

(iii) Other areas of focus that are consistent with the overall goals of HUD's lead technical studies program.

(b) HBCU set-aside. As noted in the Program Overview, above, HBCUs are defined as those listed in 34 CFR 608.2 (see, for example, www.ed.gov/offices/ope/hep/idades/hbculist.html). The lead technical studies program includes a set-aside of \$2.25 million for HBCUs. This set-aside is established for HBCUs to expand their role and effectiveness in addressing community development needs, specifically for conducting technical studies focused on increasing the efficacy of LHC programs in low-income, minority communities, consistent with the purposes of title I of the Housing and Community Development Act of 1974 in addressing critical social, economic, and environmental problems facing Nation's urban communities (see 42 U.S.C. 5301). Low-income, minority children in these communities are at highest risk of suffering of exposure to lead-based paint hazards and subsequently developing lead poisoning (Morbidity and Mortality Weekly Report, 1997; Jacobs *et al.*, 2002). The Department is aware that HBCUs are often involved in projects that address problems such as lead poisoning, that disproportionately affect low-income, minority populations. The goal of this set aside is to encourage HBCUs to apply their unique perspective on community issues and the community relationships that they have established, to design and implement technical studies to increase the efficacy of LHC programs in their communities and in additional communities, in accordance with section 1011(g)(1) of Title X, which requires HUD to "develop the capacity of eligible applicants * * * to carry out activities under" LHC grant programs.

HBCU applications should understand that the ultimate goal of these LHC grant programs is to reduce the incidence of childhood lead poisoning by identifying and eliminating lead hazards in target, privately owned, housing (see FY 2003 NOFA for LHC grants). Important aspects of the HUD LHC grants include:

- (i) Working cooperatively with other governmental and community-based organizations;
- (ii) Identifying target housing and recruiting owners into the program;
- (iii) Identifying lead-based paint hazards and developing work specifications for contractors;
- (iv) Awarding contracts and ensuring that work is completed;
- (v) Conducting outreach and education to residents and the community; and

(vi) Promotion of job training, employment, and other economic opportunities for low-income and minority residents and businesses.

LHC grantees are encouraged to employ hazard control interventions that are effective in eliminating lead hazards while minimizing (*e.g.*, using interim controls instead of complete abatement) cost so that the largest number of housing units can be treated. HUD conducted an evaluation of the effectiveness of lead hazard interventions conducted by the initial recipients of the Department's lead-hazard control grants and these were found to be effective in reducing dust-lead levels (preliminary results were reported by Galke *et al.* 2001).

(B) Eligible Activities

(1) Healthy Homes Technical Studies.

(a) Evaluation of residential health and safety hazard assessment and control methodologies and approaches (including both existing methods and the evaluation of improved or novel approaches). Areas of particular interest to HUD include:

(i) Improving indoor air quality, such as through cost-effective approaches to upgrading residential ventilation or improving control/management of combustion appliances. Applicants should discuss how proposed approaches might affect residential energy costs (*e.g.*, increasing air exchange rates resulting in an increase in heating costs);

(ii) Improving or assessing the efficacy of current methods for residential Integrated Pest Management (IPM). IPM approaches focus on the use of economical means for managing pests, which incorporate information on the life cycles of pests and their interaction with the environment, while minimizing hazards to people, property, and the environment. HUD is particularly interested in IPM methods for reducing cockroach and/or rodent populations in multifamily housing;

(iii) Controlling excess moisture and dust control measures (*e.g.*, preventing track-in of exterior dust and soil, improved methods for interior dust cleaning) have been identified as key areas in the HHI Preliminary Plan;

(iv) Evaluate the effectiveness of education and outreach methods designed to provide at-risk families with the knowledge to adopt self-protective behaviors with respect to housing-related health hazards; and

(v) Additional ideas will be considered with an open mind toward novel techniques and applications.

(b) Analysis of existing data or generation of new data to improve

knowledge regarding the prevalence and severity of specific hazards in various classes of housing, with a focus on low-income housing. Specific examples include:

(i) The prevalence of carbon monoxide and other indoor air quality hazards;

(ii) The prevalence and patterns of moisture problems and biological contaminants associated with excess moisture (*e.g.*, fungi, bacteria, dust mites);

(iii) The prevalence of specific childhood injury hazards in housing; and

(iv) Improved understanding of the relationship between a residential exposure and childhood illness or injury.

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

(i) Establish and validate any necessary procedures (*e.g.*, such as extraction and/or digestion) that would work well with the field device/procedure;

(ii) Improve old technology (*e.g.*, colorimetric tests, titrimetric procedures) as well as examine and improve newer techniques; and

(iii) Consider the safety, environmental impacts, and cost of the procedure, particularly as used in the field.

(d) In proposing technical studies within the broad topic areas discussed in III.C.1(a) and III.C.1(b), applicants should consider:

(i) The "fit" of the proposed hazard assessment and/or control methods within the overall goal of addressing "priority" health and safety hazards in a cost-effective manner;

(ii) The efficacy of the proposed methods for hazard control and risk reduction (*e.g.*, how long is effective hazard reduction maintained?);

(iii) Consider where and how these methods would be applied and tested, and/or perform demonstration activities; and

(iv) The degree to which your study will help develop practical, widely applicable methods and protocols or improve our understanding of a residential health hazard.

Although HUD is soliciting proposals for technical studies on these broad topics, HUD will also consider funding applications for technical studies on topics that are relevant under the overall goals and objectives of this program, as described above. In such instances, the applicant should describe how the