

## Indian Plumbing Association President elected Chairman of World Plumbing Council

Mr. Sudhakaran Nair, President of Indian Plumbing Association (IPA), was elected as the chairman of World Plumbing Council (WPC) in its Triennial Meeting in New Delhi. Nair becomes not only the first Indian but the first Asian to receive this coveted honour. This announcement was made at the two-day 10th World Plumbing Conference in New Delhi. Taking over as the Chairman, Sudhakaran Nair stated, “As the apex body for the plumbing industry, World Plumbing Council will continue its endeavours in improving the skills of plumbers across the world. Polishing their skills is the key to face growing challenges of sanitation and water conservation.

“Another critical area is to help governments, especially in developing and under-developed countries, to prepare and implement regulatory standards. In collaboration with international agencies, we want to get more involved in health care programmes across the world.”

An active member of the Indian plumbing industry for over four decades, Nair started his career in 1970 with a plumbing company in Mumbai as Project Engineer. After a successful spell of 13 years in the Middle-East, he returned to India to set up ESSENCO, a Bengaluru-based building services company. During his eventful career in India and the Middle-East, he has nearly 550 completed projects to his credit.

Nair was one of the few who foresaw the need for a national platform for Indian plumbing professionals. This led to the setting up of IPA in 1993 with Nair as one of its founder-members. He was elected as IPA’s National President in 2006 and has since been re-elected twice and remains at the helm of the Association.

An engineer by profession, Nair was elected to the Executive Board of WPC in 2005, a first for an Indian, and served the Council for six years as Executive Board Member. He was re-elected to the WPC Board in 2011 as Deputy Chairman. WPC is now universally recognised as the apex body of plumbing professionals at the international level. A Fellow Member of the Chartered Institute of Plumbing and Heating Engineering UK and a Full Member of the American Society of Plumbing Engineers, Nair was conferred with the prestigious Lifetime Achievement Award by IPA in 2006. Recently, the ACCE Gourav Award was conferred on him by the Association of Consulting Civil Engineers (ACCE) for his trailblazing efforts to upgrade plumbing standards in the country.

Joining Nair on the WPC Executive Board are deputy chairman Shayne La Combte of Australia and honorary secretary/treasurer Ken Gardner also of Australia. Directors are Hua Mingjiu of China, Jim Kendzel & Mike Massey both of the United States, Elmar Esser of Germany, Steve Brown of South Africa and Kevin Wellman of England. Nair assumed office following the recent 10th World Plumbing Conference. Members of the Board are pictured on page 2.

Established in 1990 and now headquartered in Zurich, the WPC maintains NGO status with the World Health Organisation and carries out a mission to unite the world plumbing industry and promote its role in improving public health and safeguarding the environment.



*We would like to wish readers  
of WPC REVIEW  
a joyous Festive Season and a  
happy, peaceful 2013*

# 10th World Plumbing Conference – a huge success

Congratulations to the Indian Plumbing Association for hosting one of the most dynamic, educational and entertaining World Plumbing Conferences. India boasts a rich history of culture and traditions, which were all on display for the conference delegates. However there are core issues, like health and sanitation that have remained a concern and a challenge for the country with a rapidly growing population. With this in mind, the 10<sup>th</sup> World Plumbing Conference with the central theme of “Environment, Health and Hygiene” focused on many of these challenges, not only to India but the rest of the world. Plumbing has a direct relevance on the health and hygiene of any nation and imposes a huge responsibility on plumbing professionals to practice efficient & effective plumbing.



This global event, held in India for the first time, saw more than 600 delegates from different parts of the world – including England, Scotland, Poland, Australia, China, Germany, Canada, New Zealand, Switzerland, the UAE, US, Singapore and South Africa, besides different parts of India.



The 2013 World Plumbing Conference 2013 was inaugurated by Guest of Honour Ms. Mili Majumdar. Also seen (L to R) are Chandra Shekhar Gupta, Sudhakaran Nair and Russ Chaney

The Inaugural ceremony saw a packed auditorium. Addressing the convention, the Chief Guest, **Mr. T.K.A. Nair**, Advisor to the Prime Minister of India said, “There should be a consultative process to evolve mechanisms, which are missing today. It is hard for such initiatives to come from the Government and therefore, the plumbing industry should make systematic efforts to ensure implementation of Codes and Standards.” **Mr. G.P.Russ Chaney**, Chairman, World Plumbing Council (WPC) said, “Safe sanitation to 1.2 billion people is in the hands of the

plumbers of the country. India has to raise the bar on the safety standards of plumbing. The country has a great future. A sound foundation has been laid, but there is much more to be done.” **Mr. Sudhakaran Nair**, President, Indian Plumbing Association, said that the industry needs the support of the government, as plumbing is directly related to the health and safety of the people. “The Plumber is a Nation’s health worker. This conference will attempt to let the world know the role of the plumber in creating a healthy society,” he said. The Guest of Honour, **Ms. Mili Majumdar**, Director, Sustainable Habitat Division, TERI, pointed out that India was already water-stressed and needed to introduce regulatory codes to preserve water resources. “Water audit should be made mandatory for



Chief Guest, Mr. T.K.A. Nair, Advisor to the Indian Prime Minister

the construction industry. There should be effective ways for rain water harvesting,” she said.

This two-day conference had three technical sessions and speakers from several parts of the world gave presentations on a dynamic range of topics consistent with the conference theme and with particular relevance to the topics to plumbing professionals.

**Ar. Karan Grover**, eminent architect and noted conservationist, stressed the need for sustainability along with luxury in design. **Mr. Henry Hung**, former Deputy Chairman of WPC, made a presentation on the health aspects of plumbing, and prevention of disease transmission through plumbing systems. Talking about efficient plumbing systems, **Dr. Sudarshan Iyengar**, Vice-Chancellor of Gujarat Vidyapith, stressed the need for education and



training for better sanitation. **Mr. Steve Brown**, a plumbing professional from South Africa, discussed the similar challenges faced by developing countries and measures to overcome them. **Mr. Ron George**, a plumbing consultant from USA, discussed the ways to prevent the spread of deadly pathogens like Legionella and Naegleria Fowleri in building water systems. **Prof. Lynne Jack** from Heriot-Watt University, Edinburgh, Scotland, discussed maximising the contribution of academic research to environment, health and hygiene and the role of a numerical simulation modelling in understanding plumbing issues. **Mr. Aabid Surti**, founder of "Drop Dead Foundation," emphasized how each drop of water is precious, and the responsibility of every citizen to conserve it. **Mr. David Viola**, from IAPMO, USA, talked about the role of plumbing professionals in addressing the global water challenges. **Prof. Mala Rao**, from the University of East London, England, urged the plumbing fraternity to join the effort to manage water resources, improve sanitation and demonstrate leadership in addressing climate change. With his signature style, **Dr. Pawan Agarwal**, President of the Mumbai Dabbawala Education Centre, gave a delightful and energetic presentation on supply chain management. **Dr Madhav Chitale**, Water Management Expert, talked about the management of piped networks.



*WPC Executive Board, From left: Kevin Wellman, England; Jim Kendzel, USA; Ken Gardner, Australia; Elmar Esser, Germany; Sudhakaran Nair, India; Shayne La Combre, Australia; Steve Brown, South Africa; Mingjiu Hua, China; Mike Massy, USA*



*Conference delegates enjoyed evening entertainment with a distinct Indian flavour*

All these presentations put together made an ideal mix of issues which call for urgent attention. The deliberations provided 'food for thought' as a 'takeaway' from WPC 2013!

Apart from the 'business sessions', the conference also saw pleasurable and enjoyable evening functions, mixing business with pleasure. Delegates experienced a distinct Indian flavour with the vibrant rhythms of Indian classical music, a ballet of seven of India's major classical dances, rustic folk dances, a heart-stopping martial arts dance from Manipur and a splendid performance by an array of maestros on a variety of percussive instruments. All present were enthralled by the cultural diversity of India, and the conference organisers truly created a business-combined-with-pleasure event!

The concurrent trade expo, with displays of a variety of plumbing products was another important aspect of the event. Exhibitors from all over the world had an opportunity to showcase their latest offer-

ings and to be a part of this mega convention of plumbing professionals.

## Environmental Aspects of Plumbing



*The launch of Environmental Aspects of Plumbing. L to R: Mr. Manish Jain & Mr. Manoj Dhar from Lubrizol who sponsored the publication; Mr. Chandra Shekhar Gupta, Mr. Sudhakaran Nair, Mr. T K A Nair, Ms. Mili Majumdar and Mr. Russ Chaney*

Many plumbing industry experts contributed to the first edition of "Environmental Aspects of Plumbing," the World Plumbing Council expresses its appreciation for their dynamic contribution to this document.

Water is essential to life. We, as a human race, are consuming this planet's water at alarming rates. The fresh water we use today has been around for millions of years. It is a finite supply; there is no way to make any more. Nature has a way of recycling that water for our reuse, but that is a very time consuming action. The plumbing industry must learn from these natural processes and assist nature in using this most essential natural resource wisely.

The plumbing community which includes engineers, designers, plumbers, manufacturers, health officials, code officials, trade organizations and others are all committed to the basic premise to provide safe drinking water and sanitation through proper management, care, reuse and conservation of our natural resources. One of the principal objectives for the founding of the World Plumbing

Council was to promote the plumbing industry's role in protecting the environment, citing this very premise. The plumbing industry recognizes the tenuous balance mankind must maintain to guarantee its very existence and embraces efforts to ensure we are preserving every drop possible.

In many countries of the world, the plumbing community contributes to the development and installation of heating systems and recognizes that we cannot continue the reliance on the increasing demand for fossil fuels for this purpose. We must also develop, promote and install energy efficient products and renewable systems to provide sustainable heating, safe drinking water and sanitation to the world.

The World Plumbing Council has developed the "Environmental Aspects of Plumbing" publication to create an awareness of the changes that must be made, both at individual household levels and through widespread governmental sponsored programmes. This publication is designed to become a living, ever changing compilation of case studies from around the world, which identifies both successes and failures to solve the environmental issues at hand. Among the topics/issues it will continue to feature are Water Supplies, Sanitation, and Renewable Energy Systems.

The World Plumbing Council extends its thanks and appreciation for the efforts of the India Plumbing Association and Lubrizol in sponsoring the publication and distribution of environmental Aspects of Plumbing to delegates attending the 10th World Plumbing Conference in New Delhi India.



*The Indian Plumbing Association and IAPMO India also launched the 2013 Green Plumbing Supplement - India. Pictured (L to R) are: Mr. Chandra Shekhar Gupta, Mr. Sudhakaran Nair, Mr. T K A Nair, Ms. Mili Majumdar and Mr. Russ Chaney. Also seen are – Ms. Megan Lehtonen, Ms. Neeta Sharma and Mr. Allen Inlow of IAPMO along with IPA Vice President Mr. B S A Narayan*

## WPC Distinguished Service Award

### *The World Plumbing Council recognises Henry Hung*

A glance at Mr. Henry Hung's resume will reveal a multifaceted personality. Henry is a quiet accomplisher. Managing Director of Ridgid Plumbing Services since 1990, most of you know him as a very successful plumbing professional. He has to his credit, landmark projects such as the Hong Kong Disneyland Resort hotel, Hong Kong Movie city, the 108 Storey International Commerce Centre at Kowloon, World Trade Centre in Hong Kong, and East Point City to name a few. With a Diploma in Marketing from Herriot Watt University in UK and an MBA from the University of Newcastle Australia, Henry achieved the necessary business acumen to augment his considerable technical skills.

His peer acceptance was just a formality as is evidenced by the fact that he is a fellow of the Chartered Institute of Plumbing & Heating Engineering, a fellow of the Royal Society of Public Health - UK and a Member of the American Society of Plumbing Engineers to name just a few elite technical associations.

Henry Hung has contributed substantially in his 12 year tenure as an Executive Board member of the WPC including three years as Deputy Chairman. Notable among them has been his efforts in getting the Health Aspects of Plumbing translated into Mandarin. He has championed the cause of individual membership and when the scheme was instituted, his was the first name in this category. He was the World Plumbing Conference Chairman in 1993, a hugely successful event in the annals of WPC history.

It was undoubtedly the high esteem that he is held in Hong Kong that when the SARS virus hit the Amoy Gardens, Henry was asked to review the plumbing system design and suggest steps to prevent such a horrific outbreak again.

Henry is a multi-tasker and wears another hat. Wouldn't you be surprised to know that he manages a company manufacturing lighting solutions! He has served on dozens of committees set up at various times by the Hong Kong Government and is involved in policy making in training, education and arbitration related to the plumbing industry.

A thorough plumbing professional, a trained manager, an educator, a communicator, a meticulous organiser, a marketing person and more importantly, a great human being!

A very deserving recipient of the WPC Distinguished Service Award – Mr. Henry Chi-Kuen Hung.



*Henry Hung, centre, receives the WPC Distinguished Service Award from WPC Chairman Sudhakaran Nair and Immediate Past Chairman, G P Russ Chaney*

# NSF International welcomes WPC

As part of the annual United Association (UA) Week in August of this year, NSF International welcomed both the World Plumbing Council (WPC) and UA members to visit their world headquarters in Ann Arbor, Michigan, USA. As part of the visit, WPC and UA members were able to tour NSF's 106,000 square feet, state-of-the-art testing laboratory showcasing their extensive array of equipment used for testing and certifying plumbing products to numerous local, state and international standards referenced throughout the UPC® and IPC®.

For 60 years, the UA of Journeyman and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada has conducted a comprehensive annual training program. The program has been held on the campus



*WPC and UA representatives at the NSF International laboratory*

of Washtenaw Community College (WCC) in Ann Arbor

for the last 29 years, and recently expanded to include UA Australia. As a full member supporter of the WPC, NSF was honoured to sponsor UA Week's WPC General Session.

NSF led the development of the American national standards for all materials and products that treat or come in contact with drinking water. In 1990, the U.S. EPA replaced its own drinking water product advisory program with these NSF standards. Today, all major plumbing codes require certification to NSF standards for pipes and plumbing components in commercial, industrial, healthcare and residential buildings.

Highlights of the tour included the GCMS/LCMS, wet chemistry, trace metals, extraction and exposure labs. In addition, the members saw the microbiology, drinking water treatment systems, plastics, grease interceptors, pools and spa labs. They witnessed a plumbing product undergoing a performance test. Everyone was excited to see the pipe burst pressure test!

With the NSF HQ located just 2 miles from the WCC/UA campus; it was a perfect opportunity for WPC and UA members to tour their ISO/IEC-17025 accredited laboratory. With more than 211,000 square feet of laboratories globally, NSF offers complete testing and certification service from "Source-To-Tap".



*From left: Shayne La Combre, WPC Board and CEO Plumbing Industry Climate Action Centre, Australia; G P Russ Chaney, Past Chairman WPC and CEO IAPMO, USA; Clif McLellan, VP Global Water at NSF, USA; and Elmar Esser, WPC Board and Chief Executive at ZVSHK, Germany*

## Grey water reuse in buildings: The Portuguese approach

**The Mediterranean climate, which influences a large part of the Portuguese territory, creates specific problems in the management of water resources, whose worsening, in terms of the water balance, is forecast in the short to medium term.**

In fact, various entities, such as the United Nations Environment Programme and the World Water Council, warn that, within a few decades, the Mediterranean basin will be one of the regions on the planet with the greatest water stress or water scarcity problems.

The annual use of water in Portugal is, in average terms, 10km<sup>3</sup>, still less than that available in an average year (16km<sup>3</sup>), but the typical seasonality of the Mediterranean climate and the irregularity of the spatial distribution of this resource (in addition to the effects of climate change) mean that, in some regions of the country, there are growing situations of shortage. Affected by some serious droughts in recent decades, Portugal has paid growing attention to this matter even though government policies in this area for the efficient use of water are not very consistent and are relatively weak.

The problems are made worse by the high losses and inefficiencies in water management. Portugal has the 6th largest water footprint in the world, with an indicator of 2.26 million litres per inhabitant per year. In a study prepared by the Portuguese Government in 2001, designated by PNUEA - National Programme for the Efficient Use of Water, the losses and inefficiencies in the various sectors of water users were estimated at about 3,100 m<sup>3</sup>/year, corresponding to almost 40% of total demand for water in the country.

With the objective of increasing the efficiency of water use, the PNUEA has established various areas of intervention, including, in the urban sector, 50 specific measures to be implemented with the involvement of government entities, sector entities, water authorities, consumers and non-governmental organisations.

Even though the PNUEA did not have the implementation planned by the Portuguese Government, it brought awareness to society of the extent of the water management problem in Portugal and the need to study and apply water efficiency measures on all levels, including the building sector. As a consequence, some universities, companies and municipal water authorities decided, in 2007, to create a non-profit NGO called National Association for Quality in Building Installations (ANQIP), aimed at the promotion of water efficiency in buildings, among other objectives.

Taking into consideration the measures proposed in the PNUEA for the building sector, ANQIP sought to systematise the interventions leading to an efficient use of water in the building cycle, establishing a guiding principle called the *5R principle*:

-  **Reduce consumption**
-  **Reduce losses and waste**
-  **Re-use water**
-  **Recycle water**
-  **Resort to alternative sources**

Regarding the systems of re-use and recycling of grey water in buildings, the lack of standards and regulations in Portugal led to some experiences which revealed risks to public health due to deficiencies in design, operation or maintenance. In this respect, ANQIP believed that, in these systems, special attention should be given to water safety aspects.

In fact, this understanding within the Bonn Charter recommendations, published by the International Water Association for the supply of water, argues that the management and control of systems should be based on a Safety Plan, in accordance with WHO guidelines, considering resources, technology available and the reality of each country.

To establish technical recommendations and guidelines for projects, ANQIP has drawn up the Technical Specification ETA 0905 (which can be found at [www.anqip.com](http://www.anqip.com)), which states that a Security Plan must also be prepared for reuse systems and gray water recycling in buildings, with an initial version of the responsibility of the installer, but which is periodically updated by the user.

For public health and technical reasons, the systems must also be certified under the terms of Technical Specification ANQIP ETA 0906, which requires a prior analysis of the project by ANQIP, inspections during construction, the certification of installers, a maintenance plan and the Safety plan, also approved by ANQIP. <http://www.anqip.com>

## Dates for Your Diary

### World Plumbing Day 2014

March 11, Every year, Everywhere!

### International Emerging Technologies Symposium

Crystal Gateway Marriott, Arlington, Virginia USA

23-24 April, 2014

### ISH China & CIHE 2014 Beijing

New China International Exhibition Centre (NCIEC) Beijing, China,

13-15 May 2014

### World Plumbing Council General Meeting

Venue to be confirmed, Singapore

30-31 May 2014,

### Singapore International Water Week (SIWW)

Singapore 1-5 June 2014

### ISH CIHE SHANGHAI

Shanghai New International Expo Centre, Shanghai, China

3 - 5 September 2014

### IAPMO 85<sup>th</sup> Annual Education and Business Conference

Hilton Minneapolis, Minnesota USA

14 – 18 September 2014

### ASPE Convention & Exposition

McCormick Place Chicago Illinois USA

22-23 September 2014

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***The World Plumbing Council aims to unite the world plumbing industry and promote the role of plumbing in improving public health and safeguarding the environment for the benefit of all***

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