangerous Levels of Lead; Final Rule at 66 FR 1205–1240, January 5, 2001. TSCA Hotline: 202–554–1404 (not a toll-free number). Can be downloaded from the Internet without charge from [www.epa.gov/lead/leadhaz.htm](http://www.epa.gov/lead/leadhaz.htm).

*Guidelines:* 1. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing; HUD, June 1995, and amended September, 1997. (Available for a charge)—Telephone: 800–245–2691. Can be downloaded from the Internet without charge from [www.hud.gov/lea/leadwnlo.html](http://www.hud.gov/lea/leadwnlo.html).

2. Preventing Lead Poisoning in Young Children; Centers for Disease Control, October 1991; Telephone: 888–232–6789.

3. Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials, November 1997; Centers for Disease Control and Prevention (CDC); Telephone: 888–232–6789. Can be downloaded from the Internet without charge from [www.hud.gov/lea/leadwnlo.html](http://www.hud.gov/lea/leadwnlo.html).

*Reports and Articles:* 1. Putting the Pieces Together: Controlling Lead Hazards in the Nation's Housing, (Summary and Full Report); HUD, July 1995 (available for a charge)—Telephone 800–245–2691. Can be downloaded from the Internet without charge from [www.hud.gov/lea/leadwnlo.html](http://www.hud.gov/lea/leadwnlo.html).

2. The Healthy Homes Initiative: A Preliminary Plan (Summary and Full Report); HUD, July 1995. Can be downloaded from the Internet without charge from [www.hud.gov/lea/leadwnlo.html](http://www.hud.gov/lea/leadwnlo.html).

3. Institute of Medicine. Indoor Allergens. Assessing and Controlling Adverse Health

Effects. National Academy Press. Washington, D.C. 1993.

4. Mott L., Our Children at Risk. Natural Resources Defense Council. Washington, D.C. 1997. Can be ordered from the Internet from [www.nrdc.org](http://www.nrdc.org)

5. Rom W.N., Ed. Environmental and Occupational Medicine. Little, Brown and Co., Boston. 1992.

6. President's Task Force on Environmental Health Risks and Safety Risks to Children. Asthma and The Environment: An Action Plan to Protect Children. Washington, D.C. 1999. Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Paint Hazards. Washington, D.C., 2000. Can be downloaded from the Internet without charge from [www.epa.gov/children](http://www.epa.gov/children).

**BILLING CODE 4210–32–P**

**APPENDIX C + Healthy Homes and Lead-Related Research**

**Examples of Healthy Homes Research**

No.	Title	Description
1	Urban Mold and Moisture	Provide data on the environmental impact on homes and on the health of children associated with mold and moisture control (research component of demonstration project)
2	Mold and Moisture in Inner City Housing	Demonstrate and evaluate the efficacy of low cost moisture control services through environmental, biological and medical monitoring (research component of demonstration project)
3	Bedford-Stuyvesant Healthy Homes Initiative	Demonstrate and evaluate the efficacy of low cost hazard remediation by tenants and owners in addressing four types of home environmental hazards (lead paint and dust, allergens, mold and accidental injury) (research component of demonstration project)
4	Boston Healthy Homes Partnership	Compare the efficacy of "enhanced" vs. "standard" intervention packages in reducing asthma exacerbation (research component of demonstration project)
5	Long Beach Healthy Home Initiative	Compare the efficacy of healthy homes interventions vs. standard environmental health services provided by a health department conducting a lead hazard control program (research component of demonstration project)
6	Improving the Lead Dust Final Clean Protocol to Reduce Cockroach Allergen Exposure	Determine effectiveness of modified cleaning protocols in reducing household contamination by cockroach allergen; evaluate polyclonal detection assay for cockroach allergens
7	Healthy Public Housing	Document EHS hazards affecting public housing residents; evaluate remedial measures and quantify economic benefits of interventions
8	Head Start Healthy Homes Initiative	Evaluate home visitation to Head Start families as a means of reducing health risks for asthma, lead poisoning and injury.

## Examples of Healthy Homes-Related Lead Research

No.	Title	Description
1	Sampling Lead Dust in Carpets and Upholstery	To compare the performance of 5 different methods (handwash, vacuum, wipe, adhesive label, and a "membrane" sampler) of sampling dust-lead from carpets and upholstery in homes of lead poisoned children.
2	Lead Hazard Assessment of Carpets	Examine transfer of particles from carpet to hands (conditioned and field samples), distribution of dust and lead within carpet pile, and potential exposure to particulate in "particle cloud" created when walking on carpet.
3	Lead Hazard of Upholstery	The primary objective is to assess the potential for exposure to dust-lead from upholstery (conditioned samples and field samples).
4	Lead Hazard Assessment of Residential Air Ducts Emissions	Laboratory phase will measure lead particle emissions from a simulated household ventilation duct system under varying conditions (air velocity, humidity, etc.).
5	Efficacy of Household Vacuums and a Nonphosphate Detergent in Reducing Lead Dust on Floors	Conduct lab testing of household vacuums to select 3 moderately priced vacuums for use in the field component of the study. Compare the performance of the household vacuums with a HEPA vacuum in cleaning lead-contaminated dust. Identify parameters predictive of performance.
6	Factors Affecting the Retention of Leaded Dust in Carpets	The research will identify major factors (e.g., pile height, fiber density, fiber coating) which affect the extent to which carpets can be cleaned of leaded dust in the laboratory and field.
7	Penetration of Particulate Through Vacuum Bags	Develop a method for laboratory testing of commonly available vacuum cleaner bags to determine their efficiency in trapping fine dust.
8	Cleaning Lead Contaminated Dust from Hard Surfaces	The purpose of this research is to determine the effectiveness of various detergents in cleaning lead-contaminated dust from hard surfaces under varying conditions of wear and dust loading.
9	Monitoring HEPA Vacuum Dust Pick-up with an Aerosol Photometer	The objective of this research is develop a dynamic reading instrument that will indicate when a surface is sufficiently "clean".

## APPENDIX D

The non-standard forms, which follow, are required for your Healthy Homes Research application. They are the Checklist and Submission Table of Contents and the Total Budget (Federal Share and Matching Contribution, including instructions).

## CHECKLIST AND SUBMISSION TABLE OF CONTENTS

### HEALTHY HOMES RESEARCH NOFA

The following checklist is provided to ensure that you have submitted all of the required items in order for you to receive consideration for funding under this NOFA. Applicants must check off each item that they have included in their submission package and note the corresponding page number where the response is located. Applicants are to include this Checklist and Submission Table of Contents with the proposal. Application pages must be consecutively numbered.

<u>Check Off</u>	<u>Page Number</u>
<input type="checkbox"/> Transmittal Letter	Cover page
<input type="checkbox"/> Checklist And Submission Table Of Contents (this form)	p. ____
<input type="checkbox"/> Project Abstract (limited to 2 pages)	p. ____
 <b>Application Forms</b>	
<input type="checkbox"/> Standard Form 424 (Application for Federal Assistance)	p. ____
<input type="checkbox"/> Standard Form 424M (Federal Assistance Funding Matrix)	p. ____
<input type="checkbox"/> Standard Form 424A (Budget Information/ Non-Construction Programs)	p. ____
<input type="checkbox"/> Total Budget (Federal Share and Matching) (Budget sheets provided for applicant and each major subgrantees/subcontractor.)	p. ____
<input type="checkbox"/> HUD 2880 Disclosure and Update Report	p. ____
<input type="checkbox"/> HUD 50070 Drug-Free Workplace Certification	p. ____
<input type="checkbox"/> HUD 50071 Certification of Payments to Influence Federal Transactions	p. ____
<input type="checkbox"/> Form SF-LLL Disclosure of Lobbying Activities Required	p. ____
<input type="checkbox"/> Form SF-LLL not required.	
<input type="checkbox"/> HUD 2992 Certification of Status Regarding Debarred Applicants	p. ____
<input type="checkbox"/> Standard Form 424B (Assurances/Non-Construction Programs)	p. ____
 <b>Response to Rating Factors/Project Description (limited to 25 pages)</b>	
<input type="checkbox"/> 1. Capacity of the Applicant and Relevant Organizational Experience	p. ____
<input type="checkbox"/> 2. Needs/Extent of the Problem	p. ____
<input type="checkbox"/> 3. Soundness of Approach	p. ____
<input type="checkbox"/> 4. Leveraging/Partnerships	p. ____
<input type="checkbox"/> 5. Comprehensiveness and Coordination	p. ____
 <b>Appendices (if applicable)</b>	
<input type="checkbox"/> Appendix 1 - Material in support of Rating Factors 1 through 5 (Limited to 20 pages.)	p. ____
<input type="checkbox"/> Appendix 2 - Materials relating to the forms	p. ____
<input type="checkbox"/> Appendix 3 -Other materials related to the application	p. ____
<input type="checkbox"/> HUD 2993 Acknowledgment of Application Receipt	p. ____



Spreadsheet version available from www.hud.gov/lea/eaforms.html

**Budget Summary**

**Total Budget (Federal Share and Matching)**

<b>Detailed Description of Budget</b>					
<b>3c. Transportation - Other</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Subtotal - Transportation - Other</b>					
<b>3d. Per Diem or Subsistence (indicate location)</b>	<b>Days</b>	<b>Rate per Day</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Subtotal - Per Diem or Subsistence</b>					
<b>Total Travel Cost</b>					
<b>4. Equipment (Only items over \$5,000 each)</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Total Equipment Cost</b>					
<b>5. Supplies and Materials (Items under \$5,000)</b>					
<b>5a. Consumable Supplies</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Subtotal - Consumable Supplies</b>					
<b>5b. Non-Consumable Materials</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Estimated Cost</b>	<b>Federal Share</b>	<b>Match</b>
<b>Subtotal - Non-Consumable Materials</b>					
<b>Total Supplies and Materials Cost</b>					



Spreadsheet version available from [www.hud.gov/lea/leaforms.html](http://www.hud.gov/lea/leaforms.html)

<b>Analysis of Total Estimated Costs</b>	<b>Estimated Cost</b>	<b>Percent of Total</b>	<b>Percent of Labor</b>
<b>1 Personnel (Direct Labor)</b>			
<b>2 Fringe Benefits</b>			
<b>3 Travel</b>			
<b>4 Equipment</b>			
<b>5 Supplies and Materials</b>			
<b>6 Consultants</b>			
<b>7 Contracts and Sub-Grantees</b>			
<b>8 Other Direct Costs</b>			
<b>9 Indirect Costs</b>			
<b>Total</b>			

**Federal Share Match**

**Expressed as a percentage of the Federal Share**

Some cells in this spreadsheet are protected. There is no password for this spreadsheet.

## Instructions for Completing the Budget Summary Spreadsheet

Note: an electronic version of this spreadsheet may be obtained from the HUD Office of Healthy Homes and Lead Hazard Control website at [www.hud.gov/lea/leaforms.html](http://www.hud.gov/lea/leaforms.html)

Item	Discussion
1 - Personnel (Direct Labor)	<p>This section should show the labor costs for all individuals supporting the grant effort (regardless of the source of their salaries). The hours and costs are for the full life of the grant. If an individual is employed by a contractor or sub-grantee, their labor costs should not be shown here.</p> <p>Please include all labor costs which are associated with the proposed grant program, including those costs which will be paid for with in-kind or matching funds.</p> <p>Do not show fringe or other indirect costs in this section.</p> <p>Please use the hourly labor cost for salaried employees (use 2080 hours per year or the value your organization uses to perform this calculation). An employee working less than full time on the grant should show the numbers of hours they will work on the grant.</p>
2 - Fringe Benefits	<p>Use the standard fringe rates used by your organization. You may use a single fringe rate (a percentage of the total direct labor) or list each of the individual fringe charges. The spreadsheet is set up to use the Total Direct Labor Cost as the base for the fringe calculation. If your organization calculates fringe benefits differently, please use a different base and discuss how you calculate fringe as a comment.</p>
3 - Travel	
3a - Transportation - Local Private Vehicle	<p>If you plan on reimbursing staff for the use of privately owned vehicles or if you are required to reimburse your organization for mileage charges, show your mileage and cost estimates in this section.</p>
3b - Transportation - Airfare	<p>Show the estimated cost of airfare required to support the grant program effort. Show the destination and the purpose of the travel as well as the estimated cost of the tickets.</p> <p>Each lead program NOFA discusses the travel requirements which should be listed here.</p>
3c - Transportation - Other	<p>If you or are charged monthly by your organization for a vehicle for use by the grant program, indicate those costs in this section.</p> <p>Provide estimates for other transportation costs which may be incurred (metro, etc.).</p>

3d - Per Diem or Subsistence	<p>For travel which will require the payment of subsistence or per diem in accordance with your organization's policies. Indicate the location of the travel.</p> <p>Each lead program NOFA discusses the travel requirements which should be listed here.</p>
4 - Equipment	<p>Equipment is defined by HUD regulations as tangible, nonexpendable, personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.</p> <p>Each lead program NOFA describes what equipment may be purchased using grant funding.</p>
5 - Supplies and Materials	<p>Supplies and materials are consumable and non-consumable items which have a unit value of less than \$5,000. Please list the proposed supplies and materials as either Consumable Supplies or as Non-Consumable Materials.</p>
5a - Consumable Supplies	<p>List the consumable supplies you propose to purchase. General office or other common supplies may be estimated using an anticipated consumption rate.</p>
5b - Non-consumable materials	<p>List furniture, computers, printers, and other items which will not be consumed in use. Please list the quantity and unit cost.</p>
6 - Consultants	<p>Please indicate the consultants you will use. Indicate the type of consultant (skills), the number of days you expect to use them, and their daily rate.</p>
7 - Contracts and Sub-Grantees	<p>List the contractors and sub-grantees which will help accomplish the grant effort. Other contracts which should be shown here include inspections, risk assessments, and clearance inspections; contracts with Community Based Organizations; liability insurance; contracts with laboratories; and training and certification for contractors and workers.</p> <p>If any contractor, sub-contractor, or sub-grantee is expected to receive over 10% of the total Federal amount requested, a separate Budget Summary spreadsheet should be developed for that contractor or sub-grantee and the total amount of their proposed effort should be shown as a single entry in this section.</p> <p>Unless your proposed program will perform the primary grant effort (lead hazard control, research, or healthy homes) with in-house employees (which should be listed in section 1), the costs of performing the primary grant activities (research, hazard control, etc.) should be shown in this section.</p> <p>Types of activities which should be shown in this section:</p> <ul style="list-style-type: none"> <li>• Contracts for all services</li> <li>• Training for individuals not on staff</li> <li>• Contracts with Community Based Organizations or Other Governmental Organizations (note the 10% requirement discussed above)</li> <li>• Insurance if your program will procure it separately</li> </ul>

	Please provide a short description of the activity the contractor or subgrantee will perform, if not evident.
8 - Other Direct Costs	<p>Other Direct Costs include a number of items that are not appropriate for other sections.</p> <p>Other Direct Costs may include:</p> <ul style="list-style-type: none"> <li>• Staff training</li> <li>• Telecommunications</li> <li>• Printing and postage</li> <li>• Relocation, if costs are paid directly by your organization (if relocation costs are paid by a subgrantee, it should be reflected in Section 7)</li> </ul>
9 - Indirect Costs	<p>OMB Circular A87 defines indirect costs are those that have been incurred for common or joint purposes. These costs benefit more than one cost objective and cannot be readily identified with a particular final cost objective without effort disproportionate to the results achieved. Indirect costs include (a) the indirect costs originating in each department or agency of the governmental unit carrying out Federal awards and (b) the costs of central governmental services distributed through the central service cost allocation plan and not otherwise treated as direct costs.</p> <p>The spreadsheet is set up to use the Total Direct Labor plus the Fringe Benefits costs as the base for the indirect cost calculation. If your organization calculates indirect costs differently, please use a different base and discuss how you calculate fringe as a comment.</p>

The three rightmost columns allow you to identify how the costs will be spread between the Federal Share and the Match. This information will help the reviewers better understand your program and priorities. The far right column is an "error checking" function to confirm that the estimated cost is equal to the sum of the Federal Share and the Match. If there is a discrepancy, the word "Error" will appear.

Note: The formats and many of the cells for the spreadsheet (which can be downloaded from the HUD Office of Healthy Homes and Lead Hazard Control website at [www.hud.gov/lea/fedshare.xls](http://www.hud.gov/lea/fedshare.xls)) are protected. There is no password for the protection.

