



Research & Development Highlights

Technical Series
90-208

Housing for the Environmentally Hypersensitive: A Survey and Examples of Clean-air Housing in Canada

Introduction

A small minority of people are disabled by the syndrome known by various terms but most generically known as Environmental Hypersensitivity Disorder. Because sufferers often require an extremely clean, pollution-free environment to help relieve their ailment they have very stringent housing needs. Their lifestyle, furnishings and indoor environment must be conducive to maintaining an extremely clean living atmosphere.

Based on a survey and detailed case histories, the study provides a profile of new and renovated houses for this group of people.

Research Program

The Canada-wide survey investigated 92 cases, from 200 replies received in response to a request for hypersensitive people or their parents to contact the researchers. This group completed a lengthy questionnaire—principally about their house or apartment, but also including elementary questions regarding their health.

Findings

- Seventy-four per cent of respondents reported “considerable” or a “great deal” of relief after a change in their indoor environment.
- In new construction (sample size: 27) specific features of the houses were:
 - 74 per cent installed all electric heating;
 - 19 per cent isolated the combustion boiler;
 - 85 per cent installed ceramic or hardwood floors;
 - 63 per cent fitted custom cabinets;
 - 48 per cent avoided plywood and composition boards;
 - 44 per cent installed ventilation and air filtration systems;
 - 33 per cent installed ventilation systems only; and
 - 22 per cent used plaster or solid wood interior finishes.

- In renovations (sample size: 48) specific features of the houses were:
 - 71 per cent changed the heating system;
 - 67 per cent changed flooring;
 - 52 per cent used portable central air cleaners;
 - 46 per cent changed cabinets and furniture; and
 - 17 per cent used a central ventilation system.
- The remainder of houses (sample size: 17) were cases where families or individuals had moved to another existing house or apartment.

Implications for the Housing Industry

- There is a sufficient number and long enough tenure of “clean” houses to provide house design guidelines based on experience.
- There is scope for the development of non-off-gassing building materials, especially interior wall materials.
- Experience gleaned from coping with the exacting requirements of the environmentally hypersensitive will in the long term be beneficial to all housing.

Contents of Report

The report describes the nature of hypersensitivity, what is in houses that exacerbates the problem and how the research was conducted. It also provides 10 detailed cases that show how individuals have built or renovated houses to meet their particular needs.

A listing of suppliers of special building products is included.

For more information, see Research & Development Highlight 90-210: *Survey of the Medical Impact on Environmentally Hypersensitive People of a Change in Habitat*.

Project Manager: Peter Russell

Research Report: Housing for the Environmentally Hypersensitive: A Survey and Examples of Clean-air Housing in Canada (1990)

Research Consultants: Drerup, Mattock, Rousseau, Salares

A full report on this research project is available from the Canadian Housing Information Centre at the address below.

Housing Research at CMHC

Under Part IX of the National Housing Act, the Government of Canada provides funds to CMHC to conduct research into the social, economic and technical aspects of housing and related fields, and to undertake the publishing and distribution of the results of this research.

This factsheet is one of a series intended to inform you of the nature and scope of CMHC's technical research program.

This Research and Development Highlights factsheet is one of a wide variety of housing-related publications produced by CMHC.

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