

Highlights

from A&WMA's International Conference on Indoor Air Quality/Healthy Indoor Environment, Vancouver, British Columbia, September 28-30, 2003

by Steve Hart, Elia Sterling, and Vic Niemela

Last September, A&WMA, in cooperation with the Healthy Indoor Partnership (HIP) of Canada—a newly formed, public-private partnership established to provide solutions to indoor air problems and improve indoor health across Canada through education, research, and the development of guidelines for best practices—held an international conference on indoor air quality (IAQ) in Vancouver, British Columbia, Canada. The conference, which focused on Canadian and U.S. policies that drive IAQ initiatives, was divided into four main sessions covering research, education, policy, and best management practices; toxic mold and biological hazards; guidelines and regulations; and design, construction, and operation of healthy sustainable buildings. Held at the Renaissance Harbourside Hotel in Vancouver, the event was cosponsored by Canada Central Mortgage and Housing Corporation, National Air Technologies, Worker's Compensation Board of British Columbia, Greater Vancouver Regional District, Public Works and Government Services of Canada, Health Canada, the Canadian Lung Association, and Theodor Sterling Associates Ltd.

KEYNOTE ADDRESS

Craig Jobber, chairman and chief executive officer of HIP, officially opened the conference and introduced keynote speaker Paul Glover, director general of safe environments for the Healthy Environment and Consumer Safety Branch of Health Canada. Glover stated that maintaining healthy indoor air is critical to human health, since people typically spend the majority of their time indoors. He said Health Canada is very interested in IAQ work and that regulators are currently reviewing the regulatory role for IAQ under the Canadian Environmental Protection Act (CEPA). In addition, Glover stated that the public is becoming increasingly interested in the topic of healthy indoor air and that recent public health concerns, such as SARS and the West Nile Virus, have placed increased pressure on public health regulatory bodies.

SESSIONS OVERVIEW

The conference's opening session on "Developing IAQ Research, Education, Policy, and Best Practices in Canada through the

Healthy Indoor Partnership" was led by Ian Morton, chief operating officer of HIP, who discussed the increasing public interest in IAQ-related issues. He acknowledged that some government initiatives, such as the U.S. Environmental Protection Agency's (EPA) Healthy Homes Initiative, are helping to disseminate information. However, Morton felt that governments are no longer the prime agents for dealing with IAQ problems. He advocated enhanced information sharing among the various groups and agencies that deal directly with this issue. Other highlights from this session included an overview of the role of Health Canada's Indoor Environments Division and the cooperative work it is supporting with the Canadian Center for Occupational Health and Safety by Division Chief Sam Kassam; an account of the challenges in getting a common understanding of IAQ problems and in reaching agreement on best practice solutions among the different disciplines by James Robar, manager of housing technology at Canada Central Mortgage and Housing Corporation; and an update on IAQ priority issues in Canada, which will be addressed through the development of best practices and guidelines, by Elia Sterling, president of Theodor Sterling Associates Ltd. and chair of the HIP Best Practices/Guidelines Committee. In particular, Sterling noted that EPA now considers IAQ one of the most significant potential human health issues. He also acknowledged the work being done by the Building Owners and Managers Association of Canada through the Go Green Program and by the Canada Green Buildings Council through the Leadership in Energy and Environmental Design Canada Certification program.

The presentations were followed by a question-and-answer session. Questions from the audience concerned the U.S. and Canadian governments' positions and activities on standards and criteria for assessment of IAQ issues; the relationship between asthma and mold, moisture, and other indoor pollutants; links between outdoor and indoor air quality; and finding scientific information on both the issue and available control equipment. Following this session, Sam Sullivan, deputy mayor of the City of Vancouver, provided a very entertaining and informative luncheon discussion on the history of Vancouver

and its continuing efforts to "green" the city.

Michael Glassco, operations manager for Theodor Sterling Associates, opened the second session on "Toxic Mold and Biological Hazards" by describing current investigation and remediation methods for finding mold in buildings. He described some of the commonly used methods for visual inspections, air sampling, and remediation. Glassco's presentation was followed by Kimberly Kelly-Wintenberg, president and chief executive officer of Atmospheric Glow Technologies, who described an indoor air bio-contaminant control technique using atmospheric uniform glow discharge plasma that can be installed in existing heating and cooling systems in buildings. Other highlights from this session included a discussion of toxigenic molds in residential, office, and school environments by Bruce Kelman, principal for Globaltox; a review of the legal aspects surrounding IAQ problems by John Singleton, managing partner for Singleton Urquhart; a look at mold in indoor environments from the public health perspective by Paula Schenck, assistant director for indoor environments and health at the University of Connecticut Health Center; and a presentation on the links between mold and mycotoxins in building materials by Adnan Uzunovic, mycologist with Forintek Canada Corp. Again, the presentations were followed by a question-and-answer session. Questions to the panel focused on the definition of end points to toxicity as well as a clarification of the allergic and toxic effects of mold.

The third session of the conference dealt with "Design, Construction and Operation of Healthy, Sustainable Buildings." Opening speaker at this session, Douglas Spratt, president of Douglas Spratt & Associates, offered his views on a responsible approach to environmental management of existing buildings. He proposed that assessments of sustainable buildings would need to look at energy, IAQ, environmental impacts, and water use. The discussion topics in this session included an overview of green building in Seattle by Michael Aoki-Kramer, code development analyst for the Seattle Department of Planning and Development; the importance of IAQ for green buildings by Jack Meredith, director of technical value for BC Buildings Corporation; the economics of healthy, sustainable buildings by Craig Patterson, business development manager for VEL Engineering; a look at how IAQ impacts the need to improve energy efficiency in housing by Barbara Mullally-Pauly, senior chief of the housing program for the Office of Energy Efficiency, Natural Resources Canada; and the business case for green buildings, by Martine Desbois of Martine Desbois & Associates, who illustrated the main benefits of green buildings and identified some of the key drivers. Following the presentations, the panel took questions from the audience. In particular, the participants asked the panel to comment on the importance of air conditioning and ventilation equipment maintenance, to offer suggestions for overcoming difficulties in selling energy efficiency solutions to the public, and to elaborate on the definition of

sustainable cities and possible linkages between air quality and climate change. Dick Scherr, executive director of A&WMA, was the luncheon speaker on the second day of the conference. He offered a brief history of the Association and outlined its mission to advance the knowledge and understanding of environmental issues, including IAQ.

The fourth and final session of the conference was on "Standards Guidelines and Regulations" and was led by Elissa Feldman, associate director of EPA's Indoor Environment Division. Feldman described EPA's approach to IAQ standards, guidelines, and regulations. Other highlights from this session included an overview of IAQ regulations in British Columbia by Roberta Ellis, vice president of the prevention division for the Worker's Compensation Board of British Columbia; a summary of current regulatory and standards activities in the United States relative to heating, ventilation, and air conditioning systems by Robert G. Baker, founder and chief executive officer of BBJ Environmental Solutions Inc.; a discussion of the application of IAQ standards and guidelines for both health and comfort by Tedd Nathanson, manager of IAQ at Public Works and Government Services of Canada; and a look at public policy approaches to IAQ in Canada and the United States by David Miller, professor in the Department of Chemistry at Carleton University, Ottawa. Questions posed to the panel during the question-and-answer session that followed concerned the application of standards in commercial buildings, schools, and residential buildings, the awareness of standards by the public and do-it-yourself renovators, the effectiveness (or lack thereof) of regulations, and recent insurance industry interest in IAQ problems.

CONCLUSION

As was highlighted during the four sessions, IAQ is rapidly becoming recognized as one of today's key environmental issues. This situation is exacerbated by the fact that, because of the climate, people living in North America on average spend more than 85% of their time indoors. There is also a conflict between energy conservation (tighter buildings) and the resultant reduction in air exchange between the ambient and indoor environments that further contributes to the problem of poor indoor air. This and similar conferences provide an excellent opportunity for A&WMA, in collaboration with other organizations, to play a leadership role in helping to resolve these issues. For more information on A&WMA Specialty Conferences, visit www.awma.org/events. ♦

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