

2050

March 22, 1993

Ms. Eileen Thomas  
Conference Coordinator  
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Washington, DC 20002

Dear Ms. Thomas:

Enclosed is a copy of my presentation material in hard copy and on 3 1/2 inch disk. The overhead transparencies are not included on the disk, but are only in the hard copy. One of the overheads, the photo of Charles Auer and Ron Van Gelderen, awaits clearance for use by Floor Covering Weekly, so be advised that use of that photo is not final; further, if and when approval for its use comes, I will substitute a 35 mm slide for the overhead (the slide will be in living color, so much more flattering to all concerned).

If necessary, I can note where in the hard copy the various overhead illustrations will come (and number them), should that be necessary for production of a Proceedings.

I look forward to the meeting. Thanks for all your help.

Sincerely,

J. William Hirzy

**INDOOR ENVIRONMENT '93 -- CARPET DIALOGUE PANEL**

**APRIL 22, 1993 - BALTIMORE, MD**

**"RE-INVENTING GOVERNMENT - AND HISTORY"**

**J. William Hirzy, Ph.D., President-Elect  
National Federation of Federal Employees Local 2050**

In addition to being a union officer, I am senior scientist of the Risk Analysis Branch, Office of Prevention, Pesticides and Toxic Substances, USEPA. I do not speak for EPA today, but for the union. I specifically and unequivocally warn against interpreting anything I say as representing the Agency's policy or point of view.

This paper derives an alternate history of the past three years, one that would have obtained if EPA had worked as diligently to protect public health as it did to protect the carpet industry (Fig. 1). It is impossible to document all of EPA's actions in this regard in a presentation as short as this, but a substantial amount of documentation is in the footnotes, and additional documentation can be provided upon request.

My union represents professionals at EPA Headquarters, many of whom were injured when carpet was installed in their workplace. Those injuries, and other factors, led Local 2050 to file a petition<sup>1</sup> with EPA in 1990 under section 21 of the Toxic Substances Control Act asking for regulation and testing of carpet and carpet emissions.

Concurrently with development of the petition by the union, EPA undertook a study of its indoor environment, reported in four volumes. Volume I (Figs. 2 and 3) was a health and job survey (over 600 employees attributed some degree of health complaint to carpet fumes); Volume II reported air monitoring done a year after most of the carpet installation (no remarkable carpet-related findings); Volume III sought correlations among air monitoring and health complaint data (none found); and Volume IV, the Unanticipated Volume, looked for other correlations between workplace factors, e.g. presence of new carpet, and high levels of health complaints (found statistically significant correlations among presence of carpet or carpet odors and a variety of adverse health effects: dizziness, headache, sore throat, dry throat,

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<sup>1</sup> Citizen's Petition RE: Control of Risk Associated With Certain Carpet. National Federation of Federal Employees Local 2050. Filed January 11, 1990 with the U.S. Environmental Protection Agency, Washington, DC 20460.

hoarseness, chest problems, nausea, fatigue and skin problems)<sup>2</sup>.

The unions caused two Supplemental Volumes to be published. The Supplement to Volume I included Congressional testimony<sup>3</sup>, reviews by health professionals of the results of the health survey in Volume I, letters between management officials complaining about carpet-related health problems among workers, and other material related to the "toxic carpet incident" at EPA. The Supplement to Volume II included data from air monitoring done while the carpet was "fresh", (Fig. 4) showing the only chemical related spatially and temporally to the carpet was 4-phenylcyclohexene (4-PC)<sup>4</sup>.

Among the remedies sought in the union's TSCA petition were: in vitro and whole animal studies (in a suitable model) on 4-PC and the whole carpet off-gassing mixture; mandatory reporting by industry of any allegations of adverse effects from 4-PC or any mixture containing it; development of a quality standard for maximum 4-PC levels in carpet and its raw material, styrene-butadiene (S-B) latex; and issuance of an air quality standard for 4-PC to protect against induction of multiple chemical sensitivity and irritancy effects. (Fig. 5)

While EPA denied the petition in the Federal Register of April 24, 1990 on the basis of an "absence of scientific certainty", (Figs. 6 and 7) an Office of General Counsel representative privately told the union something quite different a few weeks earlier. He said that the Agency was denying the petition because it would cost the industry "billions of dollars" if it were granted, and that he would deny that the conversation had taken place if the question ever arose. He went on to ask if the union was interested in participating in a carpet policy dialogue, to be aimed at better understanding carpet emissions and identifying ways of controlling them. Naturally, since we had called for negotiations on the issue ourselves, the union said, "Yes". Thus was begot the "Carpet Policy Dialogue".

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<sup>2</sup> Indoor Air Quality and Work Environment Study: EPA Headquarters Buildings. In Four Volumes and Supplements to Volumes I and II. November 1989-June 1991. U. S. Environmental Protection Agency, Washington, DC 20460.

<sup>3</sup>Testimony of Bobbie Lively-Diebold before the House Subcommittee on Natural Resources, Agriculture Research and Environment, July 20, 1989.

<sup>4</sup> Supplement to Volume II, Inter alia, at p. G-6. May 1990. See Footnote 11 for identification of 4-PC as a carpet-borne toxicant by Crabb, Van Ert and Carter (1984).

That "Dialogue", chartered and run by EPA - which not too oddly is absent from the panel today - ran for fourteen months and resulted in some positive outcomes and two very negative outcomes.

The positive outcomes - which are more properly attributed to the union's TSCA petition and unrelenting pressure and the industry's survival instincts - include movement of the carpet industry toward developing its own standard for 4-PC levels in S-B latex (as the union had suggested), development of standard test methods for measuring emissions from carpet, padding and adhesives, and production of a brochure which, however obliquely, issues warnings to consumers that carpets might be associated with adverse health effects. (Fig. 7)

The negative outcomes were production of the aforementioned brochure, fatally weak and deceptive in the way it warns about health effects, and evolution of the emissions testing program into a dangerous and misleading advertising campaign by the carpet industry, with the collusion of EPA and others<sup>5</sup>.

With respect to the flawed brochure, despite Congressional calls for its withdrawal<sup>6</sup>, EPA insisted while the brochure was

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<sup>5</sup> General Services Administration, Consumer Product Safety Commission, American Lung Association and American Federation of State, County and Municipal Employees, American Society of Interior Designers, International Facility Management Association and Research Triangle Institute are listed as members of the CRI Indoor Air Quality Panel.

<sup>6</sup> E.g., Letter from Representative Bernard Sanders to Victor J. Kimm, January 13, 1993. Mr. Kimm's reply contains a typical EPA inaccuracy regarding EPA's own internal policy not to use 4-PC carpeting; he states, "The decision by EPA management to remove carpet containing 4-PC from the complex was made as part of a labor management agreement with Local 2050 of the National Federation of Federal Employees". In fact, the "labor management agreement", to remove carpet, was signed in June 1990, but carpet removal was unilaterally begun by management in September 1989. The policy not to use 4-PC carpet was established by Assistant Administrator Grizzle's fiat on August 5, 1988, when he issued a "Memorandum to All Headquarters Employees", communicating, "a number of decisions which have been made by the Office of Administration....The key decisions are:...(Number 1)..Not to use any additional yardage of the carpeting now in stock and to take steps to ensure that floor covering materials used in future renovations do not contain 4-phenylcyclohexene.." To be sure, the union was pushing all these ideas based on knowledge the Crabb, Van Ert and Carter work, but there was no "labor management agreement" involved here, it was a completely unilateral and heartily welcomed decision by management. Which they now choose to disavow as such.

being developed, and even as late as mid-March, 1993, that there was no scientific evidence linking carpet and adverse health effects<sup>7</sup>. This, in spite of the existence of EPA's own four-volume study whose results say otherwise. About one year and one Congressional hearing after being informed of Dr. Anderson's work<sup>8</sup>, EPA has proposed modifying the flawed brochure language to the effect, "...While no scientific link has been established between chemicals emitted from carpet and adverse effects, recent preliminary work has shown mice experience severe health problems and death from carpet emissions". Perhaps EPA believes that the 4-PC exposures induced psychogenic neuropathies in the mice in Dr. Anderson's laboratory and the animals unnecessarily worried themselves to death.

With respect to the advertising campaign, in July 1992, immediately after a visit from Dr. Anderson to representatives of the industry, the Carpet and Rug Instituted its "Green Tag" program. In the opening paragraph of the press release (Fig. 8) announcing the program CRI asserts, "The CRI label" (i.e. the Green Tag) "will tell consumers that the carpet or rug they buy meets the predetermined indoor air quality testing criteria." (Emphasis added). A single sample of a "generic type"<sup>9</sup> is tested once a year, entitling the entire year's production of that generic type to carry the Green Tag (Fig. 9). Aside from the obvious insufficiency of testing so limited a quantity of a product with so many process variables associated with its production - and the virtual impossibility of the entire year's production being fairly

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<sup>7</sup> Telephone conversation between Joe Boyle, Information Management Division, Office of Pollution Prevention and Toxics, EPA and Sandra Martinez, March 11, 1993, to the effect, "There is no scientific link between carpet and human health effects, and all but one of the EPA people exposed to the 4-PC carpet are back to work." In fact, there are over forty EPA employees who are still unable to enter the building for work and who remain intolerant of many other indoor environments, and Vol. IV of the EPA Building Study makes a clear linkage between carpet and adverse effects.

<sup>8</sup> Memorandum: "Carpet/4-Phenylcyclohexene Toxicity; J. W. Hirzy to Oscar Hernandez, April 28, 1992." Dr. Anderson has reported that mice have died following two one-hour exposures to 4-PC alone at concentrations of 0.4 ppm in her test chamber. That cumulative dose, 0.8 ppm-hrs, would be exceeded by a child in a newly carpeted bedroom containing an initial concentration of ca. 0.03 ppm in less than two days.

<sup>9</sup>Defined by face fiber type, backing, dyeing method and chemical composition, and representing probably hundreds of differing styles and models and at least hundreds of thousands of square yards of carpet. CRI, Indoor Air Quality Program for Carpet. 1992.

and accurately characterized by so slim a test protocol - the "Green Tag" implies safety. (Fig. 10)

The consequences of a consumer relying on either the implication of safety, or the assurance that the actual carpet they buy meets any sort of criteria whatsoever, could be horrendous. This is shown by the Fitzgerald case, featured on the "Street Stories" broadcast last October<sup>10</sup> on carpet toxicity. The Fitzgeralds' carpet not only made them and some of the people who visited and worked in their store sick, but also killed mice in Dr. Anderson's lab. Upon subsequent testing for emission levels, the Fitzgeralds' carpet was found to have qualified for a "Green Tag".

Consumers who bring "Green Tag" carpet into their homes and get sick from it, will probably not suspect the carpet as the source of trouble until very late in the game<sup>11</sup>. By that time many, if not all of these people and their families, will have gotten extremely sick, some acquiring MCS as EPA employees and the Fitzgeralds did.

What if EPA had taken a tack different from the one it took in establishing the "Carpet Policy Dialogue"? What if EPA had called the carpet industry in and forthrightly explained that it had a reasonable basis to conclude<sup>12</sup> that new carpet emissions were making people sick, that it was proposing rulemaking consistent with the remedies sought by NFFE, and that it was offering negotiated rulemaking? Here is one alternative history of the past three years.

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<sup>10</sup> "Street Stories" broadcast of October 29, 1992. Columbia Broadcasting System, New York.

<sup>11</sup> "...Symptoms reported by affected individuals include eye, nose and throat irritation, headache, sinus irritation, and fatigue. In certain cases, individuals are unable to inhabit their homes until the new carpeting is removed. In other cases, individuals failing to recognize carpeting as the contaminant source have suffered repeated respiratory problems until their carpeting was identified as the contaminant source". Crabb CL, Van Ert DE and Carter DE. Odorous emissions from new carpeting: development of field monitoring and analytical technique. Master of Science Thesis, University of Arizona. 1984.

<sup>12</sup> "Reasonable basis to conclude" is the legal standard for the action under TSCA requested in the union's petition. EPA claimed in its denial of the petition that "scientific certainty" was the applicable standard, even though it had argued successfully against the "scientific certainty" standard in defending Chemical Manufacturers Association v. EPA, 859 F. 2d. 977, 986 (D.C. Cir. 1988)

The same parties as constituted the Carpet Policy Dialogue negotiated, and then began, testing via the well known ASTM E981 method. As negotiations proceeded, warnings were issued, as suggested to CPSC by 26 states' attorneys general<sup>13</sup>. CRI gave a "heads up" to its members to quickly respond to consumer complaints of persistent or irritative odors as real health threats, pulling any such carpet immediately, and replacing it. CRI and the latex manufacturers began testing to determine maximum tolerable levels of 4-PC in carpet, based on a no-effect level as determined on the ASTM E981 testing. CRI and its members established a fund to compensate people previously injured by carpet, avoiding all future punitive liability through demonstration of the industry's proactive research pursuant to the negotiated rulemaking.

EPA, CPSC, CRI the chemical industry were widely acclaimed as actively protecting both public health and economic interests. Citizen confidence in government and industry took a giant leap forward. Twenty-six states' attorneys general saved a lot of time and money.

The Fitzgeralds remained unknown to us and were healthy proprietors of a prospering lighting business in Baltimore. Hundreds, at least, of other adults and children, now sick, stayed healthy.

The carpet industry, while experiencing some short term decline in income through establishing its fund for previously injured individuals, did not face the threat of a "Johns-Manville" future.

If Mr. Clinton's Administration is serious about "re-inventing" the federal government, it should take a long, hard look at this alternative history and the tragic reality that actually exists in this case.

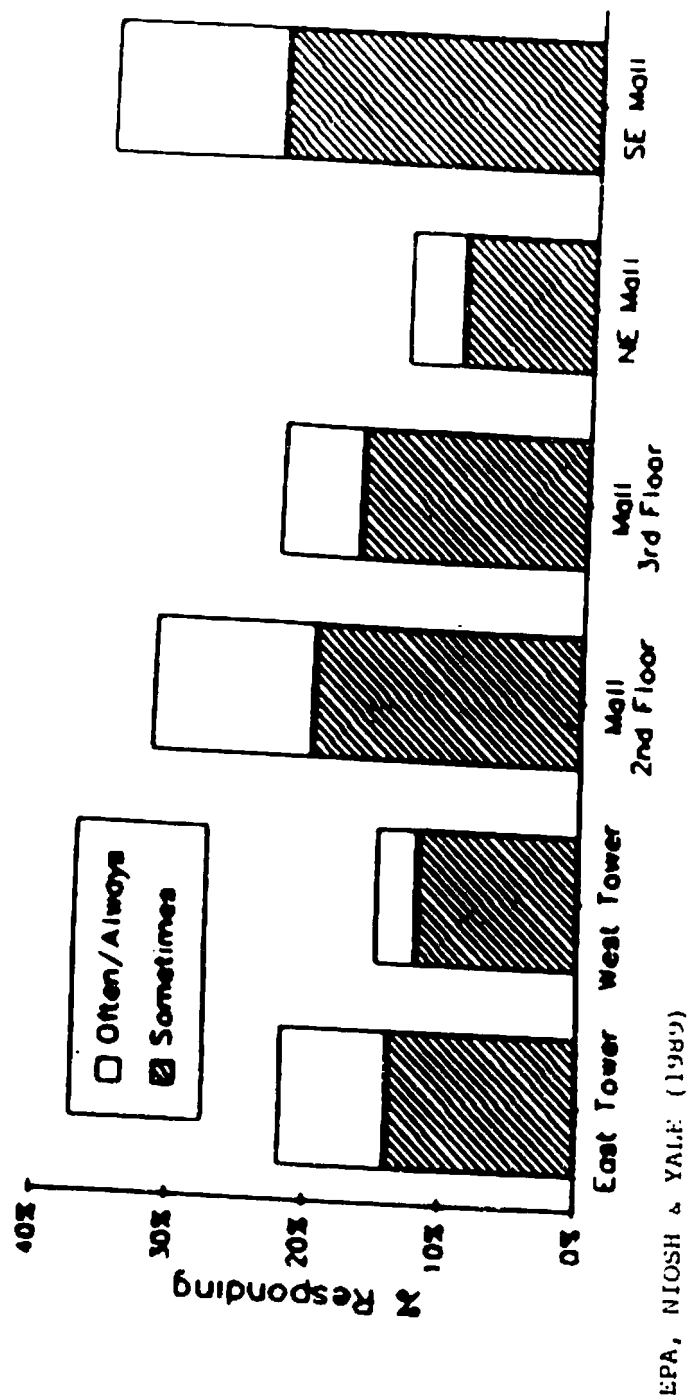
**DISCLAIMER** This paper reflects the views of the author. The author disavows any interpretation that this paper might reflect in any way the views, opinion, or policies of the U.S. Environmental Protection Agency. The author makes this presentation not as an EPA employee, but as an official of Local 2050 of the National Federation of Federal Employees.

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<sup>13</sup> Letter, Dan Morales (Attorney General of Texas) to Jerry G. Thorn, U.S. Consumer Product Safety Commission, December 23, 1991. Transmitting support of twenty six states' attorneys general for the petition filed by the State of New York with CPSC in June, 1991 asking for consumer warnings about carpet hazards.

**Exhibit S-14a: Percent of Responding Employees Attributing Eye, Nose or Throat Irritation to New Carpet Last Year, by Waterside Mall Sector**

FIG. 3



100

10

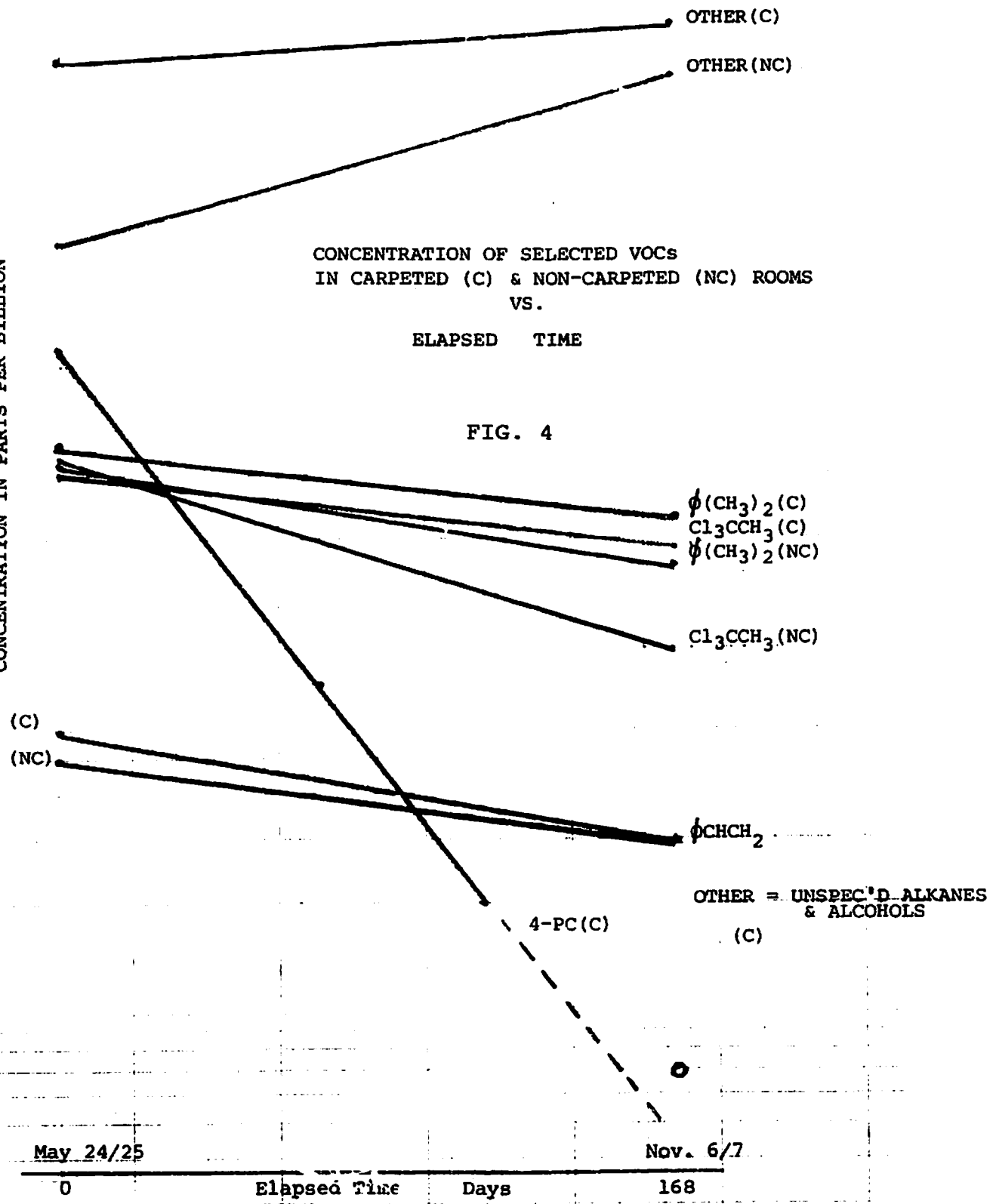
1.0

0.1

CONCENTRATION IN PARTS PER BILLION

CONCENTRATION OF SELECTED VOCs  
IN CARPETED (C) & NON-CARPETED (NC) ROOMS  
VS.  
ELAPSED TIME

FIG. 4



EXCERPTS FROM CRABB, VAN ERT & CARTER (1984)

(ABSTRACT) "The purpose of the research was to investigate the cause(s) of eye and upper respiratory irritation associated with the installation of new carpeting. Preliminary analysis of two headspace and one solvent extracted samples by gas chromatography-mass spectrometry revealed the presence of one compound, namely 1-phenyl-3-cyclohexene\*, common to all three carpet samples."

(PAGE 1) "New carpeting has also been found to periodically contribute to indoor pollution problems. In this regard, the Arizona Center for Occupational Safety and Health, the Arizona Division of Occupational Safety and Health, the Poison Control Center at the University of Arizona and the Pima County Division of Public Health have received numerous complaints from home owners and businesses with respect to indoor pollution resulting from newly installed carpeting."

(PAGES 1 & 2) "Symptoms reported by affected individuals include eye, nose and throat irritation, headache, sinus irritation, and fatigue. In certain cases, individuals are unable to inhabit their homes until the new carpeting is removed. In other cases, individuals failing to recognize carpeting as the contaminant source, have suffered repeated respiratory problems until their carpeting was identified as the contaminant source."

(PAGE 2) "It is the objective to determine the material being emitted from certain carpet samples on the assumption that one or more may be associated with symptoms of ill health...This study will focus on one of the most popular of the carpet types in use today; a short loop or tuft is woven through a mesh and a secondary backing is then applied using bonding materials to increase the structural stability and rigidity of the carpet. It is this type of carpet that seems to have generated most of the complaints received by the public health agencies."

(PAGE 51) "Phenyl-3-cyclohexene\* was identified as the largest of the contaminant peaks in each of the four samples, and was the only contaminant (above trace amounts) identified in two of the samples. The other two samples did not have similar compositions, as indicated by retention times comparisons. This confirms that the peaks quantified in the two previous sections are indeed phenyl-3-cyclohexene\*. The presence of this substance in sample 1 (Figures 7 a & b, 8 a & b) indicates that 1-phenyl-3-cyclohexene\* originated from the latex used to adhere the secondary backing to the carpet face."

\* Another name for 4-phenylcyclohexene.

Crabb CL, Van Ert M, and Carter DL. Odorous emissions from new carpeting: development of field monitoring and analytical technique. Master of Science Thesis, University of Arizona, 1984.

FIG. 6

## Cancer Mortality Among Northern Georgia Carpet and Textile Workers

Thomas R. O'Brien, MD, MPH, and Pierre Decoufle, ScD

Proportionate cancer mortality was analyzed among white male carpet and textile workers in five northwest Georgia counties for the years 1970-1984. Compared with other Georgians, carpet and textile workers had higher proportions of lymphocytic leukemia (proportionate cancer mortality ratio [PCMR] = 2.9; 95% CI = 1.4-5.4) and testicular cancer (PCMR = 3.2; 95% CI = 1.0-7.5). The excess mortality from lymphocytic leukemia was even higher when the analysis was limited to workers deemed most likely to work directly in production areas (PCMR = 4.2; 95% CI = 1.7-8.7). Further studies are needed to determine if the observed excesses are the result of workplace exposures.

**Key words:** textile, carpet, cancer, leukemia, testicular cancer, proportionate mortality

### INTRODUCTION

Although occupational cancer is an important and potentially preventable cause of mortality, the United States has no national occupational cancer mortality surveillance system. Death certificates are used in occupational mortality surveillance by other nations and in several states, including Washington State, where Milham [1983] monitored occupational mortality with proportionate mortality studies. Dubrow et al. [1987] recently described joint efforts of the National Institute for Occupational Safety and Health, the National Center for Health Statistics, and 31 collaborating states to expand the use of death certificates in occupational mortality surveillance. They also summarized the limitations of this approach.

Occupational surveillance on a state-by-state basis is valuable because industries are often regionalized. Carpet manufacturing is one such industry—over 50% of this country's carpet manufacturing plants are located in Georgia [US Bureau of the Census, 1982a]. To explore the possibility that carpet production work is associated with increased cancer risks, we have examined proportionate cancer mortality in a group of carpet and textile workers in northern Georgia.

Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services, Atlanta.

Address reprint requests to Thomas R. O'Brien, M.D., M.P.H., Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA 30333.

Accepted for publication January 27, 1988.

## FEDERAL RE

## EPA to remove troublesome c

By Marie Belson  
THE WASHINGTON TIMES

The Environmental Protection Agency's decision to rip out carpeting at the complaint prone Water side Mall will hopefully reduce the number of health related complaints, management said yesterday.

"Although unable to establish a scientific link between the carpet and employee problems, EPA decided to remove the carpeting in rooms with high frequencies of employee complaints," the EPA said in a statement.

The carpet will be removed from those rooms at the EPA headquarters office, 401 M St. SW, by Sept. 24. David Weitzman, director of the Environmental Health and Safety Division, said after the decision was announced Wednesday.

"There is one room in particular

where the carpet will be removed," Mr. Weitzman said. "Room 2827 is that specific room. Other rooms we're still identifying based on the amount of symptoms people have reported. We recognized that some rooms continue to be complained about."

The cost of the removal "won't cost a whole lot," Mr. Weitzman said. "Not a large amount of money."

Management will attempt to determine what effect the removal has on employees' health problems.

"I'm very interested in seeing if the rate of complaints changes after removal," Mr. Weitzman said. "The freshly manufactured carpet clearly caused the initial illness, but it's not clear if it still caused it after two years."

The carpet will be replaced by vinyl floor tiles. The glue used should not affect air quality and

most work will be done at night in order to air out the rooms, Mr. Weitzman said.

More than 100 EPA employees out of the 5,700 who work at the Waterside Mall have complained of dizziness, rashes, headaches, nausea, disorientation, memory loss and throat and eye irritations since the carpet was first laid two years ago. The severity of employees' illnesses has varied.

When complaints began to multiply, the EPA asked the Labor Department to expedite workers' compensation claims. The agency also permitted some of the affected employees to work at home. Others were assigned to other buildings.

Although air quality has been an EPA issue since the building was first leased in 1972, employees say it worsened after the carpet was laid between the autumn of 1987 and the

spring of 1988.

Air quality problem been caused by the is workers and equipment. the building's and Reiner, Inc., has terms are compound ducts are blocked equipment.

Several studies, in conducted by EPA concluded that the ad lay the 27,000 square y released the toxic phenyltoluene, or 4 Union officials at EPA management to remove since it was first lay years ago. After the re suspended in April 1988 rejected union demands pet's removal.

"Employee complaints formed the basis of th EPA management, ha



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The Carpet and Rug Institute, Box 2048, Dalton, GA 30722  
(404) 278-3176 FAX (404) 278-8835

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## NEWS RELEASE

FIG. 8

FOR IMMEDIATE RELEASE  
FRIDAY, JULY 17, 1992

Contact: Sarah Hicks  
706 226 9925

### **CARPET INDUSTRY PROGRAM STEPS OUT FRONT ON INDOOR AIR QUALITY: LABELING FOR CONSUMERS NOW UNDERWAY**

(ATLANTA, GA) -- American consumers concerned about the quality of air inside their homes and workplaces will benefit from a new program announced today by the Carpet and Rug Institute (CRI). CRI's "green tag" carpet testing and labeling program is the first such effort for the interior furnishings industry. The CRI label will tell consumers that the carpet or rug they buy meets the predetermined indoor air quality testing criteria.

The emission criteria for the program were determined after a review of extensive research conducted by the Research Triangle Institute, a nonprofit research organization in Raleigh, North Carolina, and the pioneer in the field. CRI also received input from its Indoor Air Quality (IAQ) Panel, which includes representatives from the American Federation of State, County, and Municipal Employees, American Lung Association, American Society of Interior Designers, General Services Administration, International Facility Management Association, Research Triangle Institute, United States Consumer Product Safety Commission, and the United States Environmental Protection Agency.

CRI President Ron VanGelderren announced the rollout of the program at a press conference held in conjunction with the National Floor Covering Market in Atlanta. "Consumers are increasingly interested in the quality of the air inside their homes and offices. CRI is breaking new ground with this consumer indoor air quality labeling program by letting consumers know which products meet our testing requirements," said VanGelderren. "Consumer confidence in our products is very important. Without it we would not be in business. That's why we're eager to tell shoppers about this important program."

-more-

FIG. 9

## TO OUR VALUED CUSTOMERS:

Today, indoor air quality has become an important environmental issue to many Americans, and rightly so. We spend 90 percent of our time at home or at work, often in energy-efficient buildings that lack fresh air ventilation. Add to that the introduction of new products and furnishings, and you have the potential for a buildup of indoor air pollution.

Questions have been raised about pollution by all kinds of interior products, including new carpet. It is true that new carpet can give off low levels of chemicals, but they are extremely small when compared to other products used indoors.

Nevertheless, an industry wide program has been established in an effort to reduce indoor air pollution even further. We have developed a carpet indoor air quality ("IAQ") program to ensure that the carpet you purchase is environmentally responsible by meeting specified testing requirements for indoor air quality. Our goal for the IAQ program is to help customers make informed buying decisions about carpet.

To help us understand and meet the needs of consumers, we organized an indoor air quality panel made up of individuals from government agencies and consumer oriented groups. The Panel will also provide CRI with insight about the general structure and operation of the CRI Indoor Air Quality Program and keep us up to date on new developments.

You will probably have some questions about indoor air quality and the industry's new program when you see the certification label on carpet. Please take a minute to review the questions and answers in this brochure. If you would like more IAQ information, you may call 1-800/882-8846.

For generations, responding to consumer needs and concerns has been our top priority. The carpet industry looks forward to continuing that commitment to you in the years to come.

Sincerely,  
Ron VanGelder  
President of CRI

## QUESTIONS ABOUT THE CRI INDOOR AIR QUALITY CARPET TESTING PROGRAM

### Why is the carpet industry conducting this IAQ program?

All of us spend a lot of time indoors. So, the quality of the air inside becomes very important to us at home and at work. Every type of carpet uses chemicals. By testing carpet, we are asking carpet manufacturers to make carpet better all the time and reduce the chemicals that go into the air. We want you to know about carpet odors and carpet chemicals so that you will understand why it is important to buy carpet that has the CRI-IAQ label. This label tells you that the carpet manufacturer is committed to make carpet that is environmentally responsible.

### What does the CRI-IAQ label mean?

A label, like the one on this brochure, on the back of a carpet sample means that carpet like that has been tested and has passed the Indoor Air Quality (IAQ) Carpet Testing Program requirements of The Carpet and Rug Institute.

### What are the IAQ Program requirements?

The program requires carpet to be tested for chemicals which could be released into the air. The total chemicals given off must be less than 0.6 milligrams per meter square per hour (0.6 mg/m<sup>2</sup>-hr). That is extremely low compared to some other products used inside your house or office (see Chart 1 on the back of this brochure).

### What happens when carpet does not pass the program requirements?

If a particular carpet product type does not pass the program requirements, the manufacturer cannot use the label. When manufacturers make changes in their carpet, they may have it tested again. Only if the carpet passes the requirements can the manufacturer use the label on carpet samples of the same product type.

### What is a carpet product type?

A product type can have many styles and colors but it must have the same basic fiber type, chemical content, dye process, and backing type.

### How often is carpet tested?

A sample from every carpet type will be collected by CRI at least once per year. These will be tested by a laboratory outside the industry with very special indoor air quality testing equipment. If the carpet that passed is tested one year later, and it fails, then the manufacturer will be asked to make changes. If it passes later on, then that product will be tested more often.

### Is there a lot of pollution caused by new carpet?

No. Chemicals from carpet that go into the air are much less than chemicals that come from other products used inside such as paints, paint strippers, varnishes, wood finishes, waxes, caulking, adhesives, etc.

### Is the carpet bad if I can smell it?

No. New carpet (like a new car) can have an odor. A chemical called 4-phenylcyclohexene (4-PC) that comes from some new carpet may have an odor for a short period of time after installation. The 4-PC comes from the latex glue used to hold the carpet fibers together. Most of the odor is gone in about a week, sometimes in days.

### What can I do to help the carpet chemicals in the air go away?

Ventilation is very important. Open windows and doors to let in fresh air. Turn on the fan of your heating/air conditioning system. Continue this process for at least 48-72 hours after the carpet has been installed. Be sure to ask your dealer or carpet installer to follow the carpet installation guidelines (CRI-105) recommended by The Carpet and Rug Institute. Also follow the IAQ INSTALLATION guidelines and the IAQ MAINTENANCE guidelines on the back of this brochure.

## OTHER LITERATURE FROM YOUR RE

A Guide to Carpet and You  
published  
Indoor Air Quality and N.  
Should Know, publi

## \*CRI INDOOR AIR

CRI is consulting on a  
individuals from the fo

General Services  
U.S. Consumer Produ.  
U.S. Environmental  
Non-Gov

American Federation  
Municipal I  
American Lun,  
American Society of  
International Facility M.  
Research Tria

Note: The organizations have pr  
Indoor Air Quality (Carpet Testing)  
representation on the Panel does no  
official involvement by the organi

FIG. 10

..."With a new consumer labeling program in place, you don't have to worry whether the carpeting you buy will pollute the air in your home"... (*Home Mechanix*, November 1992, p.24)

..."Floor coverings that meet or exceed standards set by the Indoor Air Quality Carpet Testing Program will carry a green label....Those that fail go back to the manufacturer..."  
(*The Washington Post* , *Home Front*, p. 5, September 3, 1992)