COMPILED 12/15/08

PAR-06-485 including REVISIONS – 2/06/07; 2/28/08; 12/09/09

Part I Overview Information

Department of Health and Human Services

Participating Organizations

Centers for Disease Control and Prevention (CDC), (http://www.cdc.gov/)

Components of Participating Organizations

National Institute for Occupational Safety and Health (NIOSH), (http://www.cdc.gov/niosh/homepage.html)

Title: Occupational Safety and Health Education and Research Centers (T42)

Note: The policies, guidelines, terms, and conditions stated in this announcement may differ from those used by the NIH.

Announcement Type

Revision of PAR-05-107

Update: The following updates relating to this announcement have been issued:

- December 9, 2008 - See Notice (NOT-OH-09-004) - The purpose of this Notice is to provide clarification on the following: Section I. Funding Opportunity Description, 1. Program Objectives; Section IV. Application and Submission Information; Section V. Application Review Information.
- February 28, 2008 - See Notice (NOT-OH-08-005) - The purpose of this Notice is to provide clarification on the following: Key Dates; Section I. Funding Opportunity Description, 1. Program Objectives; Section IV. Application and Submission Information; Section VI. Award Administration Information.

- February 6, 2007 - See Notice (NOT-OH-07-002) - The purpose of this Notice is to provide clarification on the following: Key Dates, Section I. Funding Opportunity Description, 1. Program Objectives: Section IV. Application and Submission Information: Section V. Application Review Information.
- July 25, 2006 (NOT-OH-06-005) - Notice to announce that a conference call is scheduled to answer questions concerning this announcement. It will be held July 27, 2006 from 2:00-4:00 pm ET. Conference code: 866-796-1311; Passcode: 6430917.

Program Announcement (PA) Number: PAR-06-485

Catalog of Federal Domestic Assistance Number(s)

93.262

Key Dates

Release Date: July 12, 2006

Letters of Intent Receipt Date(s): Not applicable

Application Receipt Date(s): September 13, 2006; August 14, 2007; August 14, 2008; August 14, 2009

Peer Review Date(s): February/March, 2008; February/March, 2009; February/March 2010

Council Review Date(s): May/June, 2008; May/June, 2009; May/June, 2010

Earliest Anticipated Start Date: July 1, 2007; July 1, 2008; July 1, 2009; July 1, 2010

Expiration Date: September 14, 2009

Due Dates for E.O. 12372

Not Applicable

Additional Overview Content

Executive Summary

The National Institute for Occupational Safety and Health (NIOSH)/ Center for Disease Control and Prevention (CDC) invites grant applications for Education and Research Centers (ERC) that are focused on occupational safety and health training and research training. NIOSH is mandated to provide an adequate supply of qualified personnel to carry out the purposes of the Occupational Safety and Health Act, and the ERCs are one of the principal means for meeting this mandate. ERCs are academic institutions that provide interdisciplinary graduate training and continuing education in the core occupational safety and health areas of industrial hygiene (IH), occupational health nursing (OHN), occupational medicine residency (OMR), occupational safety (OS), as well as other closely related occupational safety and health (OSH) fields. Research and research training are integral components of ERCs, thus ERC scientists conduct peer reviewed, investigator initiated research on issues related to the

National Occupational Research Agenda (NORA). The NIOSH homepage provides a full description of occupational safety and health program areas, http://www.cdc.gov/niosh/homepage.html. The ERCs also serve as regional resource centers for industry, labor, government, and the public.

The total amount of funds awarded under this program is approximately $20 million dollars per year for new competing applications, competing renewal applications, and continuing awards. The number of awards for this program is between 12 and 20 depending on the quality of the applications and funds available. Each year the number of new competing and competing renewal awards will vary between one and ten depending on the number of awards that have ended. This program uses the T42 mechanism which is for the support of ERCs. You may submit (an) application(s) if your organization has any of the following characteristics:

- For-profit or non-profit organizations
- Public or private institutions, such as universities, colleges, hospitals, and laboratories
- Domestic institutions/organizations
- Units of State government
- Units of local government
- Eligible institutions of the Federal government
- Faith-based or community-based organizations
- Indian/Native American Tribal Government (Federally Recognized)
- Indian/Native American Tribal Government (Other than Federally Recognized)
- Indian/Native American Tribally Designated Organization

NOTE: Foreign institutions are not eligible to apply

Any individual with the skills, knowledge, and resources necessary to carry out the proposed occupational safety and health training and research training program is invited to work with their institution to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIOSH programs. An applicant institution may submit only one application under this announcement.

Application materials may be obtained from http://grants.nih.gov/grants/funding/phs398/phs398.html. In addition, supplemental instructions are provided on the NIOSH web site at: http://www.cdc.gov/niosh/oep/funding.html#train. Applicants must follow the instructions provided or the application will be returned as non-responsive.

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Part II - Full Text of Announcement

Section I. Funding Opportunity Description

The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of "Healthy People 2010," a PHS-led national activity for setting priority areas. This PA is related to one or more of the priority areas. Potential applicants may obtain a copy of "Healthy People 2010" at: http://www.health.gov/healthypeople.

1. Program Objectives

The purpose of this program is to continue existing, and/or establish new Education and Research Centers (ERC) that are focused on occupational safety and health training and research training. NIOSH is mandated to provide an adequate supply of qualified personnel to carry out the purposes of the Occupational Safety and Health Act, and the ERCs are one of the principal means for meeting this mandate. ERCs are academic institutions that provide interdisciplinary graduate training and continuing education in the core disciplines of Industrial Hygiene (IH), Occupational Health Nursing (OHN), Occupational Medicine Residency (OMR), Occupational Safety (OS), and other fields closely related to

occupational safety and health (OSH). Research and research training are integral components of the ERC concept. Thus, ERC scientists should conduct peer reviewed, investigator-initiated research on issues related to the mission of NIOSH. The NIOSH homepage provides a full description of occupational safety and health program areas, http://www.cdc.gov/niosh/homepage.html.

The ERCs are multidisciplinary/interdisciplinary awards that address OSH training and research training in a cross cutting and integrated manner, and should result in cross-fertilization among the various disciplines and impact safety and health practice and research. The ERCs are the major part of a network of training grants that help ensure there is an adequate supply of qualified professional occupational safety and health practitioners and researchers. These training programs are intended to provide multi-level practitioner and research training.

The ERCs have a significant role in the research to practice (r2p) initiative of the institute. Thus, ERCs are expected to undertake projects that have a focus on the translation of occupational safety and health research products into the practitioner environment. Through their continuing education, outreach, training and research training activities, ERCs are expected to significantly impact the practitioner environment in a measurable way. The ERCs also serve as regional and national resource centers on OSH issues for industry, labor, government, and the public.

In reviewing ERC applications, and in order to encourage new applications, consideration will be given to the training program requirements specified below, as well as the developing nature of proposed programs and the applicants stated ability to produce program graduates who will meet demonstrated occupational safety and health workforce needs. New ERCs may only request three years of support under this announcement.

Training Programs

This program may support Masters, Doctoral and Post-Doctoral training. This program will not support academic certificate programs. Grantees are expected to track all program graduates, including placement as well as progress in their careers.

Certain training areas are considered “core disciplines”. The core disciplines are: OMR, OHN, IH, and OS. In addition to these core disciplines, in order to take full advantage of the unique strengths and capabilities of institutions, consideration will be given to the development of new and innovative academic component programs in allied disciplines that are relevant to the occupational safety and health field, e.g., ergonomics, industrial toxicology, occupational injury prevention, occupational epidemiology, occupational health psychology, health services research, and agricultural safety and health. Innovative technological approaches to training and education are encouraged. In addition, an ERC may offer Hazardous Substance Academic Training (HSAT). The HSAT program supports trainees at the Masters level only.

Accreditation by the Accreditation Council for Graduate Medical Education (ACGME), http://www.acgme.org/acWebsite/home/home.asp, is required for OMR programs. In addition, an ERC is encouraged to have accreditation of the Masters level training programs by applicable recognized accrediting organizations.

ERCs must document that the core or allied disciplines will fill a gap in the selected occupational safety and health disciplines and as appropriate, state how a the selected disciplines meet a specific regional workforce need.

Students and faculty in the core discipline programs and component programs in allied disciplines are expected to be fully engaged in the interdisciplinary activities of the ERC.

Each core area program curriculum should include courses that fully prepare trainees to move into and/or advance in the OSH work community. Appropriate clinical rotations and field experiences with occupational safety and health agencies or other appropriate groups and with labor-management health and safety groups are encouraged.

Core programs can offer masters and doctoral degrees. Pre-doctoral training must lead to the Masters degree and/or the Ph.D. degree or a comparable research doctoral degree. Pre-doctoral research training should emphasize fundamental training in areas of occupational safety and health sciences. Undergraduate degrees and training are not authorized under this program. If an HSAT program is proposed, the HSAT program must ensure the successful completion by trainees of a 40-hour Hazardous Waste Operations training course to meet the requirements of 29CFR1910.120 either during or prior to enrollment.

Training Program Guidelines

An ERC is encouraged to provide Masters, Doctoral and Postdoctoral trainees instruction in the following areas:

1. Responsible conduct of research (required for Masters [research], Doctoral, and Postdoctoral trainees)

2. How to write research grant proposals (optional)

3. How to manage research laboratories (optional)

An ERC may provide training in as many core or allied program OSH areas as resources allow; however, the ERC application must have the components that are marked below as required. If one of the required components is not proposed, the application will be considered non-responsive and it will be returned to the applicant without a review:

• Two Core Programs in OHN, IH, OMR or OS. (REQUIRED)

There must be a minimum of five (5) full time trainees in each program, with the exception of OMR, where there must be at least four (4) full time trainees. For new applications, consideration will be given to the developing nature of academic programs and the ability to meet these requirements.

• One additional program in the core disciplines of OHN, IH, OMR, OS or other allied OSH discipline (for example Occupational Epidemiology, Ergonomics, Occupational Injury Prevention, Occupational Health Services. (REQUIRED)

• Additional allied OSH and HSAT Training Programs. (OPTIONAL)

There must be at least three (3) full time trainees in any additional allied OSH or HSAT programs. However, as in the past, HSAT programs do not qualify as one of the three required programs for an ERC.

• Continuing Education for OSH (REQUIRED)

An ERC must include a continuing education program for OSH that provides training courses for physicians, nurses, industrial hygienists, safety professionals and other occupational safety and health professionals, paraprofessionals and technicians, including personnel from labor-management health and safety committees, in the geographical region in which the ERC is located. The ERC continuing education course offerings should be based on the regional and national needs and the applicant should provide a rationale for the courses that are offered.

As a goal, an ERC is expected to provide continuing education training to a minimum of 400 trainees per year representing all of the above categories of personnel. ERCs should describe plans to target occupational safety and health training to physicians, industrial hygienists, occupational health nurses, and safety professionals. All ERC academic programs are expected to actively participate and contribute to the ERC continuing education program.

A priority for this program is to establish/continue new and innovative training technologies, including distance learning programs and short-term programs designed to prepare a cadre of skilled practitioners in occupational safety and health.

Where appropriate, Continuing Education Units (as approved providers) should be awarded. Also, the courses should be structured so that higher educational institutions, public health and safety agencies, professional societies or other appropriate agencies can utilize them to provide training at a local level to occupational health and safety personnel in the workplace.

NIOSH recognizes the significant development time and costs for establishing continuing education programs. Thus, consideration will be given to new applicants for their potential to develop and deliver continuing education courses.

• Continuing Education for Hazardous Substance Training (HST) may be proposed (OPTIONAL).

This program must be structured the same as the OSH continuing education program. The program must include public sector student participation.

• Occupational Health Physics (Optional)

This is an allied occupational safety and health academic program that is a new area of interest to NIOSH. Occupational health physicists establish radiation protection measures and radiation exposure characteristics for individual and classes of workers in various occupational environments where radioactive materials are used. Occupational Health Physics academic and research training programs are needed that provide masters and doctoral level training in health physics, radiation protection measures, exposure pathway analysis, and radiation dose estimation and reconstruction. These are critical areas of instruction and essential components of occupational health radiation protection programs.

Center-Wide Activities

This aspect of the project is made up of multiple program activities. It is noted on the list below whether the activities are required or optional:

• Administrative Core (REQUIRED)

The ERC will have an administrative structure and management plan that supports the operation of the ERC. The Administrative Core will provide a supportive structure to ensure accomplishment of 1) coordination and integration of Center components and activities; 2) assessment of productivity, effectiveness, and appropriateness of Center activities; 3) organization of Center activities, such as retreats, invitation of consultants, meetings, and focus groups; 4 organization of the Internal and External Advisory Committees; 5) record keeping of meeting minutes and measures of success, including training outcomes for the various Core Programs, the Pilot Project Program, and Outreach activities; and 6) Interactions with other ERCs, the NIOSH, and other appropriate individuals, groups, or organizations.

• Center Director's Meeting (REQUIRED)

The Center Director must attend an annual Center Director's meeting that will rotate between ERC sites. For planning purposes, the applicant should budget for the meeting to be in Washington, DC.

• Board of Advisors and Executive Committee (REQUIRED)

The ERC should also establish a Board of Advisors that represents the users and affected populations and may include representatives of labor, industry, government agencies, academic institutions and professional associations. It is expected that this advisory board would meet annually and provide critical advice to the ERC Director. The ERC should also have an executive committee that assists the ERC Director in the management of the program. It is recommended that this committee be composed of the ERC Director, Deputy Director, Academic Program Directors, Continuing Education Program Director, and others whom the ERC Director may determine are needed for the management of the ERC.

• Outreach to Occupational Health Community/ Research to Practice (REQUIRED)

An essential component of an ERC is the outreach and research to practice activities with other institutions, businesses, community groups or agencies located within the region. Programs should address serving area needs and implement innovative strategies for meeting those needs with a focus on impacting the practitioner environment. Partnerships and collaborative relationships are encouraged between ERCs and NIOSH-funded Training Project Grantees. Examples of outreach activities might include: interaction other universities or other educational institutions in the ERC region to integrate occupational safety and health principles and concepts within existing curricula (e.g., Colleges of Business Administration, Engineering, Architecture, Law, and Arts and Sciences); providing curriculum materials and consultation for curriculum/course development in other institutions; use of a visiting faculty program to involve labor and management leaders; cooperative and collaborative arrangements with professional societies and scientific associations; and presentation of awareness seminars to undergraduate and secondary educational institutions (e.g., high school science fairs and career days) as well as to labor, management and community associations. A priority for outreach is for activities that will have a measurable impact on the practitioner environment. Thus, outreach activities that facilitate the translation of research and training products into the practitioner environment are the highest priority.

• Diversity Recruitment Plan (REQUIRED)

ERCs are encouraged to recruit and train minority students to help address the under-representation among the occupational safety and health professional workforce. A detailed plan to address the under-representation of minorities among occupational safety and health professionals and for the recruitment of underrepresented minorities to the core programs must be a part of the application. The initial review

group will review this plan as part of the overall rating of the application. Specific efforts to conduct outreach activities to develop collaborative training programs with academic institutions serving minority and other special populations, such as Tribal Colleges and Universities, Historically Black Colleges and Universities, and Hispanic-Serving Institutions are encouraged.

• Interdisciplinary Coordination. (REQUIRED)

The applicant should describe a plan for ensuring the interdisciplinary coordination and interaction of the trainees in all academic training programs. For each core program (OMR, IH, OHN, OS), the applicant may request up to 5% effort for the program director for interdisciplinary coordination/integration of the ERC training programs.

• Pilot/Small Projects Research Training Program (OPTIONAL)

Support for projects relevant to the National Occupational Research Agenda (NORA) of NIOSH is considered fundamental to sustaining the quality, breadth, and dynamics of the ERC program. These projects are intended for the exploration and development of new and creative exploratory, prevention/intervention and translation projects, and are considered an important and integral part of the support provided to the ERC. Any projects that would be conducted beyond the U.S. and Territories must be submitted to the NIOSH Program Official for prior approval. The request for approval must include documentation of IRB approval both from the grantee institution as well as from the appropriate IRB within the host country. These pilot/small projects should provide support for new, short-term projects and applicants for such projects must be limited to junior faculty, new investigators, or research trainees. Funded projects are not eligible for renewal.

This program will enable investigators to collect sufficient data to pursue subsequent support through other funding mechanisms. Examples of pilot/small projects may include, but are not limited to:

1. Provide initial support to develop innovative approaches/lines of investigation in the program areas.

2. Allow exploration of possible innovative new directions in OSH sciences.

3. Stimulate investigators from other fields to apply their expertise to OSH issues.

4. Develop new mechanisms for external or multi-ERC collaborative partnerships to address emerging safety and health concerns.

5. Provide initial support for a translational/research to practice project.

6. Support for trainee capstone projects.

While the administrative framework for management of the ERCs Pilot/Small Project Program is left to the Center Director's discretion, certain minimal requirements must be met. Management of the program must include provisions for:

1. A mechanism that ensures preparation and appropriate announcement of the availability of pilot/small project funding.

2. A mechanism for merit review of pilot/small project proposals and documentation that projects address a NORA topic. Copies of all proposals, with documentation of their reviews, relative ranking, and final action must be retained by the Center. These records must be available to reviewers in the event of a site visit. These records should include a categorization of the projects funded by NORA area.

3. A mechanism to maintain a record of subsequent results of each pilot/small project (abstract, RO1/R21 submission/award, dissertation, etc.) recipient. This record must be available to reviewers in the event of a site visit for competing renewals. Input by both the Internal Executive Committee and the External Advisory Committee into the management of the Pilot/Small Projects Program is strongly recommended.

4. All ERC pilot/small projects, including those being conducted by other institutions that involve human subjects must be reviewed and approved by an IRB in advance of project funding to ensure protection of the rights and welfare of human subjects. (See 45 Code of Federal Regulations 46.) The IRB must be registered with the DHHS Office of Human Research Protections and have completed a Federalwide Assurance. Documentation of IRB approval of protocols, as well as copies of currently approved consent forms, must be maintained in the ERC administrative files. Documentation of IRB approvals for pilot/small projects must be submitted as a component of ERC annual progress reports. "IRB Approval" means full, final IRB approval. In addition all ERC project protocols must comply with all applicable Federal and State regulations.

• Targeted Research Training in Occupational Safety and Health (OPTIONAL)

The ERCs represent a variety of strengths and approaches that are required in order to promote high quality research in occupational safety and health, and are a major vehicle for the development of future leaders in occupational safety and health research. They are structured to foster development of interdisciplinary research skills that are needed to effectively address the National Occupational Research Agenda (NORA) priority areas and are a critical link to practicing occupational safety and health professionals and others to translate research findings into interventions that prevent illness and injury in the workplace. These projects are also intended to provide practical training opportunities and thus must include trainee(s) participation in the projects.

Examples of relevant projects that would be responsive include:

1. Research Training and Research to Practice.

a. Collaborative Research Training Programs. These are programs that train occupational safety and health professionals from other disciplines but who enroll in appropriate OSH courses and participate in ERC interdisciplinary activities. Pilot Programs to attract MS/PhD or doctoral students from closely related occupational safety and health disciplines and conduct NORA-related dissertation research may be supported. For some closely related occupational safety and health disciplines it may be too costly to establish independent research training programs and collaborative arrangements with other training programs may be a more cost effective approach. The pilot effort for this announcement is intended to encourage ERC applicants, where appropriate, to partner with such existing research training programs. Support may include NORA-related dissertation research, occupational safety and health coursework, and stipend and other support for trainees enrolled in the program. Applications should include sample curricula that demonstrate how supported students will obtain an understanding of the technical, professional, regulatory, and interdisciplinary components of occupational safety and health as it relates to their discipline Proposed programs should be developed similar to the NIH Institutional NRSA T32 program. Supported trainees are expected to fully participate in the ERC interdisciplinary interaction activities.

b. Research to Practice (R2P) Programs. R2P is an underlying principle for NIOSH research programs and are an integral component of the NIOSH research philosophy. Projects that advance research findings into the workplace may be supported. Translational, intervention, and dissemination projects that focus on the delivery of NORA-related research findings to partners who can effect change and prevent worker illness and injury are strongly encouraged. Such projects must include evaluation plans that will enable the assessment of their impact on worker illness and injury. Mechanisms that may be utilized include outreach, continuing education, and visiting scholars programs.

c. Interdisciplinary Research Training Programs. Programs to provide interdisciplinary predoctoral research training in NORA-related projects may be supported. The research training must emphasize specialized skills to assist in addressing NORA priorities in occupational safety and health. Supported trainees must be enrolled in approved ERC academic core or allied training programs.

Section II. Award Information

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1. Mechanism(s) of Support

This funding opportunity will use the NIOSH T42 award mechanism(s). As an applicant, you will be solely responsible for planning, directing, and executing the proposed project.

Competing supplement grant applications from current T42 grantees are also permitted. Applicants should follow the PHS 398 application instructions for competing supplement applications. (See http://grants.nih.gov/grants/funding/phs398/phs398.html). Separate competing supplement grant applications should be submitted for each new or amended Academic Training Component or Targeted Research Training Project.

This funding opportunity uses the just-in-time budget concepts. It also uses the non-modular budget format described in the PHS 398 application instructions (see http://grants.nih.gov/grants/funding/phs398/phs398.html). A detailed categorical budget for the "Initial Budget Period" and the "Entire Proposed Period of Support" is to be submitted with the application.

This program is an ongoing program. The announcement is open for applications for three years, and NIOSH intends to re-announce the program upon expiration of this announcement. An Applicant may request a project period of up to five years.

2. Funds Available

The total amount of funds awarded under this program is approximately $20 million dollars per year for new competing applications, competing renewal applications, and continuing awards. The number of awards for this program is between 12 and 20 depending on the quality of the applications and funds available. Each year the number of new competing and competing renewal awards will vary between one and ten depending on the number of five year awards that have ended. The anticipated start date for these awards is July 1 of the year following application submission and the maximum performance period that may be requested is five years.

Applicants may request awards up to $1,800,000 per year in total costs.

Although the financial plans of NIOSH provide support for this program, awards pursuant to this funding opportunity are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications.

Section III. Eligibility Information

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1. Eligible Applicants

1.A. Eligible Institutions

You may submit an application if your organization has any of the following characteristics:

- For-profit or non-profit organizations
- Public or private institutions, such as universities, colleges, hospitals, and laboratories
- Domestic institutions/organizations
- Units of State government
- Units of local government
- Eligible institutions of the Federal government
- Faith-based or community-based organizations
- Indian/Native American Tribal Government (Federally Recognized)
- Indian/Native American Tribal Government (Other than Federally Recognized)
- Indian/Native American Tribally Designated Organization

NOTE: Foreign institutions are not eligible to apply

1.B. Eligible Individuals

Any individual with the skills, knowledge, and resources necessary to carry out the proposed occupational safety and health training program is invited to work with their institution to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIOSH programs.

2. Cost Sharing or Matching

Cost sharing is not required.

3. Other-Special Eligibility Criteria

Post-doctoral trainees must meet the NIH guidelines for support under the National Research Service Award (T32) program. See the following web site for further information on the NIH guidelines: http://grants2.nih.gov/grants/guide/pa-files/PA-02-109.html

An applicant institution may only submit one comprehensive center grant application under this announcement. However, current T42 grantees can submit one or multiple competing supplement grant applications according to the PHS 398 Instructions (see http://grants.nih.gov/grants/funding/phs398/phs398.html). Separate competing supplement grant applications should be submitted for each new or amended Academic Training Component or NORA Project.

Note: Title 2 of the United States Code Section 1611 states that an organization described in Section 501(c)(4) of the Internal Revenue Code that engages in lobbying activities is not eligible to receive Federal funds constituting an award, grant, or loan.

Section IV. Application and Submission Information

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1. Address to Request Application Information

The PHS 398 application instructions are available at http://grants.nih.gov/grants/funding/phs398/phs398.html in an interactive format. Applicants must use the currently approved version of the PHS 398. For further assistance contact GrantsInfo, Telephone (301) 435-0714, Email: GrantsInfo@nih.gov.

Telecommunications for the hearing impaired: TTY 301-451-0088.

2. Content and Form of Application Submission

Applications must be prepared using the most current PHS 398 research grant application instructions and forms. Applications must have a D&B Data Universal Numbering System (DUNS) number as the universal identifier when applying for Federal grants or cooperative agreements. The D&B number can be obtained by calling (866) 705-5711 or through the web site at http://www.dnb.com/us/. The D&B number should be entered on line 11 of the face page of the PHS 398 form.

The title and number of this funding opportunity must be typed on line 2 of the face page of the application form and the YES box must be checked.

The application for this program uses both the detailed budget page (form page 4) and the substitute form page 4 ("NRSA Substitute Detailed Budget for Initial Budget Period Direct Costs") of the 398 application. Applicants that do not submit the budget in the required format will have their applications returned as non-responsive. Limits on funding levels for each component are listed below in section IV.6, "Other Submission Requirements."

SUPPLEMENTAL INSTRUCTIONS

All training activities should be consistent with the goals of the ERC program and should be based on well documented occupational safety and health needs. In order to assist applicants in the preparation of an application that can be reviewed, a number of supplemental instructions are provided. The applicant

should follow the special instructions for institutional training grants contained within the PHS 398 and the supplemental instructions for preparing an ERC application, http://www.cdc.gov/niosh/oep/funding.html#train . The applicant should follow the page limits specified in the outline below, and ensure that each activity is clearly described and identified. The application should be organized as indicated below:

TABLE OF CONTENTS FOR AN EDUCATION AND RESEARCH CENTER APPLICATION

In order to facilitate the preparation and review of the ERC application, the following Table of Contents should be used. It is a minor modification of the PHS 398 Table of Contents.

o PHS 398 Face Page

o PHS 398 Form Page 2: ERC Description, Performance Sites, and Personnel (use additional continuation pages as needed for the key personnel)

o Table of Contents

o Detailed Budget for the Initial Budget Period Direct Costs for the entire ERC (Form page 4)

o Budget for the Entire Proposed Period of Support for the entire ERC (Form page 5)

o Detailed Budget for each ERC Area for the Initial Budget Period organized by program area (center-wide activities and each proposed training program). Label each budget page in top left margin with the name of the program area. An applicant must use budget form page 4 for each program area. Academic training programs must also use substitute budget form page 4 (Substitute Detailed Budget for Initial Budget Period Direct Costs) in order to display and justify trainee expenses. Budget form page 4 and substitute budget form page 4 for each academic program should be cross-referenced and have the same total direct costs.

o Budget for the Entire Proposed Period for each ERC area (Form page 5). Form page 5 is completed for each program area proposed. For the academic training programs, also use the substitute budget form page 5 (Substitute Budget for Entire Proposed Period of Support Direct Costs).

Label each form page 5 using the top left margin with the name of the program area.

o Biographical Sketch-Principal Investigator/Program Director

o Other Biographical Sketches

o Other Support

o Overall Description of the ERC (2 page maximum)

o Past Performance/Accomplishments in Last Project Period (existing ERCs- 5 page maximum excluding tables on graduates)

o Past Performance/Accomplishments Relevant to ERC goals (new applicants- 5 page maximum excluding tables on graduates)

o Resources Statement on the Institutional/Other Commitments to the ERC (1 page maximum, see page 57-58 of 398 instructions)

o Human Subjects summary table that lists all the projects and human subjects information (title, performance sites, FWAs, IRB approval date/status, if applicable)

o Cover Sheet: labeled Center Wide Activities Section

o PHS 398 Form Page 2: Center Wide Activities Description, Performance Sites, and Personnel

o Cover Sheet labeled Administrative Core; include name of individual responsible for Admin Core (usually the Center Director)

o Administrative and Planning Core Description (should not exceed three pages)

o Cover Sheet: labeled Outreach Plan

o Outreach plan (should not exceed five pages)

o Cover Sheet: labeled Diversity Recruitment Plan

o Diversity Recruitment Plan (should not exceed two pages)

o Cover Sheet: labeled Interdisciplinary Coordination Plan

o Interdisciplinary Coordination Plan. This plan should not exceed two (2) pages.

o Cover Sheet: labeled Pilot/Small Projects Program

o Pilot/Small Projects Program Plan (should not exceed ten pages)

o Cover Sheet: Targeted Research Training.

o PHS 398 Form Page 2: Targeted Research Training Plan(s), Description(s), Performance Sites, and Personnel. This Form should be provided for each TRT Project.

o Targeted Research Training Project Plan(s) should not exceed 15 pages.

o Cover Sheet labeled Training Programs Section

o Cover Sheet: Academic Training Component A (replace A with name of training component such as IH, OHN, OMR, etc); include name of program director responsible for this component.

o PHS 398 form page 2 for Academic Training Component A (replace A with name of training component such as IH, OHN, OMR, etc)

o Program Plan: Academic Training Component A (follow Program Plan outline on website at: http://www.cdc.gov/niosh/oep/funding.html#train. It should not exceed 15 pages excluding tables. Occupational safety and health course content outlines and sample curricula/programs of instruction must be included within an appendix.

o Cover Sheet: Academic Training Area B (replace B with the name of the academic training component such as IH, OHN, OS, etc); include name of program director responsible for this component.

o PHS form 398 page 2: Training Component B (replace B with name of academic training component such as IH, OHN, OS, etc)

o Program Plan: Academic Training Component B (follow Program Plan outline on website at: http://www.cdc.gov/niosh/oep/funding.html#train. It should not exceed 15 pages excluding tables.

o Continue with as many sections as there are academic training components.

o Cover Sheet: Continuing Education in Occupational Safety and Health

PHS 398 Form page 2: Continuing Education in Occupational Safety and Health

o Program Plan: Continuing Education for Occupational Safety and Health (follow Program Plan outline on website at: http://www.cdc.gov/niosh/oep/funding.html#train. It should not exceed 15 pages excluding tables.

o Cover Sheet: Continuing Education for Hazardous Substance Training (if applicable)

PHS 398 Form page 2: Continuing Education for Hazardous Substance Training

o Program Plan: Continuing Education for Hazardous Substance (follow Program Plan outline on website at http://www.cdc.gov/niosh/oep/funding.html#train) It should not exceed 15 pages excluding tables.

o Human Subjects including summary table that lists all the projects and human subjects information (title, performance sites, FWAs, IRB approval date/status, if applicable)

o Vertebrate Animals

o Literature Cited

o Consortium/Contractual Arrangements

o Consultants and Collaborators, including NIOSH/CDC

Suggested tables for an ERC application are listed in the supplemental instructions at: http://www.cdc.gov/niosh/oep/funding.html#train.

Note: In the top left margin of the detailed and summary budget pages, the Center Director should identify the project title. For example, Academic Training Program: Industrial Hygiene. Type density and size throughout the entire application must conform to the limits provided on page 14 in the PHS 398 instructions.

The format and content of competing supplement grant applications should conform to the PHS 398 Instructions (see http://grants.nih.gov/grants/funding/phs398/phs398.html). Separate competing supplement grant applications should be submitted for each new or amended Academic Training Component or Targeted Research Training Project.

An appendix is permitted but should include only those materials appropriate for the proposed components. Appendices are commonly provided with ERC applications and are encouraged, especially course descriptions, sample curricula, and course brochures. Syllabi for academic disciplinary areas and publications and manuscripts that are related to research projects may also be included. Appendix materials should be supplied in the form of a PDF file contained on a CD ROM disk. Please follow the guidelines for creating PDF files provided by the eRA Commons (see http://era.nih.gov/ElectronicReceipt/pdf_guidelines.htm). Paper copies of appendix materials will not be accepted. Otherwise, the preparation of appendices should conform to the guidelines described by the PHS 398 Instructions (see http://grants.nih.gov/grants/funding/phs398/phs398.html).

3. Submission Dates and Times

Applications must be received on or before the receipt date described below (Section IV.3.A). Submission times N/A.

3.A. Receipt, Review and Anticipated Start Dates

Application Receipt Date(s): September 13, 2006; August 14, 2007; August 14, 2008; August 14, 2009
Peer Review Date(s): February/March, 2008; February/March, 2009; February/March 2010
Council Review Date(s): May/June, 2008; May/June, 2009; May/June, 2010
Earliest Anticipated Start Date: July 1, 2007; July 1, 2008; July 1, 2009; July 1, 2010

3.A.1. Letter of Intent

A letter of intent is not required for this funding opportunity.

3.B. Sending an Application to the NIOSH

Applications must be prepared using the PHS 398 research grant application instructions and forms as described above. Submit a signed, typewritten original of the application, including the checklist, and three signed photocopies in one package to:

Center for Scientific Review
National Institutes of Health
6701 Rockledge Drive, Room 1040, MSC 7710
Bethesda, MD 20892-7710 (U.S. Postal Service Express or regular mail)
Bethesda, MD 20817 (for express/courier service; non-USPS service)

At the time of submission, two additional copies of the application and five CD ROM disks containing appendix materials (if any) must be sent to:

Chris Langub, Ph.D.
Scientific Review Administrator
Office of Extramural Programs
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
1600 Clifton Road, N.E., Mailstop E74
Atlanta, GA 30333

Telephone: (404) 498-2543
FAX: (404) 498-2571
Email: CLangub@cdc.gov

Overnight Mail Address:

2400 Century Parkway NE (4th Floor)
Atlanta GA 30345-3114

3.C. Application Processing

Applications must be **received on or before the application receipt date(s)** described above (Section IV.3.A.). If an application is received after that date, it will be returned to the applicant without review. Upon receipt, applications will be evaluated for completeness by CSR and responsiveness by NIOSH.

NIOSH will not accept any application in response to this funding opportunity that is essentially the same as one currently pending initial review unless the applicant withdraws the pending application. NIOSH will not accept any application that is essentially the same as one already reviewed. This does not preclude the submission of a substantial revision of an application already reviewed, but such application must include an Introduction addressing the previous critique.

Although there is no immediate acknowledgement of the receipt of an application, applicants are generally notified of the review and funding assignment within eight (8) weeks.

4. Intergovernmental Review

This initiative is not subject to intergovernmental review.

5. Funding Restrictions

All CDC awards are subject to the terms and conditions, cost principles, and other considerations described in the PHS Grants Policy Statement. (see also Section VI.3. Award Criteria). Additional guidance can be found at NIH Grants Policy Statement.

The ERC Center funding mechanism should not be used as a substitute for individual research grant support. It is expected that research investigators participating in the ERC Centers will have a history of independent project support in addition to the special support available to ERC members.

Generally, funds for renovation of existing facilities or to purchase substantial amounts of equipment will not be allowed. If such requests are made, they must be justified in terms of the critical nature of the equipment/renovations for the success of the overall objectives of the ERC award.

Indirect costs are limited to 8% of total direct costs exclusive of tuition and fees, and equipment.

6. Other Submission Requirements

To help assure the stability of the Center, the Center Director, Deputy Director, and Program Directors must be full-time faculty and administrative staff.

Applications for this announcement will use the budget form page 4 and 5 and NRSA substitute form page 4 and 5 to display the budgets. The facilities and administrative costs for this program are limited to 8% of the total direct costs, exclusive of tuition and fees, and equipment. The NIOSH web site provides an example of tables for this program. The web address is http://www.cdc.gov/niosh/oep/funding.html#train .

Individuals may receive up to five years of support at the predoctoral level and three years of support at the postdoctoral level. Any exception to the maximum period of support requires a waiver from NIOSH based on review of justification form the individual and d the institution. Stipends are not allowed for part-time trainees.

Funding may be requested up to the levels described below. Unless an applicant receives written permission from the NIOSH program director named below, any requests for funding above these levels will cause the application to be determined non-responsive, and the application will not be reviewed. No new ERC Supplemental Program awards will be made in Fiscal Year 2010.

Trainee Stipends

Stipends are provided as a subsistence allowance to help trainees defray living expenses during the training experience. It is not provided as a condition of employment with either the Federal Government or the awardee institution. Stipends may be paid to eligible trainees. Stipend budgets must be based on the levels established for the current fiscal year of the grant. For appointments of less than a full year, the stipend will be based on a monthly or daily pro-ration. The monthly stipend amount is calculated by dividing the current annual stipend by 12. The daily stipend is calculated by dividing the current annual stipend by 365.

- OMR: Stipends are set by the university for all residents, but NIOSH will only support up to the post graduate year (PGY) NIH stipend level.

- Masters/Doctoral Core Program in OHN, IH, OS, or other OSH area: Stipend is set at NIH stipend levels. (These levels can be found at the following web address: http://grants1.nih.gov/training/nrsa.htm)

Tuition and Fees

The institution may request tuition and fees (including appropriate health insurance) only to the extent that the same resident or nonresident tuition and fees are charged to regular non-Federally supported students. Tuition at the postdoctoral level is limited to that required for specified courses.

Other Trainee Costs

Trainee travel, including attendance at scientific meetings that the institution determines to be necessary to the individual's training, is an allowable trainee expense.

Additional support for travel to a training experience away from the institution may be permitted. Training experiences away from the parent institution must be justified considering the type of opportunities for training available, the manner in which these opportunities differ from and compliment those offered at the parent institution, and the relationship of the proposed experience to the trainee's career stage and goals. This type of training requires prior approval from NIOSH. Letters requesting such training may be submitted to NIOSH at any time during the award period. For OMR training, applicant may request funds for other necessary costs required for the residency training such as malpractice insurance, hospital parking and other required expenses for all residents at the institution.

Trainee Related Expenses

Funds may be requested to defray the cost of other training related expenses such as staff salaries, consultant costs, equipment, supplies, and travel expense for the training faculty. Because there are core costs that are fixed, the following scale should be used to determine the training related expenses. For the core academic programs (IH,OS, OHN), training related expenses are $12,000 per full time trainee supported by the ERC award for the first five (5) trainees, and $3,000 per each additional full time/full time equivalent trainee supported by the ERC award. For the allied OSH and HSAT programs, training related expenses are $12,000 per full time trainee supported by the ERC award for the first three (3) trainees, and $3,000 per each additional full time/full time equivalent trainee supported by the ERC award. For the core academic OMR program training related expenses are $20,000 per full time trainee supported by the award for the first four (4) trainees, and $5,000 per each additional full time/full time equivalent trainee supported by the ERC award. However, training related expenses cannot exceed 40 % of the total program budget for all academic programs. The training programs use substitute form page 4, and in the training related expense section, the name of the students and academic status (full time (f/t), half

time(1/2) , one third time (1/3) are listed. Because many programs provide support for trainees from other sources, it is appropriate to list all trainees in the program. Students that are to be supported should be identified. If needed, use a continuation page to list the names of the trainees. For programs that have vacant positions that will be filled during the year, enter TBN for each position requested.

Administrative Core Funds:

The administrative core will support the management, academic and research development, and other center activities not supported by other categories. Up to one half of a full-time equivalent effort between the center director and deputy director may be requested. Up to 100% of a full-time equivalent for administrative support for the Center may be requested. Funds may also be requested to support the external advisory committee. These funds should be requested on a budget form page 4 labeled administrative core. Up to $250,000 per year in direct costs may be requested.

Center Director's Fund

An applicant may request up to $50,000 per year in direct costs for a Center Director's fund as part of the administrative core budget. These funds are intended to provide ERC Directors discretionary funds to meet unplanned expenses and take advantage of unexpected opportunities. These funds may also be used for travel to the Center Director's meeting and other necessary travel for the Center personnel estimated to be $5,000. Although the specific uses of these funds may vary each year, the applicant should provide a best estimated description of how these funds would be used.

Continuing Education for OSH (REQUIRED)

Up to $100,000 per year in direct costs may be requested.

Continuing Education for Hazardous Substance Training (OPTIONAL)

Up to $75,000 per year in direct costs may be requested. This budget must include a minimum of $10,000 for public sector student participation assistance.

Outreach to Occupational Community/ Research to Practice (REQUIRED)

Up to $35,000 in direct costs may be requested per year. A detailed budget for this activity is required; in the budget justification, the Center Director should describe the use of these funds.

Pilot/Small Projects Program (OPTIONAL)

Up to $100,000 in direct costs may be requested per year. There is a maximum of $20,000 allowed per project. The Center Director is solely responsible for these funds. A detailed budget for this activity is required; in the budget justification, the center director should describe the use of these funds. These projects must be on a NORA topic and may not be renewed.

Interdisciplinary Coordination. (REQUIRED)

For each core program (OMR, IH, OHN, OS), the applicant may request up to 5% effort for the academic program directors for interdisciplinary coordination/integration of the ERC academic training programs. A total of up to up to $30,000 per year in direct costs may be requested.

Diversity Recruitment Plan (REQUIRED)

Up to $5,000 in direct costs may be requested per year. Include in the overall budget page under “Other Expenses”, and label it Diversity A detailed budget for this activity is not required, however in the budget justification; the center director should describe the use of these funds.

Targeted Research Training in Occupational Safety and Health (OPTIONAL)

Up to $300,000 per year for support may be requested for Targeted Research Training projects. . Each project must have a cover sheet, a PHS 398 form page 2 description, a detailed and summary budget, and a project plan not to exceed 15 pages. Each research training and research to practice project must include a detailed budget and justification and the project plans should not exceed 15 pages. Projects that are solely for the support of trainees through collaborative partnerships should follow the guidance for training program budgets.

Appendix material must be supplied as a PDF file on a CD ROM disk. Please follow the guidelines for creating PDF files provided by the eRA Commons (see http://era.nih.gov/ElectronicReceipt/pdf_guidelines.htm). Paper copies of appendix materials will not be accepted. Otherwise, the preparation of appendices should conform to the guidelines described by the PHS 398 Instructions (see http://grants.nih.gov/grants/funding/phs398/phs398.html).

Plan for Sharing Research Data

Not applicable.

Sharing Research Resources

Not applicable.

Section V. Application Review Information

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1. Criteria

Only the review criteria described below will be considered in the review process.

2. Review and Selection Process

Applications submitted for this funding opportunity will be assigned to NIOSH.

Appropriate scientific review groups convened by NIOSH in accordance with the standard NIOSH peer review procedures (http://www.csr.nih.gov/refrev.htm) will evaluate applications for scientific and technical merit.

As part of the initial merit review, all applications will:

- Receive a written critique consisting of
    - A separate evaluation of each of the component ERC training programs
    - A separate evaluation of each of the individual TRT projects
    - An evaluation of the Center-Wide Activity Program
    - A summary evaluation of the overall ERC program
- Receive a second level of review by the NIOSH Secondary Review Committee.

Applications are selected for funding primarily on the basis of scientific and educational merit, but other factors are considered. The following will be considered in making funding decisions:

- Scientific and educational merit of the proposed project as determined by peer review
- Availability of funds
- Relevance to program priorities
- Balance among the academic disciplines for all training programs
- Institutional support for the program
- Amount of peer reviewed support of faculty that is related to OSH

The NIOSH objectives include the support of education programs that train personnel to address occupational safety and health issues, and provide continuing education programs for personnel engaged in occupational safety and health work. In the written comments, reviewers will be asked to discuss the

following aspects of the application in order to judge the likelihood that the proposed training and research training will have a substantial impact on the pursuit of these objectives. The scientific review group will address and consider each of these criteria in assigning the application's overall score, weighting them as appropriate for each application.

SITE VISITS

A site visit to the applicant institutions may be made (but such site visits are not assured) to evaluate the overall merit of the application. The site visit team includes members of the Special Emphasis Panel who have expertise in major academic training, continuing education, facilities, outreach, and other activities of the proposed Center, the NIOSH Scientific Review Administrator, and NIOSH staff observer(s).

A site visit is not a prerequisite and is not assured for consideration of an application by NIOSH. Therefore, the application is considered a complete document for review purposes. Furthermore, the applicant should not use the site visit as an occasion for adding programs, research projects, or personnel, for making major changes, or for delivering another exposition of the application. Rather, it should be used by the center director and associates to elaborate on the Center and it’s programs, cost effectiveness and quality control features of the programs, and on other Center activities for which funding is requested, as well as to answer reviewers' questions. The site visit team will not consider any area that is presented for evaluation at the site visit which has not been included in the application. Budgetary changes also will not be considered at the time of a site visit. The findings of the site visit team are reported and discussed by the members of the SEP, which makes the final peer review recommendations and assigns the priority score.

REVIEW CRITERIA FOR OVERALL ERC (INCLUSIVE OF ALL CENTER WIDE ACTIVITIES, ACADEMIC TRAINING PROGRAMS, CONTINUING EDUCATION PROGRAMS, AND TARGETED RESEARCH TRAINING PROJECTS)

- SIGNIFICANCE: The impact of the Center in meeting the regional and national needs for occupational safety and health training. Does the creation or continuation of a particular center push forward the field of occupational safety and health, and is it a driving resource to the region.
- PAST PERFORMANCE: The adequacy of the record of the ERC in training and the degree to which the Center has established itself as a recognizable entity in the fields of occupational safety and health, occupational medicine and public health. The principal performance measure will be the success of the training program in developing practitioner and research leaders in occupational safety and health. The impact and productivity of the Center will also be measured in through publications by Center investigators, conferences, new funded research grants in occupational safety and health, new collaborations with other organizations, etc. For competing continuation applications, the evaluation will be based on information submitted since the

previous competitive review. For new applications, this will be based on the history of prior efforts and the project plans.

- APPROACH. Is the application cohesive and likely to achieve synergy and integration of the component programs? Is the proposed Center more than the sum of its parts, not just a collection of programs? Are the training programs well integrated with each other and designed to foster interdisciplinary interaction? Are the NORA projects well integrated with the ERC training activities?
- INNOVATION: The degree of innovation of the program. Does the ERC propose new and innovative programs and maintain highly effective approaches to training and education relevant to the occupational safety and health field?
- ENVIRONMENT: Quality, sufficiency, and multidisciplinary character of the combined training and research environment. Evidence of institutional commitment to the goals of the ERC.
- TRAINING STAFF: The qualifications of the Center Director and leadership team in managing a complex education and training program in occupational safety and health in an institutional environment. The qualifications of the training staff with respect to experience and training in education and record of accomplishments as research investigators in occupational safety and health.
- CANDIDATES: The adequacy of plans for recruiting high quality trainees in the different fields of occupational safety and health and the adequacy of plans for recruiting candidates from underrepresented groups.

REVIEW CRITERIA FOR CENTER WIDE ACTIVITIES

- ADEQUACY OF THE ADMINISTRATIVE CORE: Are there adequate overall plans for administration and management of the ERC to support all facets of the operation of the ERC. Is the Center Director adequately supported and is there adequate management depth to provide long-term continuity of Center leadership? Does the administrative structure facilitate communication among the Center leaders and the Program Directors of the ERC. Are the plans for day-to-day management, allocation of funds and cooperative arrangements designed to effectively achieve the goals of an ERC?
- Adequacy of a Board of Advisors and executive committee: Are there appropriate plans for organizing and convening a Board of [external] Advisors to advise the ERC on the overall success of the work of the ERC. Are there appropriate plans for an Executive Committee drawn from internal faculty to advise and assist the ERC Director?
- ADEQUACY OF THE OUTREACH PLAN TO THE OCCUPATIONAL HEALTH AND SAFETY PRACTITIONER COMMUNITY: Does the program adequately describe activities that will impact other institutions or agencies located within the ERC region? Does the program facilitate the translation of occupational safety and health findings into the work environment? Are appropriate

occupational safety and health constituents engaged in the program? Will the proposed activities have an impact on the practitioner or ability to affect occupational safety and health?

- ADEQUACY OF THE PILOT/SMALL GRANTS RESEARCH PROGRAM: Are the goals for the program well described? Is the plan to conduct the Pilot/Small Projects Program adequate? This includes the adequacy of procedures for reviewing and funding projects, the scientific review mechanism, and program quality assurance. Does the applicant encourage participation by other investigators interested in occupational safety and health either within the institution or regional institutions? Is the plan for announcing the Pilot/Small Project Program funding adequate? Does the investigator provide a plan for retaining copies of all proposals, with documentation of their reviews, relative ranking, and final action? Is there a mechanism for tracking the results of each Pilot/Small Project study (abstract, RO1/R21 submission, dissertation, etc.)?
- ADEQUACY OF A DIVERSITY RECRUITMENT PLAN: Does the recruitment plan adequately address diversity recruitment issues? Has the applicant described appropriate plans for attracting underserved and underrepresented individuals into the core programs and, more generally, into the occupational health and safety professions? Have these individuals been successful in obtaining a degree?
- ADEQUACY OF AN INTERDISCIPLINARY COORDINATION PLAN: Does the applicant describe an appropriate plan for ensuring and enhancing interdisciplinary coordination among the academic programs? Does the applicant provide evidence of past success in interdisciplinary coordination?

REVIEW CRITERIA FOR ACADEMIC TRAINING PROGRAMS

Core, other allied OSH Academic Training Programs, and HSAT Program

- SIGNIFICANCE: The potential impact of the program in meeting the regional and national needs for occupational safety and health training.
- PAST PERFORMANCE: The adequacy of the record of the program in training and the success of graduates as documented in part by the required table that includes numbers of trainees, length of training, employment history, placement, and location and type of placement. Success in training students can be further documented through progress in their careers after graduation. Evidence of career development can include receipt of fellowships, career awards, further training appointments, and similar accomplishments. Evidence of a productive career can include a record of successful competition for grants, receipt of special honors or awards, a record of publications, receipt of patents, promotion to scientific positions, and any other measures of success consistent with the nature and duration of the training received. For HSAT program only, did the trainees successfully complete the required 40-hour hazardous waste operations training course? (For competing continuation applications only.)

- APPROACH: The adequacy of the curriculum content and design, the formal training objectives, and the plans to meet the professional needs. Is the course content adequate to achieve the proposed degree? Are the courses, course sequence, time devoted to lecture, laboratory, and field experience, and the nature of specific field and clinical experiences including their relationships with didactic programs consistent with a high quality, innovative program? Is there evidence of the integration of research experience into the curriculum, and field and clinical experiences? How well does this program integrate with and complement other academic programs in the ERC? Is there adequate consideration of requirements for information dissemination and special industrial, labor or community training needs that may be peculiar to the region? Is it likely that the academic training program can achieve the targeted enrollment? How adequate is the plan for tracking the careers of trainees? For HSAT, does the program require the successful completion of a 40-hour hazardous waste operations training course either during or prior to enrollment.
- INNOVATION: The degree of innovation of the program. Does the academic program involve new and innovative approaches to training and education relevant to the occupational safety and health field?
- ENVIRONMENT: Quality, sufficiency, and multidisciplinary character of the training and research environment, evidence of an Institutional commitment to the program goals, the relationship of this program to the broader ERC program, and a record of success in obtaining outside support to supplement the academic program such as other federal grants, support from states and other public agencies, and support from the private sector.
- TRAINING STAFF: The qualifications of the Program Director and faculty in delivering academic and/or short course training in the proposed field. For doctoral and post-doctoral training programs, the accomplishments of the teaching staff and mentors as research investigators in occupational safety and health as evidenced by peer-reviewed publications and research grant support.
- CANDIDATES: The quality of the recruitment pool, the adequacy of plans for recruiting trainees from this pool in the proposed academic area, and the adequacy of plans for recruiting candidates from underrepresented groups.

REVIEW CRITERIA FOR CONTINUING EDUCATION TRAINING PROGRAM

(Also applies to Hazardous Substance Continuing Education Program, if proposed)

- SIGNIFICANCE: The potential impact of the continuing education (CE) program in meeting the regional and national needs for occupational safety and health training. Did the applicant provide evidence the proposed training is appropriate and responsive to the regional and national needs? Did the applicant consider the work of other providers involved in CE? Did the applicant provide evidence the training is addressing a need?

- PAST PERFORMANCE: The adequacy of the record of the program in the continuing training of occupational health practitioners as evidenced by numbers of trainees, the degree of representation of the core occupational health professions, and the quality and breadth of the completed courses. (For competing continuation applications only.)
- APPROACH: The adequacy of course content and design, the formal training objectives, and the plans to meet the needs of occupational safety and health practitioners. Is the program overall well designed and does it meet contemporary educational standards for a CE program? Has appropriate consideration been given to other occupational health and safety CE programs in the region served by the ERC and how the proposed program relates to them and to the larger needs of the practitioner community? With respect to a Hazardous Substance CE program, has appropriate consideration been given to the work of relevant agencies involved in hazardous substance activities and to coordinating the proposed program with these agencies? Has an effective marketing plan for these courses been proposed? Is public sector trainee support proposed for the Hazardous Substance Training Program?
- INNOVATION: The degree of innovation of the program. Does the ERC propose new and innovative programs and approaches to training and education relevant to the occupational safety and health field? In particular, does the plan include new and innovative training technologies for availability and delivery such as web-based distance learning programs and intensive short-term programs?
- ENVIRONMENT: Quality and sufficiency of the facilities and equipment for the CE program.
- TRAINING STAFF: The qualifications of the director and staff with respect to expertise in occupational safety and health and in developing, managing, and evaluating a CE program.
- CANDIDATES: The adequacy of plans for recruiting practitioners including from underrepresented groups.

REVIEW CRITERIA FOR TARGETED RESEARCH TRAINING PROJECTS

- SIGNIFICANCE: The potential impact of the program in meeting NORA and training goals. Does the applicant provide evidence that the proposed project is closely related to NORA subject areas and objectives? If successful, can the project significantly impact the NORA and also advance the training of students?
- APPROACH: Does the plan adequately detail the approaches and mechanisms that will be used to carry out the proposed project? Is the role of the trainees in the project adequately described?
- INNOVATION: The degree of innovation of the project. Does the proposed project involve new and innovative approaches to research training, or to translation of research to practice, relevant to the occupational safety and health field?

- ENVIRONMENT: The quality, sufficiency, and multidisciplinary character of the research training or research to practice environment and evidence of an Institutional commitment to the project goals.
- INVESTIGATORS: The professional qualifications of the investigators to carry out this work as evidenced by their training and research records. Do the investigators have track records of outside support and do they have experience in providing research training? For research training projects and research to practice projects, do the investigators have education and experience appropriate to these areas?

2.A. Additional Review Criteria:

In addition to the above criteria, the following items will continue to be considered in the determination of scientific merit and the priority score:

Protection of Human Subjects from Research Risk: The involvement of human subjects and protections from research risk relating to their participation in the proposed research will be assessed (see the Research Plan, Section E on Human Subjects in the PHS Form 398).

Inclusion of Women, Minorities and Children in Research: The adequacy of plans to include subjects from both genders, all racial and ethnic groups (and subgroups), and children as appropriate for the scientific goals of the research will be assessed. Plans for the recruitment and retention of subjects will also be evaluated (see the Research Plan, Section E on Human Subjects in the PHS Form 398).

Care and Use of Vertebrate Animals in Research: If vertebrate animals are to be used in the project, the five items described under Section F of the PHS Form 398 research grant application instructions will be assessed.

Biohazards: If materials or procedures are proposed that are potentially hazardous to research personnel and/or the environment, determine if the proposed protection is adequate.

2.B. Additional Review Considerations

o Minority Recruitment and Retention Plan:
NIOSH remains committed to increasing the participation of individuals from underrepresented minority groups in occupational safety and health research and practice. All competing applications for institutional training grants must include a specific plan to recruit and retain underrepresented groups in the training program. In addition, all competing continuation applications must include a report on the recruitment and retention of underrepresented groups during the previous award period. If an application is received without a plan or without a report on the previous award period, the application will be considered

incomplete and will be returned to the applicant without review. NIOSH follows the NIH requirements which were published in the NIH Guide for Grants and Contracts, Volume 22, Number 25, July 16, 1993 (see http://grants.nih.gov/grants/guide/notice-files/not93-188.html).

Competing continuation and non-competing applications must include a detailed account of experiences in recruiting individuals from underrepresented groups during the previous funding period. Information must be included on successful and unsuccessful recruitment strategies. The report should provide information on the racial/ethnic distribution of:

Students who applied for admission within the department(s) relative to the training grant,
Students who were offered admission to or a position within the department(s),
Students actually enrolled in the academic program relevant to the training grant,
Students who were appointed to the training grant.
For those trainees who were enrolled in the whether the trainees finished their training.

The success of efforts to recruit and retain minority trainees is a factor in the assessment of the quality of the trainee pool and thus will be included within the priority score. In addition, peer reviewers will separately evaluate the minority recruitment plan and report (for competing renewals) after the overall score has been determined. Reviewers will examine the strategies to be used in the recruitment of minorities and whether the experience in recruitment during the previous award period has been incorporated into the formulation of the plan for the next award period. The review panel's evaluation will be included in an administrative note in the summary statement. If the plan or the record of minority recruitment and retention is judged to be unacceptable, funding will be withheld until a revised plan (and report) that addresses the deficiencies is received. Staff within the NIOSH, with guidance from the NIOSH Secondary Review Committee, will determine whether amended plans and reports submitted after the initial review are acceptable.

o Training in the Responsible Conduct of Research:
Every pre-doctoral and Masters (if research) trainee supported by an institutional training grant must receive instruction in the responsible conduct of research. (NIOSH follows the NIH policies for this requirement, see the NIH Guide for Grants and Contracts, Volume 21, Number 43, November 27, 1992, and see http://grants.nih.gov/grants/guide/notice-files/not92-236.html).

Applications must include a description of a program to provide formal or informal instruction in scientific integrity or the responsible conduct of research. Applications without plans for instruction in the responsible conduct of research will be considered incomplete and will be returned to the applicant without review.

Although the NIH and NIOSH do not establish specific curricula or formal requirements, all programs are encouraged to consider instruction in the following areas: conflict of interest, responsible authorship, policies for handling misconduct, data management, data sharing, and policies regarding the use of human and animal subjects. Within the context of training in scientific integrity, it is also beneficial to discuss the relationship and the specific responsibilities of the institution and the graduate students appointed to the program.

Plans must address the subject matter of the instruction, the format of the instruction, the degree of faculty participation, trainee attendance, and the frequency of instruction. The rationale for the proposed plan of instruction must be provided.
Program reports on the type of instruction provided, topics covered, and other relevant information, such as attendance by trainees and faculty participation, must be included in future competing continuation and non-competing applications. The NIOSH encourages institutions to provide instruction in the responsible conduct of research to all graduate students, and research staff regardless of their source of support.

NIOSH initial review group will assess the applicant's plans on the basis of the appropriateness of topics, format, amount and nature of faculty participation, and the frequency and duration of instruction. The plan will be discussed after the overall determination of merit, so that the review panel's evaluation of the plan will not be a factor in the determination of the priority score. Plans will be judged as acceptable or unacceptable. The acceptability of the plan will be described in an administrative note on the summary statement. Regardless of the priority score, applications with unacceptable plans will not be funded until the applicant provides a revised, acceptable plan. NIOSH Staff will judge the acceptability of the revised plan.

Following initial review, the NIOSH Secondary Review Committee will consider the assessment of the scientific and educational merit of the research training grant application as well as the initial review group's comments on the recruitment of individuals from underrepresented groups and the plan for instruction in the responsible conduct of research.

o Budget: The reasonableness of the proposed budget and the requested period of support in relation to the proposed programs. The priority score should not be affected by the evaluation of the budget.

2.C. Sharing Research Data

Not Applicable.

2.D. Sharing Research Resources

Not applicable.

3. Anticipated Announcement and Award Dates

Not Applicable.

Section VI. Award Administration Information

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1. Award Notices

After the peer review of the application is completed, the Center Director will receive a written critique called a Summary Statement.

If the application is under consideration for funding, NIOSH may request "just-in-time" information from the applicant. For details, applicants may refer to the NIH Grants Policy Statement Part II: Terms and Conditions of NIH Grant Awards, Subpart A: General (http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_part4.htm).

If the application is selected for funding, a formal notification in the form of a Notice of Grant Award (NGA) will be provided to the applicant organization. The NGA signed by the grants management officer is the authorizing document.

Selection of an application for award is not an authorization to begin performance. Any costs incurred before receipt of the NGA are at the recipient's risk. These costs may be reimbursed only to the extent considered allowable pre-award costs.

The NGA will be mailed or emailed to the Center Director and business official named on the application.

2. Administrative and National Policy Requirements

All NIOSH grant and cooperative agreement awards include the PHS Grants Policy Statement as part of the notice of grant award. Additional guidance may be found at NIH Grants Policy Statement in Part II: Terms and Conditions of NIH Grant Awards.

3. Reporting

Awardees will be required to submit the PHS Non-Competing Grant Progress Report, Form 2590 annually (http://grants.nih.gov/grants/funding/2590/2590.htm) and financial statements as required in the NIH Grants Policy Statement.

Additionally, an Annual Summary Center Report is due on October 1 following each budget period. The report should focus on major accomplishments/highlights in program areas including the impact of ERC programs within the applicable DHHS Region. The report should not exceed three pages in a format suitable for posting on the NIOSH web site and for use in informing the Congress, public, and others of significant ERC activities.

Section VII. Agency Contacts

We encourage your inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants. Inquiries may fall into three areas: scientific/research, peer review, and financial or grants management issues:

1. Scientific/Research Contacts:

John Talty, MS, P.E.
Office of Extramural Programs
National Institute for Occupational Safety and Health
4676 Columbia Parkway, Mail stop C- 7
Cincinnati, OH 45226-1998
Telephone: (513) 533-8241
FAX: (513) 533-8564
Email: jtt2@cdc.gov

2. Peer Review Contacts:

Chris Langub, Ph.D.
Scientific Review Administrator
Office of Extramural Programs
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
1600 Clifton Road, N.E., Mailstop E74

Atlanta, GA 30333
Telephone: (404) 498-2543
FAX: (404) 498-2571
Email: CLangub@cdc.gov

Overnight Mail Address:

2400 Century Parkway NE (4th Floor)
Atlanta GA 30345-3114

3. Financial or Grants Management Contacts:

Mary Pat Shanahan
Grants Management Branch, Procurement and Grants Office
Centers for Disease Control and Prevention
626 Cochrans Mill Road
Pittsburgh, Pennsylvania 15236-0070
Telephone: (412) 386-4453
FAX: (412) 386-6459
Email: mpu0@cdc.gov

Section VIII. Other Information

Required Federal Citations

Authority and Regulations:

This program is described in the Catalog of Federal Domestic Assistance at http://www.cfda.gov/ and is not subject to the intergovernmental review requirements of Executive Order 12372 or Health Systems Agency review. Awards are made under the authorization of Section 670 (a) of the Occupational Safety and Health Act [29 U.S.C. 670(a)] and under Federal Regulations 42 CFR 52 and 45 CFR Parts 74 and 92. All awards are subject to the terms and conditions, cost principles, and other considerations described in the NIH Grants Policy Statement. The NIH Grants Policy Statement can be found at http://grants.nih.gov/grants/policy/policy.htm.

Use of Animals in Research:

Recipients of PHS support for activated involving live, vertebrate animals must comply with PHS Policy on Humane Care and Use of Laboratory Animals

(http://grants.nih.gov/grants/olaw/references/PHSPolicyLabAnimals.pdf) as mandated by the Health Research Extension Act of 1985 (http://grants.nih.gov/grants/olaw/references/hrea1985.htm), and the USDA Animal Welfare Regulations (http://www.nal.usda.gov/awic/legislat/usdaleg1.htm) as applicable.

Human Subjects Protection:

Federal regulations (45CFR46) require that applications and proposals involving human subjects must be evaluated with reference to the risks to the subjects, the adequacy of protection against these risks, the potential benefits of the research to the subjects and others, and the importance of the knowledge gained or to be gained (http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm).

Inclusion of Women and Minorities in Clinical Research:

It is the policy of the NIH that women and members of minority groups and their sub-populations must be included in all NIH-supported clinical research projects unless a clear and compelling justification is provided indicating that inclusion is inappropriate with respect to the health of the subjects or the purpose of the research. This policy results from the NIH Revitalization Act of 1993 (Section 492B of Public Law 103-43). All investigators proposing clinical research should read the "NIH Guidelines for Inclusion of Women and Minorities as Subjects in Clinical Research (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-001.html); a complete copy of the updated Guidelines is available at http://grants.nih.gov/grants/funding/women_min/guidelines_amended_10_2001.htm. The amended policy incorporates: the use of an NIH definition of clinical research; updated racial and ethnic categories in compliance with the new OMB standards; clarification of language governing NIH-defined Phase III clinical trials consistent with the new PHS Form 398; and updated roles and responsibilities of NIH staff and the extramural community. The policy continues to require for all NIH-defined Phase III clinical trials that: a) all applications or proposals and/or protocols must provide a description of plans to conduct analyses, as appropriate, to address differences by sex/gender and/or racial/ethnic groups, including subgroups if applicable; and b) investigators must report annual accrual and progress in conducting analyses, as appropriate, by sex/gender and/or racial/ethnic group differences.

Inclusion of Children as Participants in Clinical Research:

The NIH maintains a policy that children (i.e., individuals under the age of 21) must be included in all clinical research, conducted or supported by the NIH, unless there are scientific and ethical reasons not to include them. All investigators proposing research involving human subjects should read the "NIH Policy and Guidelines" on the inclusion of children as participants in research involving human subjects (http://grants.nih.gov/grants/funding/children/children.htm).

Required Education on the Protection of Human Subject Participants:

NIH policy requires education on the protection of human subject participants for all investigators submitting NIH applications for research involving human subjects and individuals designated as key

personnel. The policy is available at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-039.html.

Human Embryonic Stem Cells (hESC):

Criteria for federal funding of research on hESCs can be found at http://stemcells.nih.gov/index.asp and at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-005.html. Only research using hESC lines that are registered in the NIH Human Embryonic Stem Cell Registry will be eligible for Federal funding (http://escr.nih.gov/). It is the responsibility of the applicant to provide in the project description and elsewhere in the application as appropriate, the official NIH identifier(s) for the hESC line(s) to be used in the proposed research. Applications that do not provide this information will be returned without review.

Public Access to Research Data through the Freedom of Information Act:

The Office of Management and Budget (OMB) Circular A-110 has been revised to provide public access to research data through the Freedom of Information Act (FOIA) under some circumstances. Data that are (1) first produced in a project that is supported in whole or in part with Federal funds and (2) cited publicly and officially by a Federal agency in support of an action that has the force and effect of law (i.e., a regulation) may be accessed through FOIA. It is important for applicants to understand the basic scope of this amendment. NIH has provided guidance at http://grants.nih.gov/grants/policy/a110/a110_guidance_dec1999.htm. Applicants may wish to place data collected under this PA in a public archive, which can provide protections for the data and manage the distribution for an indefinite period of time. If so, the application should include a description of the archiving plan in the study design and include information about this in the budget justification section of the application. In addition, applicants should think about how to structure informed consent statements and other human subjects procedures given the potential for wider use of data collected under this award.

Standards for Privacy of Individually Identifiable Health Information:

The Department of Health and Human Services (DHHS) issued final modification to the "Standards for Privacy of Individually Identifiable Health Information", the "Privacy Rule", on August 14, 2002. The Privacy Rule is a federal regulation under the Health Insurance Portability and Accountability Act (HIPAA) of 1996 that governs the protection of individually identifiable health information, and is administered and enforced by the DHHS Office for Civil Rights (OCR).

Decisions about applicability and implementation of the Privacy Rule reside with the researcher and his/her institution. The OCR website (http://www.hhs.gov/ocr/) provides information on the Privacy Rule, including a complete Regulation Text and a set of decision tools on "Am I a covered entity?" Information on the impact of the HIPAA Privacy Rule on NIH processes involving the review, funding, and progress monitoring of grants, cooperative agreements, and research contracts can be found at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-025.html.

URLs in NIH Grant Applications or Appendices:

All applications and proposals for NIH funding must be self-contained within specified page limitations. For publications listed in the appendix and/or Progress report, internet addresses (URLs) must be used for publicly accessible on-line journal articles. Unless otherwise specified in this solicitation, Internet addresses (URLs) should not be used to provide any other information necessary for the review because reviewers are under no obligation to view the Internet sites. Furthermore, we caution reviewers that their anonymity may be compromised when they directly access an Internet site.

Healthy People 2010:

The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of "Healthy People 2010," a PHS-led national activity for setting priority areas. This PA is related to one or more of the priority areas. Potential applicants may obtain a copy of "Healthy People 2010" at http://www.health.gov/healthypeople.

Smoke-Free Workplace:

The PHS strongly encourages all grant recipients to provide a smoke-free workplace and discourage the use of all tobacco products. In addition, Public Law 103-227, the Pro-Children Act of 1994, prohibits smoking in certain facilities (or in some cases, any portion of a facility) in which regular or routine education, library, day care, health care, or early childhood development services are provided to children. This is consistent with the PHS mission to protect and advance the physical and mental health of the American people.

Lobbying Restrictions:

Applicants should be aware of restrictions on the use of Health and Human Services (DHHS) funds for lobbying of Federal or State legislative bodies. Under the provisions of 31 U.S.C. Section 1352,

recipients (and their subtier contractors) are prohibited from using appropriated Federal funds (other than profits from a Federal contract) for lobbying congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement, or loan. This includes grants/cooperative agreements that, in whole or in part, involve conferences for which Federal funds cannot be used directly or indirectly to encourage participants to lobby or to instruct participants on how to lobby.

In addition, no part of the Center for Disease Control and Prevention (CDC) appropriated funds shall be used, other than for normal and recognized executive-legislative relationships, for publicity or propaganda purposes, for the preparation, distribution, or use of any kit, pamphlet, booklet, publication, radio, television, or video presentation designed to support or defeat legislation pending before the Congress or any State or local legislature, except in presentation to the Congress or any State or local legislature

itself. No part of the appropriated funds shall be used to pay the salary or expenses of any grant or contract recipient, or agent acting for such recipient, related to any activity designed to influence legislation or appropriations pending before the Congress or any State or local legislature.

Any activity designed to influence action in regard to a particular piece of pending legislation would be considered “lobbying.” That is lobbying for or against pending legislation, as well as indirect or “grass roots: lobbying efforts by award recipients that are directed at inducing members of the public to contact their elected representatives at the Federal or State levels to urge support of, or opposition to, pending legislative proposals is prohibited. As a matter of policy, CDC extends the prohibitions to lobbying

with respect to local legislation and local legislative bodies.

The provisions are not intended to prohibit all interaction with the legislative branch, or to prohibit educational efforts pertaining to public health. Clearly there are circumstances when it is advisable and permissible to provide information to the legislative branch in order to foster implementation of prevention strategies to promote public health. However, it would not be permissible to influence, directly or indirectly, a specific piece of pending legislation.

It remains permissible to use CDC funds to engage in activity to enhance prevention; collect and analyze data; publish and disseminate results of research and surveillance data; implement prevention strategies; conduct community outreach services; provide leadership and training; and foster safe and healthy environments.

Recipients of CDC grants and cooperative agreements need to be careful to prevent CDC funds from being used to influence or promote pending legislation. With respect to conferences, public events, publication, and “grassroots” activities that relate to specific legislation, recipients of CDC funds should give attention to isolating and separating the appropriate use of CDC funds from non-CDC funds. CDC also cautions recipients of CDC funds to be careful not to give the appearance that CDC funds are being used to carry out activities in a manner that is prohibited under Federal law.