

# ABIH Certification: The Mark of the Professional

## NEWS

May 2003

### March 2003 Board Report

During the March 22-23, 2003 meeting, the following major issues were discussed, finalized and/or voted on by the Directors.

#### \* Non-Payment of Dues

The Board approved a motion to disallow a Diplomate's use of the CIH/CAIH designation if they are not up to date with their renewal fees as of March 1<sup>st</sup>. The requirement for authorized use of CIH/CAIH is successful completion of the Certification Maintenance process every five years and payment of the annual renewal fee. Diplomates who are not in good standing by March 1<sup>st</sup> **will lose the right to use the ABIH certification designations.** Diplomates whose certification has not expired can reinstate by paying back renewal and reinstatement fees. This action will apply beginning with payment of 2004 renewal fees.

#### \* Applicant Credit for Work Experience Accumulated Prior to Completing an Acceptable Degree

Also approved was a motion to allow an applicant with a bachelors degree that does not meet the required science content to accrue experience credit at the professional level concurrent with pursuing academic science credits to meet the educational eligibility requirements.

#### \* Proposed Changes to the Certification Maintenance Policy

The Certification Committee is proposing to cap the number of Certification Maintenance points awarded for writing items for the question bank at 5 points/year. A Diplomate receives 1 CM point/5 questions.

Expanding on a proposal from the previous meeting, podium, cross over session, roundtable and poster presentations of at least 20 minutes at conferences that require a peer reviewed selection process will receive 1 CM point in Category 7/Other.

Comments on these two proposals received by September 1, 2003 will be considered by the Committee prior to the September 13-14 Board meeting.

#### \* Governance

Recognizing that volunteer Directors have limits on the amount of time they can devote to Board efforts, ABIH is in the process of reviewing the way it governs itself.

A Board Governance Task Force was asked to explore various governance models in order to determine whether a change in the way the ABIH governs itself would enable the Directors to become more effective in determining what the Board needs to deliver, to whom and at what cost. Under consideration is the Carver Policy Governance® model. In particular, this model addresses board job design and the board-management partnership.

#### \* Board Change Over

At the conclusion of the March Board meeting, six Directors completed their terms of office. Harry J. Beaulieu, PhD, CIH, CSP, Don W. Harvey, CIH, CSP, Thomas A. Hethmon, CIH, ROH, Kirby P. James, CIH, ROH, Rosemary E. Patnode, CIH, CSP and Ana M. Prieto, Esq., CIH completed six years of service on the Board.

Chris Laszcz-Davis, CIH continues as Chair of the Qualifications Committee which deals with applicant education and experience issues and Barbara C. Hargis, CIH, CSP as Chair of the Examination Committee. The CM Committee Chair passes from Don Harvey, CIH, CSP to Norman W. Henry, III, CIH.

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## ABIH Board of Directors

<b>Chair</b>	Jimmy L. Perkins, PhD, CIH University of Texas at Houston
<b>Vice-Chair</b>	Frieda Fisher-Tyler, CIH Delaware Department of Public Health
<b>Secretary</b>	David M. Gioiello, Jr., CIH, CSP Industrial Health & Safety Consultants
<b>Treasurer</b>	Bruce A. Karas, CIH, CSP, ROH Coca-Cola Fountain
<b>Directors</b>	Buck Cameron, CIH Center to Protect Workers' Rights
	Barbara J. Dawson, CIH, CSP E.I. DuPont de Nemours & Co., Inc.
	Alice Greife, PhD, CIH Central Missouri State University
	L. Faye Grimsley, PhD, CIH Tulane University
	Barbara C. Hargis, CIH, CSP Los Alamos National Laboratory
	Norman W. Henry, III, CIH E.I. DuPont de Nemours & Co., Inc.
	Lawrence D. Kornreich, PhD, CIH Enviro-Sciences, Inc.
	Chris Laszcz-Davis, CIH The Environmental Quality Organizations, LLC
	Peter S.J. Lees, PhD, CIH Johns Hopkins University
	Michael A. Miller, CIH Navy Environmental Health Center
	Brenda Pittman, CIH, CSP Oregon Department of Transportation
	William J. Pependorf, PhD, CIH Utah State University
	Philip S. Stern Colorado Project/TIP, Inc.
	Bonnie L. Weeks, CIH Wellesley College
	Dee Woodhull, CIH, CSP Organization Resources Counselors, Inc.

## CM Course Approval Numbers

CIHs/CAIHs can now find CM course approval numbers at the ABIH website ([www.abih.org](http://www.abih.org)). After entering the ABIH website, click on Certification Maintenance, then CM Course Database Search. Approval numbers can be located by searching for the course name, sponsor, date, city or state.

Remember, the AIHce, PCIH and their approved PDCs, regulatory driven asbestos, hazardous waste and lead courses do not require approval numbers. Thanks to the ABIH Webmaster, Ed Bartosh, for making this search possible.



### "Lost" CIHs

The following individuals were due to report for certification maintenance by February 1, 2003, but we have been unable to locate them. We have listed last known employer and state.

Hannah Kalyani Johnson  
Zellweger Analytics  
Schaumburg, IL

Jon H. Lauterbach  
Intel Corporation  
Chandler, AZ

Gary Wayne Mechler  
Lyondell Petrochemical Co.  
Houston, TX

Patrick Murphy  
Intel Corp.  
Chandler, AZ

Kenneth M. Reinhart  
BEM Systems  
Plainfield, NJ

Mahendra Roychowdhury  
Raytheon Systems Company  
Sherman, TX

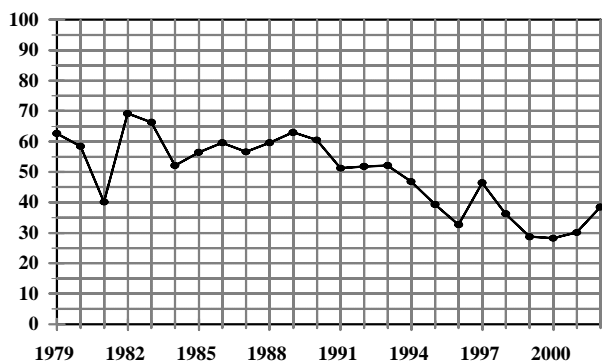
John G. Stevens  
Nortel  
Nepean, Ontario, Canada

**If you know where these CIHs are, please write, call, fax or email us with their current locations.**

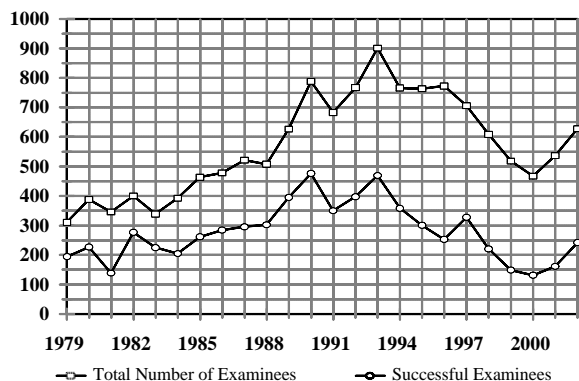


## Examination Statistics

Through the 1990s, the American Board of Industrial Hygiene (ABIH) saw a steady decline in the percentage of examinees passing the Comprehensive Practice Certified Industrial Hygienist (CIH) examination. There has been considerable discussion about this trend both within the Board and in the industrial hygiene community in general. In an attempt to understand the significance of these observations and possibly identify likely causes, the Board has looked at the available data and has implemented a post-exam survey of recent examinees.



**Comprehensive Practice Exam Pass Rate**



**CIH Candidates**

From a peak of 901 examinees in 1993, there was also a drop off in the number of certification candidates through the late 90s. There appears to have been an upswing in numbers of candidates the past two years, but it's a little early to tell if this is an upward trend or only a temporary spike.

Although the percentage of examinees passing the CIH exam for the past eight years has generally been in the 30s, a closer look at the data indicates that the percentage of *individuals* ultimately passing the exam is considerably higher. This indicates that many of the successful candidates need to take the exam more than once to achieve certification. For example, Table 1 below shows the percentage of examinees who passed in 1995 was 39.4%. But if you follow those examinees over the years, you find that 63.6% of the people who took the CIH exam in 1995 have ultimately passed and become CIHs. This is for individuals - not for tests taken. As an illustration, if two candidates take the exam five times each and one eventually passes, that comes out as 50% here (50% of the *candidates*), even though only 10% of the *attempts* were successful.

The ultimate pass rate for each year since 1995 has been decreasing. This is consistent with the fact that fewer of the unsuccessful candidates have repeated the exam in more recent years, with 2002 (the first year that examinees could take the exam twice within one year) obviously having few candidates who have retaken the exam so far. Of all of the candidates that have taken the Comprehensive Practice Examination from 1995 on, 54.8% have passed to date. It would be reasonable to expect this number to increase in the future as more previously unsuccessful candidates retake the exam.

**Table 1. Pass Rates vs. Ultimate Pass Rates**

Year	1995	1996	1997	1998	1999	2000	2001	2002	Overall
Pass Rate	39.4%	32.7%	46.5%	36.3%	28.8%	28.3%	30.2%	33.6%	35.1%
% Who Eventually Passed	63.6%	57.8%	58.9%	50.1%	45.8%	49.5%	45.7%	38.5%	54.8%

We also looked at the educational backgrounds of the candidates who have taken the Comprehensive Practice Examination in 2001 or 2002. As would be expected, candidates who have had formal training in industrial hygiene or related fields have been more successful on the exam than candidates who have little or no formal coursework in IH. As can be seen in the accompanying table, candidates with a master's degree in industrial hygiene were the most successful on the exam, followed by candidates with

bachelor's degrees in IH (and no graduate degree in IH). Going back to 1995, nearly 63% of candidates with an IH/EHS degree have passed, compared to about 51% of candidates with no degree in industrial hygiene or environmental health and safety.

It is the Board's belief that the requirement that candidates have specific industrial hygiene training will help improve both the non-

IH-degree candidates' preparedness to function as professional-level practitioners in the field and their performance on the exams as well. The Board began phasing in these requirements in 2001 (see the "Candidate Handbook," available on the web). The requirements can be met through college courses, PDCs, or other acceptable formats.

Beginning with the Spring, 2001 exams, ABIH has mailed post-exam surveys to examinees. The survey contained questions about the candidates' work experience, how and how long they prepared for the exam, and what their primary study materials were. Of the 970 examinees in 2001 and 2002, 591 (60.9%) have responded (for which the Board is very grateful). The pass rate was 48% for the respondents, compared to 31% for those who did not participate. (Surveys were mailed out and frequently returned prior to informing candidates of their test results.)

As is the case with any survey, the information is based on self-reporting, and is therefore subject to different levels of interest in the project among participants (particularly in the area of listing study materials), the accuracy of participants memories after going through the exam and exam preparation process (particularly in the area of amount of time spent preparing for the exam), and subjective impressions. In other areas, such as type of employer, recent changes can affect the results. For example, if a candidate worked in an OSHA program for five years, but three months before the exam joined a consulting firm, they would likely list their "type of employer" as "consulting," even though the majority of their experience came in an OSHA program. Also, a pass rate was 48% for the respondents, compared to 31% for those who did not participate indicates that the respondent population is not completely representative of the entire candidate population.

Among the more subjective areas was type of position: primarily management vs. primarily field work. If a hygienist has a title of "Manager of Health and Safety," but is the only EHS professional on site and is doing the actual workplace evaluations, that person should probably list the position as "primarily field work," regardless of the title. Interestingly, 51% of respondents listed themselves as doing "primarily management" in 2002 compared to 27% in 2001. Among those listing themselves as doing "primarily management," the pass rate for 2001 and 2002 combined was 44% compared to 52% for those listing themselves as doing "primarily field work." For 2001 alone, the difference was more pronounced, with 29% of those judged to be in primarily management positions passing and a pass rate of 42% for people in positions judged to be primarily field work. The take-home message there appears to be that candidates whose experience is a little light in field work should expect to do additional preparation work in those areas.

Among the industry sectors in which the examinees are working (again, keeping in mind the limitations of the survey and data-reporting), the highest pass rates were for those reporting their employers as government (57%), military (54%), and utilities (57% - but only 21 individuals). Other sectors generally ranged from

40% to about 50%, but many were based on small sample sizes. (For example "healthcare" had only 12 individuals, "mining/metals/steel" had only 13, and "construction" had only 16.)

For those not reporting any duties other than "traditional IH," (i.e., reporting safety and/or "environmental" responsibilities as well), the pass rate was 53%, compared to 47% for the rest of the respondents. Interestingly, only 13% reported having no "non-IH" duties. There were 75% who reported also having safety responsibilities and 48% who reported having "environmental" responsibilities. Obviously, some respondents reported having duties in all three areas.

We asked examinees to list their primary study materials and got responses ranging from listing none to listing 20 text books. Some simply wrote "books." That makes the nature of this section even more qualitative than the other sections of the survey. There are many possible interpretations of the data: did passing candidates really study from more sources, or were they just more diligent at reporting study materials on the survey form? If they listed "IH references," does that mean *The Occupational Environment: Its Evaluation and Control*, (the "White Book") and *Fundamentals of Industrial Hygiene*, or something else? (They went into the database as "other texts.") Keeping those limitations in mind, the trends we did see are reported in Table 2.

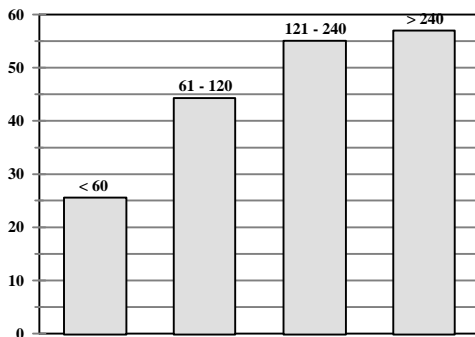
**Table 2. Pass Rate by Education**

ABET IH Master's	67/118 = <b>56.8%</b>
Any IH/EHS MS (incl. ABET)	131/261 = <b>50.2%</b>
BS in IH, no MS	19/43 = <b>44.2%</b>
Any IH/EHS Degree (BS/MS/PhD)	150/304 = <b>49.3%</b>
No IH/EHS Degree	252/666 = <b>37.8%</b>

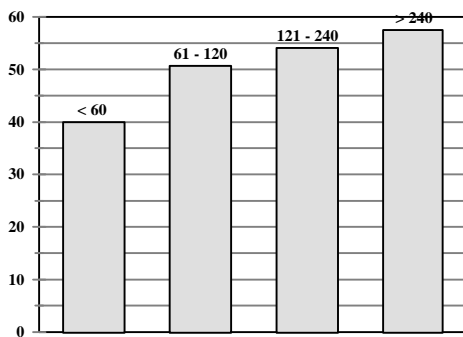
**Table 3. Pass Rates vs. Reported Study Materials**

Study Reference or Resource	Pass rate among those who Reported Using the Reference or Resource	Pass rate among those who <b>Did Not</b> Report Using the Reference/Resource
<i>Fundamentals of Industrial Hygiene</i>	52%	48%
<i>Industrial Ventilation, A Manual of Rec. Practice</i>	55%	47%
<i>The Occ. Environment: Its Evaluation and Control</i>	52%	40%
Review course materials or “study guides”	53%	44%
Any toxicology reference	57%	48%
Calculations/equations book/workbook	56%	46%
Exam preparation software	47%	51%

Most other sources were not reported with enough frequency to be listed here. It should be kept in mind that this is very qualitative information and should be viewed as only general observations.



**Review/Prep Course Participants  
Pass Rate vs. Preparation Time (Hrs)**



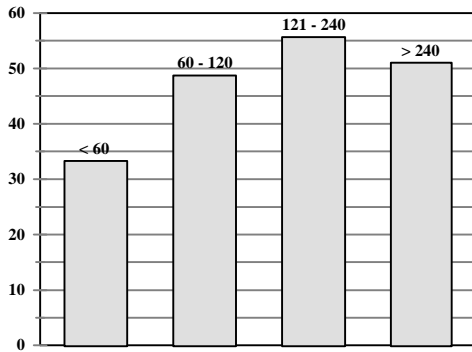
**Review Course Materials/Study Guide Users  
Pass Rate vs. Preparation Time (Hrs)**

Informal study groups were less popular than might have been expected, with only 12% of respondents reporting having participated in one. The most common meeting frequency reported was once per week. As was seen with other preparation categories, the amount of time spent in preparation was an important factor in success, not surprisingly, for candidates who participated in study groups. The pass rate for respondents who participated in a study group and reported spending less than 120 total hours in preparation was 29%. The pass rate for study group participants who reported spending at least 120 hours in preparation was 46%.

The survey asked examinees if they attended a review course or examination prep course. 59% of those who responded to the survey indicated that they had attended a review/prep course, and 49% of them passed, compared to 47% for those who did not report attending a review course. When this group is broken down by total preparation time, the pass rate for those who reported attending a review course but studying less than 120 total hours, the pass rate was 36%. For those who reported attending a review course and who reported studying between 120 and 240 hours, the pass rate was 53%. And for those attending a review course and studying for over 240 hours, the pass rate was 58%. The numbers for 2002 alone (separate from 2001) are even more pronounced, with a pass rate for review course participants who reported studying less than 120 hours of only 32% compared to a pass rate of 50% for those review course participants reporting 120 hours or more of preparation time. Similar trends were seen for candidates who reported using review course materials and/or study guides.

These data are hardly surprising. They suggest that those candidates who are attending review courses or using study guides, but doing little else to prepare for the exam are not generally having much success. This reinforces the belief that exam preparation courses and study aids, in addition to helping review the body of knowledge in the field, are most beneficial when used to help identify candidates' areas of relative strength and weakness. They help identify areas where the

candidate needs to put in extra time and study effort, but are not a means to success on the CIH exam by themselves. There are no shortcuts to putting in the study time required for such a broad and challenging examination. This point is illustrated in the final chart which shows overall pass rates for different amounts of preparation time. As would be expected, the candidates who have greater success on the CIH exam are those who put in the time preparing.



**Overall - Pass Rate vs. Preparation Time (Hrs)**

There are several messages that seem to come out of the overall data: While it might take more than one attempt for many candidates, the overall pass rate for those who stick with it is much higher than the perceived “30% pass rate.” There appears to be no shortcut to putting in adequate preparation time. Candidates who have been involved more heavily in administrative work and have less field experience should make up for it with additional preparation or by getting more field experience.

It is the Board’s hope that this information will help candidates to gauge their preparation for the certification exam and will help the IH community overall understand some of the issues relating to the candidate success rate on the exam. As always, the Board welcomes your feedback on this or other certification issues. Please contact us with any comments or questions at 6015 W. St. Joseph Hwy., Suite 102, Lansing, MI 48917, abih@abih.org, or 517-321-2638.



**Not Certified**

In response to inquiries, the American Board of Industrial Hygiene reports that the following individuals have never been certified by the Board and are not authorized to use the designations Certified Industrial Hygienist/CIH, Certified Associate Industrial Hygienist/CAIH or Industrial Hygienist In Training/IHIT.

Charles N. Carter  
Carter & Associates  
Powell, TN

Richard Scott  
Formerly of TRC Environmental Corp.  
Irvine, CA

**Accreditation**

The Council of Engineering and Scientific Specialty Boards (CESB) re-accredited ABIH’s Certified Industrial Hygienist program through December 2007. The CIH program was initially accredited in 1999 and the Certified Associate Industrial Hygienist received accreditation approval in 2002.



**2002 ABIH Examination Results**

Based on the outcome of the 2002 examinations in Australia on December 1, 2002, the American Board of Industrial Hygiene announces the name of the new certificate holder. These results were unavailable at the time the November 2002 Newsletter was printed.

Michael H. Kottek, CIH



**Computer Delivery of ABIH Exams**

The ABIH is looking at the possibility of changing from the current paper-and-pencil certification examinations to computer-delivery of exams beginning in 2004. Increased competition among vendors has improved several issues of concern. Specifically, costs have come down, quality and reliability (i.e., system performance) have improved and availability has improved. In addition, vendors report that the immediate, significant decline in the number of examinees traditionally seen when certification exams move from paper-and-pencil to computer-delivery is no longer as pronounced as it once was.

It is expected that the cost for computer-delivery of examinations will be approximately \$100 more per examinee than the current cost. While no decision has been made yet on an increase in exam fees, it is expected, since it would greatly reduce or eliminate travel costs as well as time away from work, home, and family for many candidates, an increased exam fee would not be an impediment for most candidates. The Board is currently reviewing proposals, will be visiting a few test centers, and will be making a decision on this issue soon. If you have any comments or suggestions, please forward them to the Board by either e-mail or regular mail through the Lansing office.



### **Dallas AIHce Board Forum**

The Board Forum is scheduled for Wednesday, May 14, 2003 from 10:00 am - 12:00 noon. Board members will present updates on Board activities and answer questions from Diplomates and others interested in certification.

### **Fall 2003 Board Meeting**

The next Board and Committee meetings will be held September 13-14, 2003 at the time of the PCIH in Rancho Mirage, CA. Anyone with issues that need to be addressed by the Board should contact the Executive Director, Lynn C. O'Donnell, CIH at (517) 321-2638 or [abih@abih.org](mailto:abih@abih.org).



## Accounting Resources

The resources required to meet the purpose of the Board include the financial support of the Diplomates, applicants and examinees; the full-time staff in Lansing, Michigan headquarters; and the time and talent of the Board members and others involved in Board activities.

## Financial Resource

The 2002 audited financial statement, prepared by Lewis M. Aronow, CPA, is presented below. The accompanying notes to the statement are maintained on file at the ABIH office in Lansing, Michigan.

### AMERICAN BOARD OF INDUSTRIAL HYGIENE

#### STATEMENT OF FINANCIAL POSITION

DECEMBER 31, 2002

#### ASSETS

#### Cash

Merrill Lynch-WCMA Account	\$370,152
Fifth Third Bank-Savings Account	<u>34,140</u>
Total Cash	\$404,292

Accrued Interest Receivable	2,367
Prepaid Expenses and Deposit	14,160

Office and Computer Equipment	149,614
Less: Accumulated Depreciation	<u>88,292</u>
	61,322

Investments - Securities	528,581
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Investment - CCHEST Joint Venture	59,651
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Trademark Costs, Net of Amortization	<u>23,434</u>
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TOTAL ASSETS	<u>\$1,093,807</u>
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#### LIABILITIES AND NET ASSETS

#### Current Liabilities

Deferred Dues and Roster Fees	\$338,050
Accounts Payable	1,001
Accrued Expenses	<u>3,482</u>
Total Current Liabilities	\$342,533

<u>Unrestricted Net Assets</u>	<u>751,274</u>
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TOTAL LIABILITIES AND NET ASSETS	<u>\$1,093,807</u>
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### AMERICAN BOARD OF INDUSTRIAL HYGIENE

#### STATEMENT OF ACTIVITIES AND CHANGES IN NET

#### ASSETS

YEAR ENDED DECEMBER 31, 2002

#### Revenues

Application Fees	\$104,189
Examination Fees	160,610
Dues	490,865
Roster Fees	5,260
Net Investment Income	17,949
CM Worksheet Late Fees	5,200
Seals, Videos and Other Income	<u>15,538</u>
Total Revenues	\$799,611

#### Expenses

Meetings - Board and Committee	\$41,293
Regional Examination Administration	4,823
Examinations	33,937
Executive Director's Office	628,825
CESB Accreditation	4,500
Loss on Disposition of Investments	36,247
Net Unrealized Loss on Investments	<u>67,091</u>

Total Expenses	<u>\$816,716</u>
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<u>Equity in Net Income of CCHEST Joint Venture</u>	<u>6,107</u>
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<u>Decrease in Unrestricted Net Assets</u>	( 10,998)
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<u>Unrestricted Net Assets - January 1, 2002</u>	762,272
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<u>Unrestricted Net Assets - December 31, 2002</u>	<u>\$751,274</u>
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