Office of Environmental Engineering and Technology Washington DC 20460 X

Research and Development

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Project Summary

Inventory of Current Indoor Air Quality-Related Research

C. Beat Meyer and Robert P. Hartley

The Inventory lists a total of 171 current or recently completed projects relating to indoor air quality. It covers six specific areas of research: monitoring, instrumentation, health effects, control technology, risk assessment and pollutant characterization. It is cross-referenced to the following pollutant groups: radon, nitrogen oxides, carbon monoxide, formaldehyde, asbestos, respirable particulates, organics, tobacco smoke, odor, ozone, biological pollutants, and multi-pollutant studies. Information provided for each project includes the name of the principal investigator, project sponsor, funding level and

The Inventory is designed to be a useful tool for researchers in the field of indoor air pollution and for analysts, architects, builders and administrators who need to understand the problem, as well as possible solutions. Among other things, the document identifies experts who can advise the building industry on any indoor air quality topic under study.

This Project Summary was developed by EPA's Office of Environmental Engineering and Technology, Washington, DC, to announce the full indoor air quality Inventory report (see Project Report ordering information at back).

Introduction

Indoor air pollution has gained increased attention from both researchers and officials in government, as well as in the private sector, in the past few years. Americans spend 75-90 percent of their time indoors where they are frequently exposed to significant concentrations of a variety of pollutants.

Pollutants of major concern include radon and radon progency, formaldehyde and other organics, particulates, carbon monoxide, nitrogen dioxide, asbestos and airborne bacteria, viruses, fungi and molds. For some of the pollutants, indoor exposures are significantly greater than outdoor exposures. In some cases, indoor air quality problems may be aggravated by energy conservation measures, such as reduced ventilation, unless mitigating measures are taken.

An Inventory has been prepared under the auspices of the Interagency Research Group on Indoor Air Quality as a part of its development of a "Plan for a National Program on Indoor Air Research." The Inventory documents work under way or recently completed. The Interagency Research Group includes representatives of the following federal agencies: Department of Energy, Environmental Protection Agency, National Institute for Occupational Safety and Health, Consumer Product Safety Commission, National Institute for Environmental Health Sciences, Department of Housing and Urban Development, the Department of Commerce-National Bureau of Standards, and the Department of Defense.

Information in the Inventory was gathered in an intensive solicitation effort by Dr. C. Beat Meyer, Professor of Chemistry at the University of Washington, while on assignment to EPA's Industrial Environmental Research Laboratory, Cincinnati, Ohio. The solicitation included telephone inquires to persons known to be performing research on the subject, as well as written requests for information. Projects included in the Inventory are, with some exceptions, presented exactly as they were described by the responsible



researchers. Some project descriptions were shortened to fit a standard format.

The Inventory is in three parts:

- 1) A list of abbreviations found throughout the document.
- 2) An index/summary of the Inventory. This section summarizes all of the inventoried projects and includes a matrix to enable users to identify classes of pollutants and technical disciplines to which each project applies.
- Project description sheets which make up the bulk of the document. They contain all of the information provided by the researchers.

It is expected that the Inventory is not complete, although every effort was made to identify all related work. Researchers are invited to submit additional entries, which will be included in periodic updates. Updating information should be sent to:

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David Berg is the EPA Project Officer (see below).

The complete report, entitled "Inventory of Current Indoor Air Quality-Related Research," (Order No. PB 82-127 952; Cost: \$16.50, subject to change) will be available only from:

National Technical Information Service 5285 Port Royal Road Springfield, VA 22161 Telephone: 703-487-4650

The EPA Project Officer can be contacted at:
Office of Environmental Engineering and Technology
U.S. Environmental Protection Agency (RD-681)
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