

Integrated Pest Management in the Indoor Environment: Principles and Practice

National Healthy Homes Training Center and Network Training Proposal for Consideration by Curriculum Committee

- A. *Proposed Name of Course:* **Integrated Pest Management in the Indoor Environment: Principles and Practice (one-day IPM training)**
- B. *Contact Information for Person(s) Making Proposal:*
**Pat Hynes, Boston University School of Public Health
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- C. *Is this a proposal to pilot a training course or to finalize a training course that has already been piloted? If it is a proposal to pilot a course, you do not need to provide a copy of the course materials.* **This is a proposal for approval of a new course which was piloted on November 20-21, 2006, in Boston, MA, and which is scheduled to be offered on December 11, 2006, in Northampton, MA.**
- D. *Who are the anticipated trainers for the course and what is their relevant experience?*
- **Don Rivard, Lisa Rivard: Rivard's Resources, Environmental Management Consultants**
 - **Pat Hynes: Professor, BU School of Public Health, Center for Healthy Homes and Neighborhoods**
 - **Jody Lally: Program Associate, BUSPH Center for Healthy Homes and Neighborhoods**
- E. *Has this course been offered previously? If yes, explain when and where it was offered and how the course went.* **This course was first offered as a pilot on November 20-21, 2006 (two half-days). (See C. above). A companion course to this one has been offered as a two-day 16 hour training last year. However, it had a minimal amount of skills-building in pest inspection, pest exclusion methods and IPM materials. This course provides more in-depth and hands-on learning regarding inspection, sanitation, exclusion, and IPM safer chemicals.**
- F. *How long will the course be?* **The course will be a one-day training or the equivalent over 2 class meetings.**
- G. *What is the minimum and maximum class size?* **Between 20 and 30.**
- H. *What is the anticipated schedule, if any, to offer the courses?*
- **November 20-21, 2006, Committee for Boston Public Housing, Boston, MA**
 - **December 11, 2006, Western Massachusetts Public Health Association, Northampton, MA**
- I. *Provide the context in which the course will be offered. Who will host the course? How will it be promoted?* **The course will be offered in conjunction with partner organizations as listed above for the 2 planned training dates. They will host the course and recruit their members to attend. We will provide promotional materials for them to tailor to their needs.**

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- J. *Who is the target audience for the course? Are there any significant secondary audiences? The target audience for the first pilot training included Boston-based community housing activists and public housing residents who are working as community health/IPM advocates in an IPM demonstration program in Boston Public Housing.*

A secondary audience was the Boston Urban Asthma Coalition, a grassroots organization working on healthy housing with asthmatic families. Also attending the training was a Salvation Army community center director, with responsibility for their daycare center.

The target audience for the second training is local public health professionals in western Massachusetts.

- K. *Provide an agenda for the course*
Please see course agenda on page 3.

- L. *Describe the course materials for the course? If seeking final approval for the course, attach a copy of the course materials. Please list on page 4.*

- M. *What are the specific learning objectives for the course?*
- 1. Become familiar with a model of pest control, integrated pest management (IPM) that involves residents, pest control operators, and housing development managers as a team to control pests and reduce pesticide use.**
 - 2. Identify the components of a state-of-the art IPM program, including inspection, sanitation, exclusion, and treatment and the corresponding elements of an IPM contract.**
 - 3. Gain general knowledge about the biology, habits and survival requirements of the most common indoor pests, including mice, cockroaches and bedbugs.**
 - 4. Acquire knowledge and skills that will allow independent ability to inspect homes for pest activity, assess problem conditions and recommend correction that includes sanitation, exclusion techniques, and safer chemicals, where necessary.**
 - 5. Become aware of the role of resident and management in sanitation and repair to prevent pest infestation.**
 - 6. Identify safer chemicals and bait stations used in IPM and the reasons they are used.**
 - 7. Learn the common health effects of exposure to pests, pesticides and harmful cleaning agents.**
 - 8. Learn about the provisions of the state pest control law that pertain to owners and managers of single and multifamily buildings.**

- N. *How will the trainers evaluate the quality of the course and the knowledge/skills gained by trainees?*

- **Pre- and post-test**
- **Course evaluation related to the learning objectives**
- **Feedback from participants in end-of-course discussion**

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Typical Agenda

Morning session:

- 8:30 Registration and pre-Questionnaire Completion
- 9:00 Welcome and Introduction
- 9:10 Integrated Pest Management (IPM) vs. Traditional Pest Control
- a) Why the shift to IPM?
 - b) Define IPM
 - c) Basic Requirements for Pests: Food, Water and Shelter
 - d) Compare, Contrast IPM with Traditional Pest Control
 - e) Floor Plan Exercise
- 10:10 *Break*
- 10:20 Pest Identification
- a) Rats & Mice: Visual Recognition; Biology and Behavior
 - b) Cockroaches: Visual Recognition; Biology and Behavior
 - c) Bedbugs, Ants & Other Insect Pests: Visual Recognition; Biology and Behavior
- 11:05 Health Effects of Pest, Pesticides and Harmful Cleaning Agents
- 11:35 Federal, State and Local Pesticide Laws
- 12:00 Model IPM Contract
- 12:15 *Lunch Buffet*

Afternoon session:

- 1:00 Introduction to Afternoon “Hands On” Sessions on Applying IPM in Indoor Environments
- 1:10 “Hands On” Workshops – Two Groups Rotating at 25 minutes each exercise
- Inspection and Maintenance
 - Trapping and Pesticides
 - Sanitation and Cleaning
 - Exclusion and Barriers
- 2:50 *Break*
- 3:00 Video: “Cockroaches and Baiting in Public Housing”
- 3:15 Evaluation; post-Questionnaire completion
- 3:30 Questions and Discussion
- 4:00 *Adjourn*

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MATERIALS LIST: HANDS-ON WORKSHOPS (FOR DEMONSTRATIONS):

Inspections & monitoring workshop:

- Good flashlight with fresh batteries,
- Extension mirror,
- Multi-tool (screw drivers, pliers, sharp blade),
- Scraper,
- Pest monitors,
- Pens, pencils and clipboards, etc.

Trapping and pesticides workshop:

- Rodent traps (examples of different types)
- Tamper-resistant bait boxes
- Anticoagulant Baits
- Tracking Powders
- Floor plans
- Insecticides and Formulations (examples of different types)

Cleaning and Sanitation workshop:

- HEPA vac
- Vinegar
- Baking/washing soda
- Bucket
- Rags

Exclusion and barriers workshop:

- Tape
- Foam with applicator
- Caulk with applicator
- Putty
- Doorsweep
- Pipe collars
- Kids Garden Tools
- Screwdriver and Pliers
- Flashlights
- HEPA Vac

MATERIALS LIST: HANDOUTS

- Agenda
- Brief description of training, sponsors and trainers
- Copy of Don's overheads (What is IPM? Pest Identification)
- Copy of Pat's PowerPoint (Health Effects; Pesticide Law)
- Description of hands on workshops
- Handout on safe cleaning
- Handout on rodent cleanup
- Leaflet on "Information about Bedbugs"
- Sticky traps
- Sample floor plan
- Graph paper for drawing floor plan (homework)
- Pre- and post questionnaire (2 copies)
- Evaluation form
- EPA booklet on "Safe Control: Using IPM in Your Neighborhood"
- Certificate of Completion

OTHER SUPPLIES

- Folders for handouts
- Labels for folders
- Sign-in sheets
- Nametags
- Non-toxic markers