



DRAFT

## BUSINESS COUNCIL ON INDOOR AIR

1225 19th Street, N.W., Suite 300, Washington, D.C. 20036 ☐ (202) 775-5887

### OPERATING PLAN OF BUSINESS COUNCIL ON INDOOR AIR, INC.

#### PART I SUMMARY OF BUSINESS AND POLITICAL CLIMATE

#### I. Indoor Air Quality History:

- A. For many years, indoor air quality took a back seat on the agendas of regulators, environmentalists and consumer activists. As energy conservation measures were instituted in the early 1970's, the public began to pay increasing attention to indoor air pollution, and recent statements indicate that some people believe that exposure to indoor air pollutants might pose risks to humans greater than exposure to outdoor air pollutants.
1. EPA and CPSC studies indicate that higher concentrations of some contaminants have been found indoors than are present outdoors.
  2. Most people spend 90% of their time indoors, thus exposure to indoor air is greater than to outdoor air.
  3. EPA estimated recently that indoor air pollutants may account for as many as 3500 to 6500 cases of cancer a year (excluding those from asbestos, radon, pesticides applied indoors, and worker exposure to contaminants).
- B. Federal regulatory action regarding indoor air has been fragmented -- split between different agencies and focused on specific sources (radon, formaldehyde, specific pesticides, etc.).
1. No one agency has specific authority to regulate indoor air quality, so actions have been taken on a piecemeal basis when an existing statute gave an agency jurisdiction over a substance or consumer product that was considered to be a source of indoor air pollution.

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2. The statutory authority included: Toxic Substances Control Act; Federal Insecticide, Fungicide and Rodenticide Act; Consumer Products Safety Act; Hazardous Substances Act; and Occupational Safety and Health Act.
3. The Committee on Indoor Air Quality (composed of representatives of 16 different federal agencies with regulatory authority or research related to indoor air quality) was in charge of coordinating the federal response to indoor air quality problems, but rarely met and had little or no funding.
4. Funding levels specifically for indoor air programs were low to non-existent. Congress did not begin appropriating resources for EPA to perform research on indoor air quality and radon mitigation until 1984, and even then, funding levels were only between \$2 and \$4 million per year.

## II. Current Status:

- A. Congress, EPA and other federal agencies are now beginning to approach indoor air quality in a cohesive, coordinated manner and are establishing the framework for a Federal Indoor Air Quality Program.
- B. EPA has approached the IAQ issue by identifying, characterizing, and ranking indoor air problems. EPA also assesses and implements mitigation strategies. Information dissemination to state and local regulators and to the private sector is one of EPA's key tools.
- C. In following this approach, EPA and other federal agencies are moving simultaneously along two tracks.
  1. Source-specific strategies: EPA is identifying high-risk pollutant sources and characterizing exposures and health risks of various populations to those sources.
  2. Generic, cross-cutting strategies: At the same time, EPA is assessing total exposure to indoor air pollutants and developing mitigation strategies that address multiple pollutants (improved building design, management techniques, etc.).

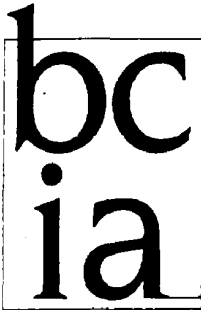
- D. In 1986, Congress passed the Radon Gas and Indoor Air Quality Research Act, which, among other things:
1. required EPA to report to Congress on October 1, 1988 regarding federal indoor air quality activities and to make recommendations regarding future direction of the federal IAQ program, including whether further federal legislative action is necessary.
  2. required EPA to coordinate federal, state, local and private research and development efforts related to the improvement of IAQ, and to conduct such research itself.
  3. required EPA to disseminate information to assure public availability of activities conducted under this Act.
  4. required EPA to establish an interagency committee to assist it in performing the duties required by this Act (thereby breathing life into the Committee on Indoor Air Quality).
- E. Fourteen federal agencies are involved in over 100 IAQ research, information and other projects (excluding radon-specific projects). These projects will form the underlying data base which will shape future risk and exposure assessments and mitigation strategies.
- F. Legislative action establishing a comprehensive, coordinated Federal Indoor Air Program is likely in the near future.
1. The assessment stage of legislation (i.e., what legislation is in force now) will likely be considered completed when EPA submits its report to Congress in October, 1988. The report is expected to include requests for additional statutory authority.
  2. Indoor air quality legislation is currently pending in the House and Senate. Among other provisions, this legislation would:
    - a. raise spending on IAQ from \$3.8 million to \$49.5 million, including \$18 million for research and health advisories.
    - b. expand current IAQ research programs.

- c. require EPA to publish a list of indoor air contaminants and to publish health advisory documents for these contaminants (minimum requirement of 6 health advisories every 18 months for 3 years). Health advisories would include a "no adverse effect level."
- d. require EPA to publish bulletins providing an assessment of technologies and management practices for control and measurement of indoor air contaminants.
- e. require EPA to prepare a response plan identifying actions to be taken to reduce contaminants in indoor air, including identification of needed actions under the authority of existing statutes.
- f. provide funding for grants to states to support the development and implementation of management strategy and assessment regarding IAQ or for a response program designed to reduce human exposure to indoor air contaminants.

III. Action Necessary Now:

- A. The Federal Indoor Air Program is being designed now. Once the plan is set, it will be very difficult to correct mistakes or concerns that were overlooked at the outset. It will be far more effective to help design the program and to ensure that it is carried out properly than to work within a framework over which industry had no input.
- B. It would be a mistake to underestimate the importance of current activities and proposed legislation because of their emphasis on information dissemination rather than federal regulation.
  - 1. Such activities have great potential for damage, given the intent that this information be used by state and local regulatory authorities, as well as the private sector.
  - 2. It will be much easier to work to ensure that accurate information is disseminated (and that procedures are in place to ensure public comment and review) than to try to pick up the pieces after incorrect information is released and is being used by state and local regulators across the country.

- C. The federal research program will provide a framework for future risk assessments and mitigation strategies.
1. Critical assumptions made now in underlying research regarding indoor air conditions (ventilation, filtration, etc.) will greatly influence the results of the research and the body of data upon which EPA and state and local authorities will base their regulatory programs and decisions.
  2. The list of studies currently underway should be reviewed to determine which ones will present generic issues relating to exposure and risk assessments and to mitigation strategies. Key studies should then be reviewed to ensure their scientific soundness and to determine whether the Council can contribute information or suggestions that would improve these studies. Special attention should be paid to protocols of new studies.
- D. Working with EPA and other indoor air experts now, particularly on the scientific issues, should help the Council establish credibility and develop a good working relationship with EPA and other agencies.



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## OPERATING PLAN OF BUSINESS COUNCIL ON INDOOR AIR, INC.

### PART II BCIA FUNCTIONS

#### I. Mission Statement:

The Business Council on Indoor Air shall exist to assist policy makers with the process of understanding and properly addressing indoor air quality.

#### II. Primary Targets:

##### A. Legislative

1. Federal
2. State
3. Local

##### B. Regulatory

1. Federal
  - a) Environmental Protection Agency.
  - b) Occupational Safety and Health Administration, Department of Labor.
  - c) Consumer Product Safety Commission.
  - d) Food and Drug Administration, Department of Health and Human Services.
  - e) Department of Energy
2. State

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III. Secondary Targets (concerned groups with influence over primary targets):

A. Business

1. Potential members of Business Council on Indoor Air -- manufacturers of chemicals, home furnishings, cleaning products, ventilation/air purification equipment, cosmetics, etc.
2. Building owners and managers, architects, construction contractors, realtors.
3. Business associations, e.g., Chambers of Commerce.

B. Health

1. Voluntary groups, e.g., American Lung Association.
2. Medical, e.g., American Medical Association, American Thoracic Society.

C. Organized Labor

1. Occupational safety and health officials and specialists.
2. Construction trade unions.

D. General and Specialized News Media

IV. Strategies:

A. Work with Legislators and Regulators to help:

1. Define "adequate indoor air quality."
2. Identify, select and promote proper and effective means of improving indoor air quality.

B. Work with concerned groups to improve their understanding of the nature and composition of indoor air.

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V. Functions:

- A. Information gathering, analysis and reporting to Business Council members on legislative, regulatory and other activity related to the Business Council's mission.
- B. Development of general and specific positions in response to legislative, regulatory and other opportunities.
- C. Identification of existing resources (e.g., research and expert witnesses) to support Business Council positions.
- D. Identify and secure additional resources as necessary to support positions.
- E. Communicate to primary and secondary targets through individual and group meetings, correspondence, publications, articles, media relations and other accepted means.





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### PART III ACTION ITEMS SEPTEMBER-DECEMBER 1989

#### Category One: Federal Legislation

**CURRENT STATUS:** The following legislation is currently pending in Congress and will remain on the Congressional agenda in the next year:

- **Indoor Air Quality Act (S. 1629)**  
Sponsor: Senator Mitchell (D-ME)  
Status: Assigned to Environment and Public Works Committee; no further action expected this session; major redrafting expected in new year.
- **Indoor Air Quality Act (H.R. 3809)**  
Sponsor: Rep. Kennedy (D-8th Dist., MA)  
Status: Companion bill to S. 1629; assigned to House Energy and Commerce Committee and to Science, Space, and Technology Committee; not expected to move independently of Mitchell bill.
- **Indoor Air Quality Bill**  
Sponsor: Rep. Schneider (R-2nd Dist., RI)  
Status: Introduction expected.

**ACTION NEEDED:** The imminent design of the federal indoor air program warrants close monitoring of federal legislative activity regarding indoor air.

- The impact of the proposed legislation should be assessed and reported to BCIA.
- Improvements to the legislation should be developed and approved by BCIA.

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- Contact with Mitchell's staff and the relevant House staff should be maintained and the inclusion of improvements should be encouraged as redrafting proceeds.
- BCIA members should be notified of any change in political status.

**Category Two:**  
**Federal Agency Reports To Congress**

**CURRENT STATUS:** Within the next month, EPA will be submitting a report to Congress describing the current status of the federal indoor air program and the Agency's recommendations for future action, including appropriate requests for additional statutory authority.

After its submission, the report will likely be commented upon by the EPA Science Advisory Board's Indoor Air Quality Subcommittee. Congressional hearings based on the report are also likely.

**ACTION NEEDED:**

- Obtain copy of report and assess impact of EPA recommendations on BCIA members. Determine whether improvements to EPA's report or recommendations are appropriate.
- If necessary, prepare white paper analyzing EPA's report and suggesting improvements.
- Present white paper or other comments at hearings on the report, including those held by the Science Advisory Board's Indoor Air Quality Subcommittee and appropriate Congressional Committees.

**Category Three:**  
**Federal Agency Information Dissemination**

**CURRENT STATUS:** Before the end of the year, EPA is scheduled to publish a manual on indoor air quality problems in commercial buildings.

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**ACTION NEEDED:**

- Obtain draft version of manual, if available. Assess impact of manual on BCIA members and determine whether improvements should be made.
- Present comments to EPA regarding improvements that should be made in the draft manual. Meet with EPA staff as appropriate.

**Category Four:**  
**Federal Agency Research Projects**

**CURRENT STATUS:** EPA and other federal agencies are currently involved in numerous research projects related to indoor air. A complete list is contained in the EPA booklet "Current Federal Indoor Air Quality Activities." Following are key projects that are likely to be of interest to all BCIA members and which will form the data base upon which EPA and other federal and state agencies will base future regulations:

**Note:** Agency designations are as follows:

BPA Bonneville Power Administration  
CPSC Consumer Product Safety Commission  
DOE Department of Energy  
EPA Environmental Protection Agency  
GSA General Services Administration  
NBS National Bureau of Standards (to be renamed the  
National Institute of Standards and Technology)  
TVA Tennessee Valley Authority

- **Evaluation of Air Cleaners [EPA]:**  
Status: Unknown
- **Procedures to Determine Air Exchange Rates [EPA]:**  
Status: Unknown
- **Population Exposure Studies [EPA]:**  
Status: Unknown
- **Data Analysis [EPA]:**  
Status: On-going collection and comparison of data on indoor and outdoor pollution and evaluation of health effects.
- **IAQ Risk Study Assessment [EPA]:**  
Status: No activity on project to date.

- **Indoor Dispersion/Ventilation Model [EPA/NBS]:**  
Status: Final report due October 1988.
- **Consumer Exposure Methodology [EPA]:**  
Status: Report available.
- **Computerized Consumer Exposure Model (CCEM) [EPA]:**  
Status: Computer card is undergoing testing.
- **Methods for Estimating Concentrations of Chemical Substances in Indoor Air [EPA]:**  
Status: Report available.
- **Alternative Designs for Assessing Exposure in Homes [EPA]:**  
Status: First draft undergoing review.
- **Contaminant Migration in Indoor Air in Homes [EPA]:**  
Status: Draft report expected in 1988.
- **Indoor Air "Guidance Document" for Public [CPSC]:**  
Status: Preparing to contract for information-gathering workshops to be held FY 1989; target date for publication September 1989.
- **IAQ Macromodel for Assessing IAP from Combustion Appliances (CPSC/DOE/EPA):**  
Status: Phase I of 1987 contract final report to be completed in 1988.
- **Air Filters [CPSC/NBS]**  
Status: Test protocol under development contract; completion expected Fall 1988.
- **Air Filtration Appliances [CPSC]**  
Status: Report on testing of four devices to be completed: Winter 1987-1988.
- **IAQ Model Development [DOE/EPA/NBS/CPSC]**  
Status: Report was expected in March 1988.
- **Air Infiltration Research [DOE]**  
Status: Ongoing; simplified multizone model completed 1987.
- **Passive Measurement of I/V Using Perfluorocarbon Tracer Gas (PFT) Technique [DOE]**  
Status: Ongoing.

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- **Air Infiltration in Multi-Family Housing [DOE]**  
Status: Ongoing.
- **IAQIV Measurements In Large Buildings [DOE]**  
Status: Ongoing research; report available.
- **Multi-Family Housing Air Leakage Research [DOE]**  
Status: Ongoing; first set of field measurements completed.
- **IAQIV Measurements [DOE]**  
Status: Ongoing
- **Ventilation Research [DOE]**  
Status: Ongoing
- **Scale Model Ventilation Flows Studies [DOE]**  
Status: Ventilation efficiency scale model testing.
- **NIOSH Manual of Analytical Methods [HHS]**  
Status: Ongoing.
- **New Energy Efficient Home IAQ Study [BPA]**  
Status: Final report under review.
- **IAQ Study In Commercial Buildings [BPA]**  
Status: Collect data in 38 buildings; conference paper available; final report under review.
- **Carbon Dioxide Based Ventilation Control System Demonstration [BPA]**  
Status: Testing completed.
- **Exhaust Fan Mitigation [BPA]**  
Status: Reports received from contractors; papers available; BPA publication under review.
- **Exhaust Air Heat Pump (EAHP) Project [BPA]**  
Status: Phase III (summary of first phases and regional assessment of technology) in progress; paper available.
- **Effect of Airtight Wood Heaters on Residential IAQ [BPA]**  
Status: Phase II completed; report available.
- **Ventilation Testbed Study [BPA]**  
Status: Data collection almost completed; draft report in progress.

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- **Multi-Family Air Exchange Study [BPA]**  
Status: Testing being completed.
- **Thermal and Environmental Evaluation of Advanced Technology Office Buildings [GSA/NBS]**  
Status: Ongoing.
- **Indoor Air Pollution Concentration Model [NBS]**  
Status: Phase II report issued October 1987; model being expanded to include emission and absorption from materials.
- **Infiltration and Ventilation in Large Buildings [NBS]**  
Status: Test methods development completed; ongoing testing.
- **Indoor Air Control Technology Study [TVA]**  
Status: Tests completed on 5 control devices; reports available; further testing ongoing.
- **Commercial Indoor Environmental Management System Development [TVA]**  
Status: Concept paper drafted; in-house team is determining scope of work.

**ACTION NEEDED:** Ensure that key research projects regarding issues of concern to BCIA members are based on sound scientific principles and realistic assumptions.

- Obtain detailed description of and further information regarding current status of each research project listed above.
- Review the information and select key projects that address generic issues of interest to BCIA members (e.g., those focusing on risk and exposure assessments and mitigation strategies).
- Review protocols for and monitor the key research projects to ensure that accurate, realistic assumptions are made and that the projects are based on sound scientific principles. Where appropriate, present suggestions or concerns to the researchers and agency conducting the study.

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