Dear Colleagues,

I start by apologizing because this issue is a bit long; however, many of you will be on vacation and this will be interesting reading material 😊. It has been 6 months since the last issue and many exciting news, which should be included, kept arriving (for this, I thank the many contributors).

This year, once more, a former IOHA President – Alex Burdorf – was honoured with the William P. Yant Award, and another former IOHA President – Michel Guillemin, had the honour of being selected to deliver the Jeffrey Lee Lecture, at the AIHCE 2006. As most of you know, Jeff – a great occupational hygienist as well as a dear and regretted friend - was one of the founding fathers” of IOHA and its first President. I would like to say that I was happy to participate in the AIHCE 2006 in May in Chicago; great Conference and a unique opportunity to meet colleagues and old friends.

IOHA continues to act internationally in promoting occupational hygiene and bringing its contribution whenever and wherever required; some examples are presented in this issue. IOHA actively participates in the work of the WHO Collaborating Centres in Occupational Health as can be seen on the notes from their last meeting in Stresa.

The IOHA National Accreditation for Recognition (NAR) Committee continues its valuable work, which is key to ensure universal harmonization in the requirements for occupational hygiene practice; the scheme of the Australian Institute of Occupational Hygienist (AIOH) was the third to receive IOHA recognition and we must congratulate them for this achievement. The value and competence of IOHA is being increasingly recognized, including by companies, and one example is their trust in IOHA, reflected in Ugis Bickis’ consideration (see article in this issue): “Industry sees IOHA as fulfilling the role of defining occupational hygiene competencies globally”.

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Although we hope that there will be no avian influenza pandemic, this is still a potential threat to humanity and IOHA continues to contribute to this topic.

Member associations continue their efforts, at the national level, towards promoting and enhancing the occupational hygiene profession. The prestigious ICOH Conference took place in June 2006 and, on this occasion, the Italian Industrial Hygiene Association organized a number of successful events in our field. The presentations and the final report of the BOHS and BSOH meeting on “REACH”, in Brussels, demonstrate the opportunities for our profession created by this important European legislation. Once more, my request for continued information from member associations 😉

The visibility of our profession increases; nevertheless, I believe that we still need amplified efforts towards its wider promotion and towards ensuring its practice at a high level, everywhere.

During the month of June, important international meetings and conferences took place. You may see, under News from WHO, the decisions by the Global WHO Network of Collaborating Centres in the last meeting in Stresa, Italy; their continuous interaction in deciding on most suitable programmes (great focus on prevention!), establishing partnerships and joining efforts certainly strengthens them all and avoids duplication of efforts, thus optimizing the available resources.

Under News from the ILO, you may see important developments during the ILO 2006 Governing Body Conference, including a Resolution Concerning Asbestos, which will certainly have an impact in tackling this serious problem worldwide. I take this opportunity to express great appreciation for the outstanding and dedicated work of Jukka Takala, as Director of ILO SafeWork, and to congratulate him on his new post as the Director of EU-OSHA. Takala’s initiatives and achievements in the ILO definitely gave a great impulse to occupational health and safety around the world.

Occupational hygiene is prevention and prevention has positive results. On this issue we have a very interesting article demonstrating the impact of the implementation of preventive measures in Japan. Such studies are necessary as they contribute to make decision-makers aware that preventive interventions do bring benefits, thus motivating them to act more actively concerning prevention in the workplace.

As usual, I ask readers to kindly send me some feedback, in the form of suggestions, contributions and constructive criticism. It is important to hear from you in order to keep our Newsletter interesting and useful.

I wish you all a very nice Summer (or Winter).

Best greetings to all

Berenice Goelzer
E-mail: berenice@goelzer.net

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Awards at the AIHCE 2006, Chicago, Illinois, USA

William P. Yant Award Lecture: “The Contribution Of Occupational Hygiene To Public Health: New Opportunities To Demonstrate Its Importance”

by Alex Burdorf, Department of Public Health, Erasmus MC, University Medical Center Rotterdam, Rotterdam, The Netherlands

Abstract

In most developed countries, hazardous working conditions are competing for public attention with other risk factors of population health, for example high blood pressure, obesity, and lack of physical activity. In studies on the global burden of disease the relative importance of occupational risks is invariably estimated to be below two percent. In analyses on the cost-effectiveness of preventive interventions, control measures in the workplace are often rated as expensive. Thus, there is a clear need to better demonstrate the impact of hazardous working conditions on public health.

In the past few years, methods have been developed that provide new insights into the adverse consequences of occupational risks on workers’ health. In the traditional analysis, the risks of work-related health problems are demonstrated by an increased occurrence of specific diseases among exposed workers. These measures may not be sufficient for conveying the impact of these risks on public health. The assessment of work time lost due...
to risks at work, or alternatively expectancy of healthy working life, may be more useful to decision makers to appreciate the necessity for workplace interventions.

A Markov process can be used to model the long term consequences of occupational risks for work time lost during the average working life. The first example demonstrates that among personnel in nursing homes, a high physical load may result in a total loss of 140 weeks (6.6 percent of a 40-year working career). A second example illustrates that exposure to whole-body vibration may account for a reduction in healthy work life expectancy of almost 25 percent in the occupational groups with the highest exposure levels. A third example will show that timely intervention in working conditions, most notably physical load and work pressure, may contribute considerably to increase labor force participation among elderly workers. This latter example can bring occupational health back into the frontline of the public debate on the demographic paradox of coping with ageing populations and early withdrawal from the labor market among elderly workers.

A comprehensive survey on the situation of Occupational Hygiene and its education and training throughout the world has not been done, so it is not possible to give a clear and unbiased picture of this problem. However an informal collection of information from a network of teachers in this field.
from several countries has been carried out recently and will be presented and commented in this paper.

In the field, Occupational Hygiene responsibilities are frequently mixed with other ones such as safety, environmental protection or even ergonomics. Therefore the curriculums in the educational programs are including more and more topics related to these fields.

At the AIHCE 2006: Michel Guillemin

It is obvious that a profession has to adapt to its environment to protect its ecological niche, but the changes in the working world and in our society are so important and so rapid that the threat is becoming so serious that the adaptation may be in the mid-term a transformation. The specificity of our field is now considered as too narrow and may be too “academic” so that less and less companies can afford this type of experts. The development of simple tools to assess and control the occupational risks has been done to fit the needs of small and medium enterprises (simplicity and cost) and do not require a long training to be used. This is certainly good at a global level that prevention can be widespread and can concern as many people as possible, but there is a risk that the hygienists’ expertise is estimated not necessary anymore.

Some people argue that the emerging problems such as the psychosocial ones (stress, burnout, harassment, etc.) should be now the priority in Occupational Health, also because the “traditional issues” (those belonging to the core knowledge of our profession) are more and more under control. This vision is biased by the fact that, apparently the “old” problems (lead, silica, solvents, etc.) are better managed, but we all know that a lot of “traditional” topics are not yet under appropriate control, mainly due to our huge lack of knowledge. Moreover new issues are emerging which perfectly fit our field of experience (nanoparticles, bioaerosols, new materials, etc.) and which proves that other problems than the psychosocial ones may also be quite relevant and should be studied professionally.

The pessimistic scenario for the future of Occupational Hygiene and or its place in the universities and educational organizations is that it will be “phagocytized” by another field (or “dissolved” in it) and the positive scenario is that it will find its place, thank to the emerging issues mentioned above, by bringing original strategies to assess their risks and to keep them under control. The future of Occupational Hygiene depends on the way the professionals will convince the stakeholders of the importance of this science and its usefulness for our society through a healthy workforce in healthy companies.

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This year’s Jeff Lee lecturer – Dr. Michel P. Guillemin – a past IOHA President and IOHA Board member - has been a leader in the promotion and development of occupational hygiene in Switzerland and worldwide, particularly in French-speaking countries.

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IOHA and the WHO Collaborating Centres for Occupational Health

Notes from the 7th Meeting of the WHO Collaborating Centres for Occupational Health in Stresa, Italy, 8 – 9 June 2006

by David M. Zalk, IOHA WHOCC Advisor  E-mail: zalk1@llnl.gov

It was fitting that, as 32 countries gathered in Germany for the beginning of the World Cup, just to the south in northern Italy, there was a different gathering of 32 countries. These countries were represented by 120 occupational health professionals for the 7th Meeting of the WHO Collaborating Centres for Occupational Health (WHOCC), which was held in Stresa, Italy, by Lake Maggiore, and organized by the International Centre for Pesticides and Health Risk Prevention. It was quite an honour to represent IOHA and our wonderful profession along with my colleague Tai Wa Tsin, the current IOHA President. The role of our profession in this international context has come far from the 5th meeting held in Chiang Mai, Thailand in 2001. The occupational hygiene profession is now considered to be the standard bearers of Primary Prevention; the essence of the 2006 – 2010 Work Plan which was ratified with much
hard work and intense discussions, amidst the lakeside breezes, with a glass or two of Pinot Nero and Bonarda from the Lombardy Region in hand as a reward.

This highlighted role did not come without strapping on our boots and producing quality outcomes on the pitch. The role of IOHA became apparent when we – those of the Board of Directors, our Organizations, and their altruistic professionals members – substantially fulfilled our commitments within the 2001 – 2005 Work Plan. Our commitments consisted of 12 projects within 6 designated Task Forces and our co-Chair responsibilities from Task Force 10; Preventive Technologies. In association with IOHA 2005 in the Pilanesberg National Park, South Africa, the 36 members of the WHOCC Advisory Committee met in Johannesburg in the days prior to review the successes of the 2001 – 2005 Work Plan and to develop the construct of the 2006 – 2010 Work Plan. Task Force 10, one of the homes for the development of the Control Banding concept, was designated as an example of success in that it had broad CC involvement, benefited developing nations, had substantial impact, had both global and regional emphasis, and that it was sustainable. This example of accomplishment assisted in bringing forth the collective agreement that successful occupational health programmes required a commitment to Primary Prevention; the essential protocol of Occupational Hygiene.

The Advisory Committee agreed that the 2006 – 2010 Work Plan should have fewer focus areas than the 15 Task Forces in the previous plan. With this in mind, six Activity Areas (AAs) were created with a major focus on AA3; Practical approaches to identify and reduce occupational risks. Part and parcel to AA3 was the necessary coordination and collaboration with AA4; Education, training, and technical materials. As part of this 7th meeting to finalize the 2006 – 2010 Work Plan, IOHA found itself with many essential projects commitments and in the role of supporter for numerous projects that involve examples and products of the Control Banding strategies. The IOHA projects in AA3 include: Demonstration and evaluation of Control Banding applications for silicosis prevention and control; a joint IEA/IOHA project toward the development and integration of Ergonomics toolkits; and a joint International Accident Prevention Association (IAPA)/IOHA project for the development of injury prevention toolkits. In AA4, IOHA will again support the development and sustainability of occupational hygiene graduate programmes with multiple levels of assistance offered to the Sri Ramachandra Medical College & Research Institute in Chennai, India. Another important outcome of this 7th Meeting went beyond the Work Plan, it was the ratification of the Declaration on Worker’s Health. This Declaration, the Johannesburg meeting report, the 7th Meeting report, the compendium of 2006 – 2010 projects, and more can be found at the WHOCC website; http://www.who.int/occupational_health/network.

My experience has taught me that it is one thing to say that we will fulfill our commitments, but quite another to actually follow through. It can also be said from experience, not just mine but from those who have reaped the benefits from the 2001 – 2005 Work Plan, that there is indeed something special about those who are in our profession - we actually do what we say. IOHA is now in a unique position to truly elevate our profession globally within the occupational health realm. We have said that we will accomplish much in the five years ahead of us; it will take continuity and teamwork from our professional organizations to achieve all of this.

As the World Cup and its beautiful game began, our commitment to the future of occupational health internationally was finalized. In order to protect the 2.7 billion workers globally that do not have the benefit of professionals such as ourselves, we must seek to interweave Practical Primary Prevention into the greater Occupational Safety, Hygiene, and Health programmes, and in so doing, elevate our game and our beautiful profession.

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**Global Network of the WHO Collaborating Centres in Occupational Health - Planning Meeting at Stresa, June 2006**

By TW Tsin, IOHA President (sent before the meeting took place) E-mail: twtsin@labour.gov.hk

From 8th to 9th June, WHO Collaborating Centres for Occupational Health will hold the 7th Global Meeting at Stresa, Italy. Thanks to the organizer, the International Centre for Pesticide Safety and Health Risk Prevention (ICPS) for choosing the site. Stresa is a charming and aristocratic town. It is a nice place for meeting.

In preparation for the meeting, a draft 2006-2010 Work plan has been developed and the Collaborating
Centers have contributed projects in six Activity Areas as below:

AA1: Global situation analysis
AA2: Evidence for action, and national policies and action plans
AA3: Practical approaches to identify and reduce occupational risks
AA4: Education, training and technical materials
AA5: Development and expansion of Occupational Health Services
AA6: Communication and networking

The main purposes of the Meeting will be to share the achievements of the 2001-2005 Work plan and to work together on the projects in the 2006-2010 Work plan.

In the preliminary review, IOHA would identify and match with partners from the collaborating centres or other non-governmental organizations in the preparation of information and promotion of occupational health and hygiene. There are at least five projects that may be of interested. Most are under AA3.

On the other hand, we shall also continue to promote the concept of control banding and expand it to many areas other than the general chemical control toolkit. IOHA will work together with HSE, UK, ILO and WHO for the development of the silicosis control toolkit. It is expected the first draft guideline will be available by end of 2007.

A similar collaborative activity will be carried out with our other partner – the International Ergonomics Association (IEA) by extending the control banding concept to ergonomics. More ideas will be developed during the coming IEA 2006 at Maastricht, the Netherlands, from 10 -14 July 2006. A joint IOHA/IEA workshop at the IEA Congress will identify the current approaches, to exchange materials and programmes to enable a common approach to be developed by 2007. The announcement of the joint position might well be promoted in IOHA 2008 Conference.

There is another initiative of extending the control banding to safety practice in workplaces. There will be the first Safety and Control Banding Workshop led by Dr. David Zalk and Dr. Ton Spee at the Delft University of Technology, the Netherlands tentatively from 12th to 13th September 2006, back to back with the coming IOHA Board Meeting. Distinguishable speakers will be invited for presentation. Further details may be announced in the IOHA website soon. This workshop is the initial step of the project to be included in Activity Area 3 under the WHO work plan 2006 to 2010.

There are about 150 projects under the six activity areas. IOHA would try to offer support to the other activity such as the Global Situation Analysis (AA1), development of National Polices (AA2) as well as in the expansion of Basic Occupational Health Services (AA5) when expert knowledge on occupational hygiene is required in the projects proposed by the organizations in the nation or the region.

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IOHA Recognition of National Occupational Hygiene Certification/Accreditation Schemes

News from the Committee

by Tom Grumbles, Chair of the IOHA National Accreditation Recognition (NAR) Committee
E-mail: Tom.Grumbles@us.sasol.com
and T W Tsin, IOHA President

Congratulations to the Australian Institute of Occupational Hygienists (AIOH) for becoming the third institution whose scheme achieved the international recognition accorded by the IOHA, through its National Accreditation Recognition (NAR) Committee. The Australian scheme has been reviewed through a detailed process to determine whether it meets the requirements for international recognition and, by unanimous recommendation of the committee, has been awarded this recognition. This is the third scheme recognized so far – after the schemes of the American Board of Industrial Hygiene.
(ABIH) and that of the British Occupational Hygiene Society (BOHS). A consistent quality standard certification scheme is essential to uphold performance in occupational hygiene practice for the protection of workers’ health.

Since the past two decades, globalization has resulted in a rapid growth in the need for skilled occupational hygienists around the world. To facilitate the recognition of the significance of certification or accreditation, there is a need for some global harmonization of the principles and standards of Occupational Hygiene (OH) accreditation programmes across the world.

In 1999, IOHA sponsored an International Workshop on Certification and Registration of Occupational Hygienists. The existing occupational hygiene certification and registration Boards were invited to attend the Workshop. After a long discussion and hard work to reach agreement on the required criteria, the IOHA accreditation procedure for the recognition of national occupational hygiene certification schemes was formally launched in 2000. The aim is to promote global deference for and recognition of Occupational Hygiene Certification at the country level. Interested national organizations may apply to the IOHA NAR Committee. Details of Guidelines to Applicants are given at the IOHA web site: www.ioha.net. There are currently three other national schemes under review.

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Global Businesses Endorse Merits of IOHA’s Recognition of National Hygiene Accreditations

by Ugis Bickis, IOHA Board Member  E-mail: bickis@simpatico.ca

At this year’s AIHce (Chicago), Rohm&Haas CEO Raj Gupta’s keynote was on The 10 Commandments of Valuing EHS in a Global Business, with his Triple Bottom Line (aka The Three Pillars …) being Economic Growth, Social Responsibility and Environmental Responsibility. Perhaps particularly noteworthy to us, was Gupta’s Commandment of Fully-Staffed and Functional IH/EHS Organization. With the overall articulated objective being balanced performance across the 3 pillars, Occupational Hygienists should also take heed of this US$8 billion (2005 sales) company’s viewpoint that “we live in the era of risk management”.

Directly after his presentation, an IOHA-initiated side-meeting was held, to discuss a potential synergy between the needs/efforts of the global business and hygiene professional communities, to achieve a state where there is a universally-defined standard of competence.

Drawn from amongst the IOHA Board of Directors, the AIHA International Affairs Committee and “The Group” (as the industry ad hoc consortium calls itself), the 10 assembled hygienists were from France, Italy, Switzerland, Canada, the US, the UK, Australia, and Brazil.

From the industry’s standpoint, part of the present challenge stems from the fact that “history is littered with well-intentioned amateurs” and that, around the world, there presently are widely-varying degrees of competence found amongst hygiene practitioners. Industry does not wish to place itself in the position of needing to provide fundamental education in occupational hygiene nor conducting generic evaluations of professional competence. Furthermore, all would benefit if core competencies were addressed/accredited by a third party (i.e. independent both of the hygienists in any one nation, as well as industry). And, this would need to be self-sustainable, without the intervention of any one company. Industry sees the IOHA as fulfilling the role of defining hygiene competencies globally.

“The Group” (largely petrochemical and pharmaceutical company representatives) had already discovered how remarkable it was, once they sat down together to talk, how much they had in common. There was a similar sense amongst the 10 who sat down in Chicago.

Industry has an immediate need for fully-competent occupational hygiene professionals, drawn from the local population at diverse sites around the world, and active recruitment is under way – but, there is a paucity of hands. Academic institutions and professional organizations would like to enhance and expand the pool of existing hygiene practitioners – but, there is a paucity of funds.

The consensus was that, if the existing occupational hygiene profession development processes were packaged in a manner relevant to the industry of the future, and if IOHA were to continue expanding the coverage of its National Accreditation Recognition Scheme, industry would be better able to provide the staffing that it needs to meet its EHS commitments, and workers (globally) would be better protected.

Follow-up from this inaugural event is expected to occur in September, in conjunction with meetings of
IOHA Position on Protection of Front-Line Workers from Pandemic Influenza – Respiratory Protective Devices (RPDs)

by Ugis Bickis, CRBOH representative to IOHA Board
IOHA delegate to WHO RR&C meeting

Preamble

For some time, there has been concern/controversy associated with the position of some officials that items such as surgical masks are appropriate for use as respiratory protective devices (RPDs). This position in turn, stems from the perception by some, that influenza is not transmitted by the airborne route; furthermore, that there exists a barrier at a 1 m distance from the contagious individual which precludes their infecting others who are located any further than that.

The World Health Organization (WHO) held a high level meeting in Geneva on 2005.11.07-09, to discuss preparations for a pandemic of influenza. IOHA submitted a summary of its Position Paper at that time; that meeting was not intended to be technical, and the paper was therefore not considered in that venue.

On 6-8 March 2006 WHO hosted a Global Technical Meeting on the Early Containment Protocol (Rapid Response & Containment – RR&C) for Pandemic Influenza; IOHA was represented at that, by invitation from the WHO (with which it has official NGO status).

At this meeting, IOHA put forward some of the evidence supporting its position, summarized below. Although the draft RR&C documentation produced prior to this meeting referenced “masks” as RPDs, the document produced after this meeting contained no reference to “masks” (available online at: www.who.int/csr/disease/avian_influenza/guidelines/draftprotocol/en/index.html).

It appears that IOHA’s participation as a Technical Expert in the WHO meeting has helped to solidify the protection of front-line workers, and hence (also) the public at large, in the case of a pandemic.

It is hoped that the intense, high level attention focussed on worker protection as a result of preparations for a pandemic, and the consequent extension of some of the salient features of worker protection from contagion (fundamental to the professional practice of occupational hygiene), will also permeate to other domains involving worker protection from airborne hazards, including infectious agents.

In the meantime, IOHA member organizations, and their members, are encouraged to review their national pandemic preparation plans with respect to consistency with generally accepted principles and practices of occupational hygiene, bringing to the attention of their respective authorities any inconsistencies worthy of note.

Position Paper of the International Occupational Hygiene Association Regarding the Recommended Respiratory Protective Devices to be used by Front-Line Workers (Poultry and Health Care) in the Context of a Predicted Pandemic of Avian Influenza – Summary

To most effectively protect the public at large from a virulent and transmissible strain of avian influenza that (by general consensus) is likely to develop in the near future, it is necessary to minimize the exposure of two “front line” worker groups (FLWs) who are at greatest risk – poultry workers, who are in direct contact with the immediate source, and health care workers, who will be the first to encounter the ill (and contagious) members of the public. Once these FLWs become infected, they (in addition to
personally experiencing the direct consequences, and society thereby losing their valuable services at the outset) will transmit the disease (if contagious) further.

Although there are, generally, appropriate recommendations in place to minimize worker exposures by direct contact and exposure to droplets, it appears that some governmental agencies and professional organizations would seek to protect these workers (particularly, in health care) from airborne contagion by advising them to wear surgical masks.

There is a substantial body of literature which demonstrates that:

1. The water in exhaled particles quickly evaporates, leaving a respirable aerosol
2. Surgical masks, by virtue of their deficiencies, both in filtration capabilities and ability to seal to the wearer’s face, are ineffective in protecting the wearer from inhalation of such aerosols.

IOHA succinctly summarizes this literature, emphasizing those aspects that relate directly to the above two points and, on this basis, puts forward the position that those with responsibility for the protection of FLWs should be adopting a policy that includes:

1. An articulation of the criteria which lead to the donning of a respiratory protective device (RPD)
2. Training those who are likely to don an RPD in the use and limitations of RPDs; an emphasis should be placed on “fit” of the RPD to the face of the wearer.
3. Having available a supply of RPDs that have both the demonstrated filtration capabilities appropriate for the aerosol in question, and sizes appropriate for the population to be protected.
4. Prior to the use of these RPDs, undertaking an exercise in which each worker is able to don the most appropriate respirator, and optimize its “fit”; this would (ideally) be accompanied by an empirical demonstration of fit, either by exposure to a challenge aerosol that the worker would sense (should it occur inside the RPD), or by means of a measuring device that compares inside-RPD to outside-RPD aerosol concentrations.

The primary purpose of the present Paper is to provide:

1. A compelling rationale for protecting FLWs, as a front line of defence for society at large
2. A scientific basis for Meeting participants to arrive at the conclusion that it is inappropriate to recommend that surgical masks and/or procedure masks be used as Respiratory Protective Devices (RPDs).

Prior to the development and/or implementation of alternative/updated recommendations by participating agencies, various technical matters related to the selection and use of RPDs need be considered. IOHA would be pleased to prepare (upon request) a companion Position Paper on the Selection, Care and Use of RPDs for Infectious Aerosols, intended for a global audience.

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IOHA Sixth International Scientific Conference
IOHA 2005

Extracted from the full Report by David W. Stanton, IOHA 2005 Organizing Chair

The Conference incorporated the Third International Control Banding Workshop (3ICBW) and a planning meeting of the WHO Collaborating Centres in Occupational Health, which was held the weekend before in Johannesburg to coincide with IOHA 2005.

IOHA 2005 had a record number of presentations (156) at any IOHA Scientific Conference, had the record number of delegates (350) and the record number of countries represented (over 40). For the first time, the author biographical notes, abstracts, papers and presentations were added to an IOHA International Conference website.
The theme of IOHA 2005 was “Promoting Occupational Hygiene in Africa and Globally”. Several delegates from around Africa were sponsored by IOHA 2005 to attend a one-week course on “Fundamentals in Occupational Hygiene”, held in South Africa, and to attend the IOHA Conference. Twelve Professional Development Courses (PDCs) and a workshop on the “Promotion of Occupational Hygiene in Africa and Globally” were held at this Conference.

The full Report on the Conference (by David W. Stanton) is available online, on the IOHA website (www.ioha.net), and extensive information, including on the Scientific Sessions and on the Professional Development Courses, is available at: www.saioh.org/ioha2005.

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News from Members Associations

Occupational Hygiene at ICOH 2006, Milan, Italy: Sessions on Occupational Hygiene organized by AIDII (Italian Industrial Hygiene Association)

by T. W. Tsin, IOHA President

The IOHA Executive Board received an invitation from Professor Bagolucci, President of AIDII, to accompany their local scientific sessions on 14 June 2006. There was a fruitful discussion on the development of occupational (industrial) hygiene. IOHA President, Mr. TSIN, delivered an address at the beginning of the AIDII Board Meeting, thanking them for organizing the international events during the Congress.

Professor M. Guillemin gave a keynote lecture on “Occupational Hygiene: where from and to?” during a “semi-plenary” session on 15 June 2006 (summary of this lecture is presented below). This was followed, in the afternoon, by two special sessions, namely: “The Certified Industrial Hygienist – Mark of Professionalism!” and “The Occupational Risk Management Toolkit – Control Banding”. In addition, Professor Cavallo introduced the system of Certification of Industrial Hygienists in Italy. On the next day, 16 June 2006, there was also another session on “Exposure strategies and measurement in risk assessment.” The presentations were excellent and the audience was very interested in raising questions.

At ICOH 2006: IOHA President-Elect, Rob Ferrie (far left), IOHA President, Tai Wa Tsin (second from left) and Immediate Past President, Ton Spee (far right) with members of the Executive Board of AIDII

Congratulations to the Italian Industrial Hygiene Association (AIDII) on the success of the special sessions on the development of the occupational hygiene around the world, which were organized during the 28th ICOH (2006), in Milan.
Occupational Hygiene was born in the forties in the USA, from the need to focus on the causes of the occupational diseases from a scientific and technical point of view. In other words this is to understand how to detect, how to evaluate and how to control the chronic risks at the workplace. The discipline developed very well from that time up to the nineties thank to a strong commitment of dedicated people and professional societies supported by international organizations such as the ILO and the WHO.

Nowadays the situation of Occupational Hygiene differs considerably between countries which can arbitrarily be categorized according to the “culture and tradition” they have in this field. The development of this science has decreased in the countries where it has been very well established. This is probably due to the fact that the field of Occupational Health has been enlarged very much in the last decade so that Occupational Hygiene has to struggle more than before to defend its ecological niche (specificity) in this vast domain. In some countries the discipline is mixed with safety or environmental protection or even with the quality management and there is no curricula for Occupational Hygiene only. In many countries it simply does not exist.

What will be the future of Occupational Hygiene ? This is not possible to answer this question but there are clear opportunities to show the importance of Occupational Hygiene such as the REACH regulation in Europe which full comply with the core competencies of this profession. Other opportunities such as the elaboration of simple tools to assess and control the occupational hazards (toolkits) may also lead to a decrease in the need of well educated professionals since these tools will not require a long training to be used.

In conclusion, the future will depend on the way the actual occupational hygienists will work to become more visible and to be considered as essential partners to reach the main goal of Occupational Health which is to build up healthy workplaces, for healthy companies in a healthy economy. The Occupational Hygiene Societies at the national level and the IOHA (International Occupational Hygiene Association) at the international level, will have a key role to play in this future evolution.

REACH: Implications and Opportunities for the Practice and Profession of Occupational Hygiene Conference and Workshop

As mentioned on the previous IOHA Newsletter, the above meeting was held in Brussels, Belgium, on 14-15th December 2005, organized by the British Occupational Hygiene Society (BOHS) in collaboration with the Belgian Society for Occupational Hygiene (BSOH).

The aims of the workshop were the following:

- to identify the opportunities for improved occupational hygiene in EU workplaces through REACH
- to prepare the occupational hygiene profession for REACH
- to signal to policy makers that there is a professional group capable of delivering one of the core elements of REACH, i.e. worker protection aspects of the Chemical Safety Assessment and Report, including exposure assessment and estimation, DNELs and development of ESs to define and communicate Risk Reduction Measures
- to facilitate discussion between and engage other European Occupational Hygiene professional groups, and
- to discuss the needs for education and training for competency standards across the EU.

Please, note that the presentations and the final report of this important meeting are now available online at the BOHS website; direct link: http://www.bohs.org/eventDetails.aspx?event=43
The Japan Association for Working Environment Measurement held an Ordinary General Meeting of fiscal year 2006, on 26 May 2006, in Tokyo. More than 700 full members attended the meeting. In the Meeting, Mr. Kizoh Hirayama, Director, General Manager, Personal & Labour Relation Division of Nippon Steel Corporation, was elected as the New President of JAWE, succeeding Mr. Kunioki Kubo, Corporate Auditor of JFE, Holdings, Inc., Immediate Past President, whose dedicated work for three terms (6 years) was highly appreciated.

At the same time, the Board of Directors of JAWE, decided to have Mr. Kunioki Kubo as JAWE Chief Adviser, because of his great achievements in the field.

At the JAWE 2006 meeting; Mr. Kizoh Hirayama, New President of JAWE (left) and Mr. Kunioki Kubo, Immediate Past President (right)

In the business programme of fiscal year 2006 of JAWE, a new project was incorporated, which includes an advanced training course on “Evaluation of Asbestos in Bulk Materials” (such as construction materials), as well as an “Accuracy Control Project by Cross-check of Blind Samples” (such as samples from asbestos-containing construction materials).

The purpose of these projects is to improve the skill and competence of Licensed Industrial Hygienists, in the field of Working Environment Measurement, to analyze the asbestos content in weight in bulk samples (not to assess airborne asbestos in work places), as well as to improve the accuracy of analyses of both airborne samples and bulk samples containing asbestos. This is an important step in order to properly cope with the recent serious situation concerning asbestos in Japan nationwide.

As already mentioned on the IOHA Newsletters of July and December 2005, in order to cope with the recent change of the situation regarding the manufacture, import, transfer, supply or use of asbestos, as well as the increase of lung cancer, mesothelioma and other diseases resulting from exposure to asbestos in Japan, the Ministry of Health, Labour and Welfare enacted, in July 2005, and has been enforcing a new regulation: the “Ordinance on Prevention of Hazards due to Asbestos”. This means that the main target for the prevention of diseases due to asbestos exposure is the protection of workers in workplaces where the buildings or structures were constructed in the 1970's to 1980's, often using asbestos (for example, in fire fighting materials, slates, cement, insulating materials and other construction materials), particularly whenever these are pulled down because of deterioration, or are demolished. It is expected that workers engaged in such work will be exposed to asbestos, unless strict preventive measures are taken by employers, for example, isolation, use of adequate local exhaust ventilation, appropriate personal protective equipment and clothing, personal hygiene, among others.

Therefore, the main objective of this new regulation is to cope properly with the above-mentioned problem of asbestos exposure, through measures such as the following:

- prior studies must be carried out by concerned employers to establish whether asbestos was used or not in buildings or structures, which are planned to be pulled down;
- when it is not clear whether asbestos was used or not in such buildings or structures, analysis for the presence of asbestos shall be carried out by the employers concerned, otherwise adequate measures to prevent workers’ exposure to asbestos should be taken as if asbestos had been used.

In fact, commissions to analyze asbestos in samples, mostly from construction materials, have been rapidly increasing. According to a special study conducted by JAWE covering 284 Working Environment Measurement Agencies (full members of JAWE), it was shown that, in August 2005, the number of requests to analyze the asbestos content of airborne samples (in weight) reached 7,734 and, to analyze the asbestos content of bulk samples (in weight) reached 18,992. As a comparison, the requests had been, respectively, 791 and 871, in April 2005.

According to a special nationwide study conducted in 2005, as well as the most recently released statistical data, both by the Ministry of Health, Labour and Welfare, the number of the victims who suffered from asbestos-related diseases (such as lung cancer and mesothelioma) and were compensated by the
Workers Compensation Insurance Act in Japan, in the past, reached 1,239 (including self-employed persons who were compensated in accordance with a special provision for entry into the insurance system by the Act).

Moreover, the following two facts were brought to light recently:

- some residents in the surroundings of a factory, which manufactured asbestos containing products in the past, have been suffering from asbestos-related diseases; these victims cannot be compensated for the damage to their health, because of the lack of an appropriate legal system;
- some workers and their families cannot be compensated by the Workers Compensation Insurance Act in Japan, because of the statute of limitations of more than 5 years.

Therefore, the Government of Japan enacted and enforced a new Law, “the Law concerning the relief of health damages due to asbestos”, on 27 March 2006, and started to relieve the concerned victims, namely the above-mentioned residents and the workers (or, when they were dead, their families) who suffered from diseases due to asbestos exposure and could not be otherwise compensated.

Nowadays, the asbestos problem is one of the most serious social issues in Japan. Therefore, it is very important that Licensed Industrial Hygienists in the field of Working Environment measurement (under the Work Environment Measurement Law), employed in registered Working Environment Measurement Agencies or in organizations that have their own staff to perform working environment measurements, and other competent analytical specialists have excellent ability to accurately analyze asbestos contents in weight, in any bulk samples as required. The counting method used for asbestos analysis includes Dispersion Staining and the new types of phase-contrast and polarizing optical microscopes, developed in Japan (presented on the last issue of this Newsletter).

In the fiscal year 2005, JAVE was entrusted by the Ministry of Health, Labour and Welfare, to train 144 Licensed Industrial Hygienists in the field of Working Environment measurement and other competent analytical specialists, by giving Training Courses for Evaluation of Asbestos in Bulk Materials. There were so many applicants wishing to be trained in this field that JAVE was asked to conduct additional training courses, to which some special subjects were added (such as the Derivative Thermogravimetry method); these additional training courses were completed by 118 participants.

The cross check project regarding accuracy control of asbestos analysis in weight (its lower detection limit is 0.1% in weight.), which JAVE is planning in fiscal year 2006, includes qualitative and quantitative analysis of both unknown bulk samples containing asbestos and unknown airborne samples from work places, as well as a certification system for individual Licensed Industrial Hygienists in the field of Working Environment measurement and other competent analytical specialists who can analyze accurately asbestos content in weight at the previously mentioned level.

The advanced training course for Evaluation of Asbestos in Bulk Samples, which JAVE is planning in 2006, includes advanced practice, namely on:

- qualitative and quantitative analysis of asbestos content of bulk samples, in weight by X-ray Diffraction Method (including formic acid treatment and others);
- Identification of types of asbestos fibres and quantitative analysis of asbestos fibres, by the Phase-Contrast, Dispersion Optical Microscope, using Dispersion Staining;
- operation of the required analytical equipment.

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News from WHO

Health Care Workers
World Health Day: Working together for health - 7 April 2006

This year, the World Health Day was dedicated to Health Care Workers - the people who provide health care to those who need it – and who are the heart of health systems. Unfortunately, around the world, the health workforce is in crisis due to many factors and one of them is the lack of protection against occupational risk factors. Paradoxically, those who should ensure health are exposed to multiplicity of uncontrolled health hazards, in all categories: chemicals, biological and physical agents, ergonomic and psychosocial factors.

A message from Dr Tim Evans (Assistant Director-General for Evidence and Information for Policy, World Health Organization) on “World Health Day 2006: Working together for health” is available online at:

**GOHNET**

An excellent GOHNET Newsletter dedicated to Health Care Workers is available online, at the WHO site; direct link: http://www.who.int/occupational_health/publications/newsletter/gohnet8eng.pdf

Examples of articles:
The effects of Globalization on Health Care Work and the Health Care Worker, Emerging Infections among Health Care Workers: the Severe Acute Respiratory Syndrome (SARS) Experience, Workplace Health Promotion for Auxiliary Nurses, Use of Respiratory Protection among Health Care Workers and Emerging Infectious Diseases, Preventing Needle Stick Injuries and Occupational Exposure to Bloodborne Pathogens, Occupational Diseases in Health Care Workers in the Czech Republic, NIOSH/CDC Resources for Health Care Workers, New Research shows Workplace Violence Threatens Health Services Worldwide.

As a reminder, the GOHNET (Global Occupational Health Network) Newsletter is available online (current issue, archives, guidelines for contributions), at the WHO site, direct link: http://www.who.int/occupational_health/publications/newsletter/en/index.html

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**Global Network of the WHO Collaborating Centres in Occupational Health**

*(notice from WHO, after the meeting took place)*

The 7th Meeting of the Global Network of the WHO Collaborating Centres, held in Stresa, Italy, on Stresa, Italy, 8-9 June 2006, brought together an unprecedented number of participants - 120, representing 45 collaborating centres from 32 countries.

Some highlights of the meeting and future plans are hereby presented:

- The 6 Activity Areas (as presented on the last IOHA Newsletter) were confirmed, and many projects got firm ed up and several partnerships were formed. The link to the latest WHO Collaborating Centres Workplan is:


- The Activity Area Managers have been confirmed as follows:
  - **AA1: Global situation analysis; Kaj Elgstrand, NIWL, Sweden**
  - **AA 2: Evidence for action, and national policies and action plans; Joanne Elms, HSL, UK**
  - **AA 3: Practical approaches to identify and reduce occupational risks; Stavroula Leka, University of Nottingham, UK**
  - **AA 4: Education, training, and technical materials; Leslie Nickels, University of Illinois, US**
  - **AA 5: Development and expansion of Occupational Health Services; Timo Leino, FIOH, Finland**

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**NOTE:** The latest issue of GOHNET covers the issue of “Psychosocial Factors and Mental Health at Work”.

**Sources of Information**

There are many publications and CDs related to the prevention of needlestick injuries (both by WHO and the ILO, as well as NIOSH, HSE and other national agencies, and which can be found on their respective sites), for example:

- Joint ILO/WHO guidelines on health services and HIV/AIDS

On the 2006 International Occupational Safety and Health Day, celebrated every year on 28 April, WHO held a Session on this important topic, where related materials and activities both in WHO and at the ILO were presented. More information is available online on the WHO Website.
• AA 6: Communication and Networking; Claudina Nogueira, NIOH South Africa (claudina.nogueira@nioh.nhls.ac.za)

• The meeting report is expected by the end of July and the next version of the CC Workplan will be available this Fall.

• The advisory committee of the CC Network has been expanded and now the members are: Harri Vainio (FIOH, Finland), Marco Maroni (ICPS, Italy), Mikael Sjöberg (NIWL, Sweden), John Howard (NIOSH, USA), Sin Eng (National University of Singapore), Mary Ross (NIOH, South Africa) and Eduardo Algranti (FUNDACENTRO, Brazil).

In addition to work on the preparation of the WHO Global Plan of Action on Workers Health, the meeting adopted a Declaration on Workers Health. This Declaration aims at broadening the scope of health action at the workplace by including, alongside occupational health and safety, also the broader areas of workplace health promotion, prevention of communicable and chronic diseases at the workplace, certain work-related socio-economic determinants of health, as well as the provision of health services to workers and their families. Currently, there are internal consultations with the relevant WHO technical programmes on the draft Global Plan of Action, which will be released for external consultations at the end of June. The Stresa meeting encouraged WHO to present this plan at the 2007 World Health Assembly. The full text of the Stresa Declaration on Workers Health, which was signed by the new advisory committee, can be found at:

http://www.who.int/occupational_health/Declarwh.pdf

Further information can be obtained from the Global Network Co-Coordinators, namely: Dr. Gerry Eijkemans, WHO, Geneva (E-mail: eijkemansg@who.int) and Dr. Marilyn Fingerhut, NIOSH, USA (E-mail: maf2@cdc.gov).

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Materials and information from WHO can be found at:

http://www.who.int/occupational_health/en/

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News from the ILO

The 2006 International Labour Conference

The member States of the ILO meet at the International Labour Conference, held every year in Geneva, Switzerland, in the month of June. The 95th annual Conference of the International Labour Organization (ILO) took place from 31 May to 16 June 2006. Its provisional records are available online at:


It is rewarding to note that the 2006 ILO Conference adopted a series of standards and measures addressing health and safety of workers and flexible working arrangements. Some excerpts of the Press Release of 15 June 2006 entitled “ILO adopts new measures on occupational safety and health, the employment relationship, asbestos” are hereby presented. The full text of this Press Release is available online at:


“Delegates to the annual meeting overwhelmingly adopted a new Promotional Framework Convention on Occupational Safety and Health and accompanying Recommendation.”

…..

The ILO estimates that some 6,000 workers die each day as a result of work-related accidents or illness. The new measures will promote the development of a “preventive safety and health culture” through the elevation of occupational safety and health high on national agendas by launching national occupational safety and health programmes, as well as the promotion of safer and healthier working environments through preventive measures.

The measures are based on the ILO’s Global Strategy on Occupational Safety and Health adopted by the 2003 International Labour Conference, which emphasized the importance of building and maintenance of a national preventative safety and health culture, and a systems approach to safety and health.
... The Conference also adopted a Resolution concerning exposure to asbestos which causes some 100,000 deaths worldwide per year. The Resolution declares that the elimination of the future use of asbestos and the identification and proper management of asbestos currently in place are the most effective means to protect workers from asbestos exposure and to prevent future asbestos-related diseases and deaths. It also resolves that the ILO's Asbestos Convention 1986 (No. 162) should not be used to provide a justification for, or endorsement of, the continued use of asbestos.”

NOTE: Details on the new very important ILO instruments, namely the Promotional Framework Convention on Occupational Safety and Health and accompanying Recommendation, are available online (in English and French); direct link:

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New ILO Resolution concerning asbestos (June 2006)

The General Conference of the International Labour Organization,

Considering that all forms of asbestos, including chrysotile, are classified as known human carcinogens by the International Agency for Research on Cancer, a classification restated by the International Programme on Chemical Safety (a joint Programme of the International Labour Organization, the World Health Organization and the United Nations Environment Programme),

Alarmed that an estimated 100,000 workers die every year from diseases caused by exposure to asbestos,

Deeply concerned that workers continue to face serious risks from asbestos exposure, particularly in asbestos removal, demolition, building maintenance, ship-breaking and waste handling activities,

Noting that it has taken three decades of efforts and the emergence of suitable alternatives for a comprehensive ban on the manufacturing and use of asbestos and asbestos-containing products to be adopted in a number of countries,

Further noting that the objective of the Promotional Framework for Occupational Safety and Health Convention 2006 is to prevent occupational injuries, diseases and deaths.

1. Resolves that:

(a) the elimination of the future use of asbestos and the identification and proper management of asbestos currently in place are the most effective means to protect workers from asbestos exposure and to prevent future asbestos-related diseases and deaths; and

(b) the Asbestos Convention, 1986 (No. 162), should not be used to provide a justification for, or endorsement of, the continued use of asbestos.

2. Requests the Governing Body to direct the International Labour Office to:

(a) continue to encourage member States to ratify and give effect to the provisions of the Asbestos Convention, 1986 (No. 162), and the Occupational Cancer Convention, 1974 (No. 139);

(b) promote the elimination of future use of all forms of asbestos and asbestos containing materials in all member States;

(c) promote the identification and proper management of all forms of asbestos currently in place;

(d) encourage and assist member States to include measures in their national programmes on occupational safety and health to protect workers from exposure to asbestos; and

(e) transmit this resolution to all member States.

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Interview with Dr. Jukka Takala on the ILO Asbestos Resolution (by “Hazards Magazine”)

The International Labour Office (ILO) is to pursue a global ban on asbestos, the world’s biggest ever industrial killer. The landmark decision came with the adoption of a resolution on 14 June 2006 at the ILO conference in Geneva and followed a high level union campaign. Rory O’Neill (for the “Hazards Magazine”, England) asked Jukka Takala, director of
ILO’s SafeWork programme, what ILO will now do to help make the world asbestos-free. Excerpts of this interview are hereby presented.

HAZARDS: What is the ILO response to the asbestos resolution?

Jukka Takala: ILO will intensify its support to the existing campaigns related to asbestos and, in particular, on the elimination of the future use of asbestos, and asbestos-containing materials. As the French Minister of Labour, M. Larcher said, the ILO should have a campaign of its own to eliminate future use of asbestos, and properly manage asbestos in place today.

HAZARDS: How serious a problem is asbestos trade and use?

Jukka Takala: Every year some 2 million tons of asbestos is produced and taken to use worldwide, and some of it is even recycled, such as that in shipbreaking. While recycling of useful materials is important, recycling of hazards must be stopped immediately. All these asbestos problems continue to cause a massive global epidemic that is increasingly hitting the developing world, in addition to the industrialised countries. These developing economies do not have the means to protect themselves, have outdated policies and legislation, poor inspection systems, and lack of knowledge to tackle the problem. It has been estimated that every 170 tons of asbestos is responsible for one mesothelioma - a fatal cancer of the linings of the lungs - and for two lung cancers.

Full interview is available online at:
http://www.hazards.org/asbestos/ilo.htm

NOTE: See also the Press Release (14 June 2006): “New forms of violence at work on the rise worldwide”, available online at:

The ILO Report to the XVIIth World Congress on Safety and Health at Work
(This notice was prepared for the December 2005 issue of this Newsletter and, by an oversight of the Editor, it was not posted; however, due to its importance, it is posted now, with apologies).

The XVIIth World Congress on Safety and Health at Work was held in Orlando Florida, 18-22 September 2005, jointly organized by the International Labour Office (ILO), the International Social Security Association (ISSA) and the National Safety Council (NSC, the host of the event), with the theme “Prevention in a Globalized World – Success through Partnership”.

The Congress emphasized the critical importance of safety and health at work in a globalized world, through the following points:

1. Globalization must go hand in hand with preventative measures to ensure the continuing health and well-being of individuals at work.
2. The right to the highest achievable standard of safety and health at work is fundamental. Work can only be decent if it is safe and healthy.
3. Safety and health at work should be an integral part of doing business in both large and small enterprises and in the informal economy. It should be aligned with other organizational objectives, as attention to safety and health at work has extensive benefits in social and economic terms.
4. Furthermore, safety and health at work needs to be placed high on national agendas, promoting national safety and health programmes and generating a preventive safety and health culture in both the public and private sectors.
5. Prevention systems, laws, regulations and means of enforcement should be put in place at all levels, with a management cycle calling for continuous monitoring and improvement.
6. Once safety and health policies are developed, strategies towards success must be put in place. Leadership is essential to implementing successful prevention strategies. These policies and strategies need to be supported by effective information, training and education.
7. Everyone involved in and responsible for safety and health at work needs to collaborate to put the prevention of accidents and diseases in the forefront of societal concerns.

The ILO report “Decent Work - Safe Work, ILO Introductory Report to the XVIIth World Congress on Safety and Health at Work is available online in full, at:

Please, note the ILO Press Release “Global workplace deaths vastly under-reported” (available online at: http://www.ilo.org/public/english/bureau/inf/pr/2005/36.htm); some excerpts are hereby presented:
“While the number of work-related illnesses and deaths has lessened somewhat in the industrialized countries, the ILO report said the number of accidents - in particular fatal accidents - appear to be increasing, particularly in some Asian countries due to poor reporting, rapid development and strong competitive pressures of globalization.

“Occupational safety and health is vital to the dignity of work”, said ILO Director-General Juan Somavia. “Still, every day, on average, some 5,000 or more women and men around the world lose their lives because of work-related accidents and illness. Decent Work must be safe work, and we are a long way from achieving that goal.”

The International Labour Office Introductory Report to this Congress: “Decent Work - Safe Work”, presented by Dr. J. Takala (Director ILO SafeWork) also warns that work-related malaria and other communicable diseases as well as cancers caused by hazardous substances are taking a huge toll, mostly in the developing world. The majority of the global workforce lacks legal or preventive safety or health measures, accident or illness compensation and has no access to occupational health services. “The sad truth is that in some parts of the world, many workers will probably die for lack of an adequate safety culture… This is a heavy price to pay for uncontrolled development. We must act swiftly to reverse these trends”, said Jukka Takala.

The report noted that men, in particular, are at risk of dying at working age (below 65) while women suffer more from work-related communicable diseases, psycho-social factors and long-term musculo-skeletal disorders. In several industrial countries, more than half of the retirements are based on early retirements and disability pensions rather than workers reaching the normal retirement age. While not all factors behind these trends are directly caused by work, the workplace is in a key position for prevention and maintaining work ability through its management system.

While work-related diseases are the main problem in industrialized countries, accident hazards are more prevalent in the developing economies where workers are frequently dying in mishaps that occur in such sectors as mining, construction and agriculture. In the industrialized countries, the share of the workforce in such hazardous sectors has declined while that of safer service industries (office work, banking, commerce) has grown…. Mr. Takala added that most workers in the world are not covered by legal preventive measures and will never receive compensation in case of accidents and diseases. He also said most have never seen an occupational doctor or a labour inspector…. The ILO new Global Strategy considers that development of international collaboration is a key factor in intensifying preventive efforts and mobilizing resources to promote occupational safety and health at work.

Materials and information from the ILO can be found at:


News from the European Union

New Director at the European Agency for Safety and Health at Work

Jukka Takala - presently Director of the International Labour Organization’s Programme on Safety and Health at Work and the Environment (SafeWork) - was selected as the new Director of EU-OSHA, Bilbao, Spain, succeeding Hans-Horst Konkolewsky, and will take office this Fall.

Jukka Takala stated: “I am delighted that the governing board has nominated me as the next director of the Agency. I consider that the Agency has an important role to play in promoting higher levels of workplace safety and health across the European Union. And I look forward to working with colleagues in Bilbao as well as in the European institutions, social partner organizations and member states to support the future Community strategy for reaching this goal.”

Commenting on the appointment, Bertil Remaeus, chair of the Agency’s governing board said: “Jukka Takala was an outstanding candidate in a strong field of applicants and I am delighted that the European Agency for Safety and Health at Work will now be able to benefit from his proven leadership abilities and his firm commitment to guaranteeing safe and healthy work for all. Under the leadership of Hans-Horst Konkolewsky, the Agency has established itself as one of the world’s principal providers of reliable and accessible occupational and safety health information (OSH). But, in the field of workplace safety and health much remains to be done and I am
confident that, under Dr Takala’s leadership, the Agency will continue to play its full part in promoting an OSH preventive culture across Europe.”

The dedicated work of Hans-Horst Konkolewsky has made EU-OSHA a very valuable agency, with an excellent information system. In this respect, the effective work of his colleague, Finn Sheye (who is also leaving the Agency) is very much appreciated.

Congratulations to all of them and that they will be very happy in their new positions!

NOTE: Further details are available online as EU-OSHA press release “The governing board of the European Agency for Safety and Health at Work has appointed Jukka Takala as the Agency’s next director” at:


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German Federal Institute for Occupational Safety and Health proposes a Control Scheme for Hazardous Substances

by Kurt Leichnitz, IOHA Board Member E-mail: Kurt.Leichnitz@t-online.de

Easy-to-use workplace control scheme for hazardous substances is the title of a practical guide for the application of the German Hazardous Substances Ordinance by small and medium-sized enterprises. This Scheme covers activities involving labelled hazardous substances without workplace limit values. It applies in particular to activities with substances marked Xi (irritant), Xn (harmful), C (corrosive), T (toxic), T+ (very toxic).

The Scheme is being structured similarly to the “control banding” method, already being used in several countries. It is based on hazard symbols, the hazardous substance classification, the information on the release potential (boiling point, tendency to form dust), and the quantities used, as well as on the type and extent of possible skin contact.

The Scheme indicates the protection level necessary under the Hazardous Substance Ordinance and the requirements associated therewith. It also offers suggestions as to how the work process might be organised and describes model solutions for common activities. In addition, this Scheme also identifies activities and situations which require specialist advice in the field of occupational health and safety in order to ensure adequate protection for people working with hazardous substances.

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Articles: The Role of Work Environment Control for the Prevention of Occupational Diseases, from the viewpoint of the experiences of Japan (September 2005)

by Masayoshi Karasawa, Executive Director, Japan Association for Working Environment Measurement (JAWE) IOHA Board Member

NOTE: This article was shortened for the IOHA Newsletter; however, the full article, including a number of relevant figures and tables, as well as further details, can be obtained directly from the author (E-mail: director@jawe.or.jp).

1. Occurrence of occupational diseases in Japan in recent decades

The occurrence of occupational diseases in Japan fell from 18,000 per year in the late 1970s to an average of 13-14,000 in the 1980s. This number dropped further to 9,630 in 1993. Since then, the number has hovered between 8,000 and 10,000 (see Figure 1, below; Source: Survey of Occupational diseases (Ministry of Health, Labour and Welfare).
As shown in Figure 2, in 2004, in Japan, the most frequent causes of occupational health impairment were diseases due to accidental injuries (5,370 cases), followed by pneumoconiosis and related complications (814 cases), diseases due to physical factors (513 cases), diseases due to ergonomic factors, such as low-back pains, tenosynovitis and other MSDs (368 cases), and diseases due to chemical substances (284 cases).

The annual figures, from 1999 to 2004 for the five most common causes, namely injuries, pneumoconiosis and related complications, unhealthy physical factors in the environment; diseases due to working mode and diseases due to chemical substances may be obtained from the author.

There were large numbers of occupational diseases in Japan in the 1970s and 80s. Since then, these
numbers have generally been falling due to measures that the Japanese government and employers have taken to improve risk management in the work environment.

The occurrence of newly detected pneumoconiosis among examined workers (defined as persons who have been tested for pneumoconiosis and been placed in Pneumoconiosis Management Classification 2 or higher) has been decreasing gradually. The number of persons suffering from pneumoconiosis or related complications (defined as persons who have been placed in Pneumoconiosis Management Classification 4, and persons who have been diagnosed as suffering from pneumoconiosis-related complications) has changed very little (specific data available from the author). It is important to note that the implementation of preventive measures has greatly contributed to the decrease of pneumoconiosis and related complications.

On the other hand, the number of persons suffering from occupational diseases due to chemical substances totalling from 200 to 300 and more persons per year remains almost unchanged. Results from the “Survey of occupational diseases” and “Survey on the results of Pneumoconiosis Control” by the Ministry of Health, Labour and Welfare may be obtained from the author.

2. System for work environment control

With regard to the prevention of occupational diseases induced by toxic chemical substances, and to prevention of pneumoconiosis and related complications, the system for work environment control is described in Table 1.

Table 1

| (1) | Identification of the toxicity of chemical substances used as raw materials, assessment of the degree of exposure of workers to these substances, as well as of the expected impact upon their health. |
| (2) | Halting the use of toxic raw materials. Switch to less toxic raw materials. |
| (3) | Improvement of production processes and work methods in order to prevent the release of toxic substances. |
| (4) | Adoption of airtight, automated, and/or remote control production equipment. Isolation of toxic processes. |
| (5) | Use of local exhaust ventilation systems (including push-pull type exhaust ventilation equipment) in order to minimize worker exposure to toxic substances. |
| (6) | Limitation of the use of general ventilation systems to certain specific conditions in order to lower the concentration of toxic substances in such systems. |
| (7) | Measurement of work environments in order to check the effectiveness of working environment measurement. |
| (8) | Evaluation of the results of working environment measurements |
| (9) | Installation of equipment required to solve any problems that may be identified by a working environment measurement. (Installation of local exhaust ventilation systems [including push-pull type exhaust ventilation equipment], and general ventilation systems, when the work environment allows the use of such systems.) |
| (10) | Control of work methods. (Use of personal protective equipment when there is a risk of exposure to high concentrations of toxic substances; limitation of time spent working under such conditions; etc.) |
| (11) | Health management (special medical examinations on a regularly scheduled basis for persons engaged in work involving exposure to toxic substances) |
| (12) | Occupational Health education for workers (training in various subjects, including: proper work methods for persons working in a toxic environment; health effects of toxic substances; maintenance of local exhaust ventilation systems [including push-pull type exhaust ventilation equipment] and general ventilation systems; etc.) |
3. Carrying out appropriate the working environmental measurement

The concept of work environment control was initially incorporated into occupational safety and health legislation in Japan when the Industrial Safety and Health Law was enacted in 1972. Article 65 of this law requires employers to carry out working environment measurement in order to facilitate work environment control; however, an early precursor to this legislation had already appeared, in the form of Labour Standards Bureau Issuance No. 1178, 1948. Prior to enforcement of the Industrial Safety and Health Law, Article 42 of the Labour Standards Law already required employers to take steps to prevent work environments from having an adverse effect on their employees’ health.

The Ordinance on the Prevention of Organic Solvent Poisoning, which was enacted in 1960, was intended as a means to ensure the achievement of this goal. It was passed in response to an outbreak of health problems suffered by workers who were exposed to benzene in connection with the home-based production of “Hep-sandals.” (This name was driven from a famous actress, Audrey Hepburn, who wore sandals in the American movie “Roman Holiday” which became a huge hit product in Japan.) The Ordinance required application of local exhaust ventilation systems where certain organic solvents are handled, and it specified the air velocity required to eliminate the organic solvent from the work environment. In order to ensure the efficiency of the local exhaust ventilation systems, employers are required to install detector tubes. However, the Ordinance did not specify specific numerical targets; hence it did not constitute an adequate basis for “work environment control” as we understand the term today.

With the adoption of the Ordinance on Prevention of Hazards due to Specified Chemical Substances, in 1971, the regulatory system was changed. The regulation method based on the number of tasks, which had formerly been used, was abandoned in favour of a system based on the concept of work environment control, by which toxic chemical substances were subject to “concentration limits.” Article 65 of the Industrial Safety and Health Law of 1972 required employers to carry out working environment measurements, and to adopt work environment control solutions based on the results of these measurements. Further legislation, requiring employers to address problems in a comprehensive manner, did not come along until 1975, when the Working Environment Measurement Law was enforced, and Article 65 of the Industrial Safety and Health Law was amended. Regarding indoor workplaces where workers are exposed to toxic substances (as well as other workplaces where workers are exposed to significant health risks), these new items of legislation required employers to carry out regularly scheduled measurements (in principle, at least once every six months), in accordance with the provisions of the Working environment measurement Standards of the Minister of Labour (at present, Minister of Health, Labour and Welfare). Since 30 April 1977, the law has required that working environment measurements be carried out by either industrial hygienists in the field of working environment measurement, or by a registered working environment measurement agency hired from outside the company.

The requirement to have working environment measurements carried out either by an industrial hygienists (in the field of working environment measurement) or a registered working environment measurement agency has ensured measurements performed in a scientific manner by qualified and competent persons using proper sampling strategies, procedures and analytical techniques. (Article 2, item 4 of the Industrial Safety and Health Law requires that employers “carry out design, sampling, and assays (including analysis) to determine the safety of the air and other elements of the work environment.”) This new legislation brought considerable progress in the field of working environment measurement.

One key difference between the way working environment measurements are carried out in Japan and in some Western countries is that, in Japan, such measurements are used mainly to assess the degree of work environment control and, not to solely to evaluate the exposure level of individual workers. Therefore, if and when the results of the assessment indicate the need for hazard control, the employers concerned must take the necessary preventive measures. In Japan, it is also important to measure the degree of exposure of the individual worker and the legislation specifies clearly and in detail how this should be carried out (Working Environment Measurement Standards, Notification No. 46 of April 22, 1976 by the Ministry of Labour, at present, Ministry of Health, Labour and Welfare).

4. Working environment measurement in Japan

The main purpose of the working environment measurement is to obtain an accurate understanding of the working conditions of employees who work in potentially toxic environments, so as to determine which preventive measures, control systems and equipment need to be installed in order to improve the work environment. The working environment measurement must be objective and accurate. For this reason, the Minister of Health, Labour and Welfare’s working environment measurement Standards include stipulations regarding the following aspects of working environment measurements:

(1) The method of defining what constitutes a unitary workplace
(2) The method of determining what must be measured

(3) The method of determining the timing and duration of measurements

(4) The type and performance of the sampling and analytical equipment to be used for carrying out measurements.

5. Evaluating the results of working environment measurements

With regard to the evaluation of the results of working environment measurements, the Ministry of Labour (at present, Ministry of Health, Labour and Welfare), has issued administrative guidance for the past 15 years urging employers to carry out their evaluations in accordance with a Labour Standards Bureau circular issued in February 1984. In a further effort to ensure that employers would evaluate the results of working environment measurements in an effective and appropriate manner, and to ensure that employers would pursue whatever measures that such evaluations indicated to be necessary, the Industrial Safety and Health Law was amended in February 1988 (a new clause was added to Article 65-2). The amended law required employers to take the results of working environment measurements, as the basis in carrying out working environment evaluations, in accordance with the provisions of the Work Environment Evaluation Standards (Ministry of Labour Notification No. 79 of September 1, 1988). Large numbers of workplaces throughout Japan now carry out systematic work environment management in accordance with the requirements of the Work Environment Evaluation Standards (available online at the website:


6. How the results of working environment measurements are evaluated in Japan, and post-evaluation follow-up measures

After the results of working environment measurements are evaluated, the work environment is classified into one of three categories (Control Classification 1, Control Classification 2 and Control Classification 3), as required by the Work Environment Evaluation Standards (Minister of Health, Labour and Welfare). The Standards are used as an indicator of the quality (or lack of quality) of the work environment management at a given workplace, and are used to evaluate workplaces where employees are exposed to dust, specified chemical substances, lead, and organic solvents.

Evaluations are carried out in accordance with the provisions of the Working environment measurement Evaluation Standards, as summarized in the flow chart in Figure 3, where the type of working conditions corresponding to the three control classifications, as well as the required preventive actions, are indicated. (Specific details of this Standard may be obtained from author).

7. Implementation of the unified accuracy control project by the Ministry of Health, Labour, and Welfare, Japan

The Ministry of Health, Labour, and Welfare, Japan, entrusts the Japan Association for Working Environment Measurement (JAWE) with the unified accuracy project (including cross check of the result of the working environment measurements) in order to improve the design, sampling, assay (including analysis) and evaluation methods in working environment measurement agencies, as well as to promote appropriate evaluation of the results from working environment measurements and the implementation of the following prevention and control measures by employers.
Define what constitutes a unitary workplace.

Determine the date for measurement.

Determine measurement conditions.

Determine the points to be measured.

Determine measurement procedures.

Measurement method A

Calculate the geometrical mean value and geometrical standard deviation.

Calculate assessment value 1 and assessment value 2.

Measurement method B

Determine control classifications on the basis of the Working environment measurement Evaluation

Control Classification 1
The concentration of airborne toxicants in almost all (95% or more) of the work environments in the unitary workplace does not exceed control concentration.

Implement the current work environment control program on an ongoing basis.

Control Classification 2
The average concentration of airborne toxicants for the unitary workplace as a whole does not exceed control concentration.

Inspect facilities, equipment, production processes, and work methods. Based on the results of this inspection, taking necessary steps to improve the work environment.

Control Classification 3
The average concentration of airborne toxicants for the unitary workplace as a whole exceeds control concentration.

- Provide employees with dust respirator.
- Devise necessary measures to safeguard employee health.
8. Work environment control at small and medium-sized workplaces

Small and medium-sized workplaces are also required by law to carry out the working environment measurements as described in the former section, as well as the preventive actions required to insure proper work environment control. However, Japan’s small and medium-sized workplaces do not always have the personnel, technical expertise, or financial resources required for prompt compliance with this requirement. Nevertheless, small and medium-sized workplaces are showing increasing understanding of how important it is to take appropriate steps to protect their employees’ health. This trend has come about thanks to:

(1) measures taken by the Ministry of Health, Labour and Welfare to support the efforts of small and medium-sized workplaces (and the business organizations to which they belong) in this regard;

(2) monitoring and guidance provided by various government agencies in charge of labour standards administration; and

(3) guidance provided by work environment control experts.

9. The progress achieved in recent years in the area of work environment control

JAWE has data on distributions of workplaces, dust, asbestos, organic solvents, lead, metals in specified chemical substances including specified metals other than Lead and average (Source of this data is a study conducted by the Ministry of Health, Labour and Welfare). For example, in calendar year 2003, the proportion of workplaces in Control Classification 2 was 6.3 % and the proportion of workplaces in Control Classification 3 was 4.0 %. Details on this study and the relevant tables can be obtained from the author of this article.

10. Control of work methods

In addition to the installation or upgrade of various equipment (use of air-tight machinery, installation of local exhaust ventilation systems [including push-pull type exhaust ventilation equipment], etc.) on the basis of an evaluation of the results of working environment measurements, a number of other measures are also required to be immediately taken, if they are deemed necessary. Such measures include, for example:

(1) having their employees wear personal protective equipment;

(2) implementing shorter working hours;

(3) changing work positions.

11. Health care

The Industrial Safety and Health Law stipulates that employees whose work involves exposure to toxic substances must, be provided with a special medical examination once every six months basically. The results of working environment measurements are very helpful for industrial physicians when they carry out these special medical examinations.

Different indices are used to facilitate the effort to detect adverse health effects of toxic substances at the earliest possible moment. For this reason, employers are required to implement biological monitoring within certain special medical examination programmes. Blood and/or urine tests can be used to test for the presence of various metabolites in blood and/or urine, during special medical examinations concerning work with organic solvents, such as xylene, N, N-dimethyl formamide, styrene, tetrachloroethylene, 1, 1, 1-trichloroethane, toluene, normal hexane, as well as metals such as lead. The results of these tests provide very valuable information that helps to determine the effectiveness of work environment control.

12. Occupational health education

In accordance with the requirements of the Industrial Safety and Health Law, employees who are potentially exposed to toxic substances must receive training regarding:

(1) adequate work practices;

(2) the health impact of the toxic substances that they produce or handle;

(3) the proper operation of local exhaust ventilation systems, push-pull ventilation equipment and other control systems;

(4) the proper use of personal protective equipment.

This training is indispensable if work environment control is to be carried out properly.

13. Occupational Safety and Health Management System

The release by the ISO of the ISO 9000 series quality control standards and the ISO 14000 series environmental management standards has triggered an international trend toward standardization of occupational safety and health management systems. BS8800 had been released, and the ILO finalized and issued “Guidelines on occupational
Japan’s Ministry of Health, Labour and Welfare issued its Occupational Safety and Health Management System recommendations on 30 April 1999. The Ministry took this action in response to the growing recognition of two alarming problems in the field of occupational safety and health, namely:

1. Occupational diseases in Japan are no longer being reduced as quickly as they once had been;

2. Long-time veterans in the field of occupational safety and health began to retire, while not enough has been done to ensure an efficient transfer of their know-how to a new generation.

The Ministry has determined that there is a need to improve the level of safety and health in the workplace by:

1. Ensuring the safety of workers;

2. Improving the health of workers; and

3. Promoting the creation of comfortable work environments.

To this end, the Ministry has prescribed a series of PDCA (Plan, Do, Check, and Act) activities, and it provides administrative guidance to encourage workplaces to adopt systems that will enable them to carry out ongoing and continuous safety and health management. These OSHMS recommendations highlight the identification of all types of hazards as an effective way to carry out working environment measurements.

14. Outstanding issues related to work environment control

Four main issues related to work environment control must be addressed in order to achieve further improvement in the prevention of occupational diseases. These issues are as follows.

1. The progress in the fight against pneumoconiosis in Japan has been limited and increased efforts are required in this area.

The Ministry of Health, Labour and Welfare is currently carrying out a Campaign to Promote the Implementation of Comprehensive Measures for the Prevention of Occupational Respiratory Diseases. This campaign is part of the Ministry’s five-year plan, which runs from 2003 to 2007. JAWE is providing its complete cooperation to this campaign.

2. There is a need for a concerted effort to prevent health problems stemming from exposure to chemical substances. In Japan, over 300 cases of this type of health problem occur every year. When the Industrial Safety and Health Law was amended in May 1999, changes were made to strengthen measures to prevent workers from suffering adverse health effects stemming from exposure to toxic substances. Toward this end, the amended law now stipulates that: (1) employers must provide a material safety data sheet (MSDS) when they sell or deliver chemical substances; and (2) since April 2000, employers have to start implementing guidelines issued by the Minister of Health, Labour and Welfare concerning the proper control of toxic chemical substances that have never been covered by existing legislation.

3. One of the areas addressed by the Ministry of Health, Labour and Welfare’s OSHMS recommendations is the issue of work environment control measures. The Ministry’s recommendations call upon the top management of workplaces to place top priority on work environment control measures as an indispensable part of management strategies, and to implement these measures in an organized and sustainable manner. Employers and workplaces are urged to ensure that this sort of management strategy takes firm root.

4. International exchange of technology, ideas and experiences in the field of work environment control is very important.

It was difficult for Japan to establish a work environment control system to ensure the prevention of occupational diseases in the past, and many more difficulties must yet be overcome in the future as we work to encourage the adoption of work environment control systems in small and medium-sized workplaces.

5. In view of the need to cope properly with the recent situation in Japan, regarding the diversification of working style and other socio-economic changes, the Ministry of Health, Labour and Welfare amended the Industrial Safety and Health Law, in October 2005, in order to promote risk assessment and risk control activities (by employers) in work places, as well as to harmonize the national system of classification and labelling of chemical substances, following the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) adopted by the United Nations. Employers are also requested to provide guidance to workers who are working for a long time through interviews with an Industrial Physician or other competent medical doctor. This amendment will be enforced next April, and efforts must be made by all concerned in order to respond it properly.