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My Page

M K Gupta
Managing Editor, IPT



Few years back, just after taking over the office, our Hon'ble Prime Minister Mr Narendra Modi launched "**SWACHH BHARAT ABHIYAN**" to achieve the important and much needed mission in India – **PROPER SANITATION FACILITIES FOR ALL.**

In my opinion, with a view to achieve success in the above mission, following are the key issues to be addressed:

- Providing safe potable drinking water to each and all
- Providing proper toilet facilities to each and all, especially to women and girls' schools
- Disposal of garbage / solid waste in a proper scientific manner
- Providing skill training at every level so that the critical issues are managed properly
- Eradicating manual scavenging and dry latrines
- Education and implementation relating to the safety of sanitary workers

Many initiatives have been taken by Govt. & Non-Govt. Organizations to achieve the ambitious targets and yet as per many strategic surveys, a lot of work still needs to be done to convert these dreams into reality in a practically possible manner.

Water is the single most critical element for our daily sanitation and hygiene requirements, however, its increasing scarcity has caused us to re-look how water conservation methods can be adopted at a National level. Presently Indian Plumbing Association is actively involved in this crusade through its Chapters all over India, by doing various campaigns like "**I SAVE WATER**".

Toilets are being built and provided on a mass scale at various levels by different organizations but we need to ensure that these are functioning properly, need to be designed as per local conditions with sufficient water supply, security, lighting and are properly maintained so that they do not create unhygienic repercussions. Only numbers should not be projected for records.

The disposal of garbage all over the country is a matter of great concern as still in most locations it is not properly handled in a systematic and regularized way. The system needs to be implemented both by self-discipline and by responsible authorities. It is important to ensure that garbage cleaning does not become a photo opportunity, but a result oriented practice in our daily life.

Sewer deaths of **SAFAI KARMCHARIS / SANITARY WORKERS** have been regularly reported in our country. On average one person dies every five days while cleaning sewers and septic tanks. The Court and responsible bodies need to take necessary steps to prevent such deaths by adopting all the safety precautions and guidelines. Also, manual scavenging has to be totally eradicated from our system.

Finally, we need to examine, why we fail in achieving our targets - whether it is because of rampant bureaucracy or lack of adoption of standard operating procedures or self-discipline and thereby address the root cause of our let down.

IPA has been rigorously working to contribute in this regard, relating to standardization, education, training or awareness through various means. I am sure that this special issue will motivate us towards achieving our goal of "**SWACHH AUR SUNDER BHARAT**".

M K Gupta



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W A T E R H E A T E R S

Bina Swachh Jal, Swachh Bharat Kaise Hoga ?

Without Clean Water How Can We Have A Clean India

Gurmit Singh Arora

National President, Indian Plumbing Association

A smart city cannot be smart if it does not provide clean, potable water and takes care of the sanitation needs of its citizens. These are the basic needs of any human and these needs are not defined by any caste, creed or colour.

The Government's thrust with the 'Swachh Bharat Mission' over the last 4 years makes us realize exactly what Richard Thaler, the 2017 Noble Prize winning economist has portrayed in his contribution to behavioural economics, a field of micro-economics that applies the findings of psychology and other social sciences to the study of economic behavior. He explains how small inventions can help individuals or communities to achieve massive behavioural changes. The Swachh Bharat Mission is big - at a scale and of such large proportions even unimaginable to Economist Thaler, nudging rural communities in India to change their habits of open defecation through a positive behavioral change in using house hold toilets. At a scale unprecedented in the world, 550 million people practicing open defecation in rural India were to be nudged into changing their behavior into using toilets. Rural sanitation coverage has increased from 39% by the Swachh Bharat Mission in 2017 to over 98% today, the challenge now is to sustain the changed behavior.

IPA today is also on a historical mission, to make a positive behavioural change in society and particularly in India, to save our future generations.

Globally the per capita availability of water has decreased in the 1950's from 16,800 cubic meter to 6,700 cubic meter in 2000 and will reach a low figure of 2,500 cubic meters by 2025. A World Bank Report states 85 countries to be water stressed with over 2.5 billion people already living in high water stress areas. Every product requires virtual water to manufacture. Whether the product is ingested, used, worn or grown it requires water to consume or produce.

For example: A 125 ml cup of coffee requires 140 litres of water, a glass of 250 ml of beer 75 litres of water, and a cotton T-shirt of 250 gm requires 2000 litres of water to manufacture or produce.

The world's population today stands at 7.7 billion, poised to grow to 7.95 billion in 2022 when India turns 75. Out of 7.7 billion today, your very own country's population stands at 1.35 billion i.e. 17.5% of the world's population with only 4% of world's water. It is predicted that India's population will touch 1.60 billion by 2030. Massive urbanization and migration from villages to towns will lead to water bankruptcy in the already highly stressed urban centers in India. What will worsen the situation further is the advent of global warming and if this happens, as we are witnessing today, we can look at the melting of glaciers and therefore drying up of rivers, which at present, feed millions of people through its pathway both for agriculture and domestic consumption. Therefore, the areas with water will be areas of draught in future.

Globally, buildings consume 25% of the water and agriculture about 60%. Buildings are responsible for one third of the emissions of the greenhouse gases. We are in the envinous position of dealing with water and hence, it is our responsibility to optimize the use of water and conserve this natural resource through various initiatives.

70% of the communicable diseases are communicated through bad quality of water or due to lack of adequate sanitation. Incidentally, unknown to many, is the fact that diarrhoea is a bigger killer worldwide than even cancer and Aids. The number of child deaths caused by diarrhea reduced by a third between 2005 and 2015, but alarmingly, mortality rates remain highest in some of the world's poorest countries, with diarrhoea killing almost half a million children under the age of 5 years each year worldwide. This is from a new study published called "Global Burden of Disease" on June 1, 2017.

Diarrhea accounts for 4% of all deaths and 5% of health loss due to disability worldwide. Gastrointestinal infections kill 2.2 million people globally each year. These deaths can be prevented if we provide clean potable water and become open defecation free (ODF).

The IPA has launched the "I Save Water" mission at the hands of Mr. Russ Chaney CEO, International Association of Plumbing and Mechanical Officials (IAPMO), USA and Managing Director, American National Standards Institute (ANSI); Mr. V. Suresh Chairman, CII Indian Green Building Council (IGBC) and above all Miss Panku Pravin Bora who spoke of saving water and reducing consumption of water 2 years back when she was just 14 years. Her words brought about a massive change and inspired Pravin Bora, her Dad and our Pune Chapter Chair to start the "I Save Water" mission at the IPA Pune Chapter. In 2018, Pune Chapter saved 20 crore litres of water which is documented by propagating the use of Low Flow Fixtures. IPA's target in 2019 is to save 100 crore litres and in my tenure of 3 years as National President, I commit to save another 500 crore litres in 2020 and to make this a B to C or a people's movement, thereby targeting to save 1,000 crore litres of water in 2021.

The IPA will rewrite history and will ensure that we not only protect but save this precious commodity and conserve water at source.

The IPA has many activities and has grown over 25% in the calendar year 2018. My Vision 2019 document, published in the IPT magazine of January 2019, sets to grow all activities of IPA by 25% in 2019. I therefore seek the co-operation from each member of IPA to work hand in hand in achieving our mission.

We need maximum number of volunteers to join the 'I Save Water' mission. Please write to me at president@indianplumbing.org

A copy should also be sent to email isavewater@indianplumbing.org, especially created for public use for the 'I Save Water' mission, which will be handled by Mr. Rahul Sakore (National Convener, 'I Save Water') and Mr. Apurva Shah (National Vice Convener - 'I Save Water'). Join the campaign to ensure that we leave some clean water for our generations to come.

**Jal Hain To Kal Hain,
Jal Nahi To Kal Nahi!**



Gurmit Singh Arora
National President
Indian Plumbing Association

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A CASE STUDY OF SANITATION OF SLUMS IN NOIDA, U.P.

Self-Building Mechanisms under Swachh Bharat Mission

By Ms. Suhani Gupta

New Okhla Industrial Development Authority composed as NOIDA is a planned city, established as an industrial town, and an extension of Delhi NCR (National Capital Region). As a newly established industrial city back in 1976, it has seen an influx of developers and builders, developing most of its land into high end commercial and residential areas.

Concurrently, this industrial focus has allured many immigrants from nearby states like Bihar and Uttar Pradesh in search of work, who now play an active role in the functioning of the city by serving as labourers, factory workers, domestic workers and low-wage jobs in offices/commercial areas. They settled in some of the most insanitary and vulnerable areas of the city like vacant lands around high tension towers, near city drains, swamps and other low lying areas, which are now recognized as slums. Commonly considered as illegal occupants of the city, refrained from the access or provision of any basic infrastructure, they have developed their own community organization and self- building mechanisms in congruence of their basic need of building household toilets.

The self-building practices in the slums of Noida in itself is intriguing and highlights the strengths of these low income communities in building their own infrastructure in spite of lack of resources like space, money and secured tenure. After looking deeper in these communities, several stories of struggle due to lack of toilet, challenges faced in building household toilet, community participation and working around local solutions are witnessed.



Left: Image showing the constructed toilet at the roof of a house in J.J Colony, Sector-8, Noida, Right: Image of a septic tank getting constructed in one of the slums of Noida.

Amongst many witnessed stories, one household toilet building story is of Tara Devi, a resident of J.J. Colony, Sector-8, Noida. She settled in the slum 25-26 years back along with her husband, 2 sons and 2 daughters one of which is now married. Her husband is the only earning member in the family and could not afford to build toilet at their home. Her entire family was dependent on the nearby community toilet facility. As a mother of two daughters, she often faced insecurity and helplessness during closing hours of the community toilet. She constructed her home toilet back in 2018. It cost her around Rs 2 lakhs to build the entire house, septic tank and toilet. Due to lack of space, the septic tank has been built below the ground floor of the house and toilet is built on the first floor. She exhausted her entire savings and took loans from various formal and informal sources. Out of entire amount, she borrowed Rs.50,00/- from Ujjivan small finance bank at monthly instalments for one year, Rs.40,000/- from her son-in-law and remaining from her other friends and relatives. In spite of the struggle, she relishes the convenience of having a household toilet.

The struggle of money and space has encouraged community participative models of toilet building. Urmila, a resident of J.J colony, Sector-8, Noida constructed a shared pit latrine along with her five neighbouring houses. Each of these households, living in the settlement since 25-30 years, constructed household toilets with shared pit latrine 16 years back. It cost around Rs.15,000 to construct the shared tank and around Rs.1000 to construct a toilet in each house. The tank is constructed without plaster at the bottom and did not require any cleaning for initial 7-8 years. It now requires to be cleaned once or twice every month costing approximately Rs.1400 for each cleaning, which is divided among six houses. As per Urmila, before they constructed the toilet they used to defecate in the open or used mobile toilet vans installed by the authority which were removed later. As children grew up, they felt the need to construct toilets at home and due to lack of space and money considered constructing with shared money and space.

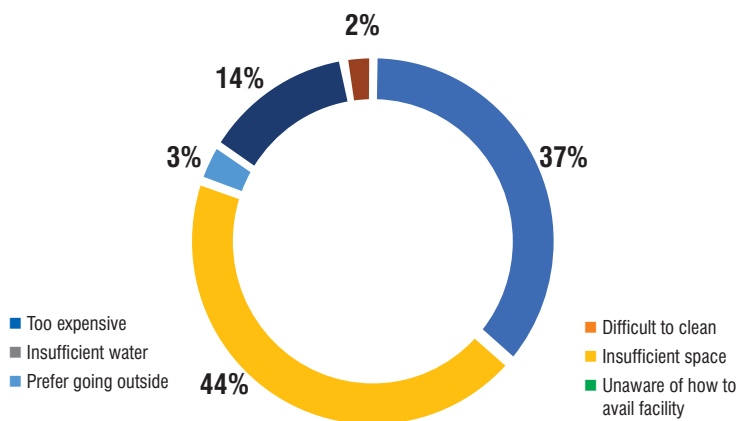
Many such models of self-organizing process exist in these slums, some of which are sharing of single toilet by many houses and paying monthly rent to the owner, household toilets with shared septic tanks for as many as 10 households, some have connected their toilet's waste outlet pipes to the nearby authority's sewer network



Left: Image of Tara Devi with her home toilet, Right: Image of shared septic tank constructed by six households

Centre for Urban and Regional Excellence (CURE), a development organization known for its community participatory methods of planning and implementation of water and sanitation services in low-income settlements, started working in Noida in June 2015 in 6 slums comprising 11,270 households. It surveyed about 10% households (1127) and gathered various findings regarding the condition of toilet facilities in the settlements. As per survey, 37% households reported that cost of the construction of toilet is unbearable for them, 44 % said insufficient space is the major reason for not constructing home toilets and other 19% reported other reasons for not constructing toilets which included lack of house ownership, prefer going in open etc.(Data Source: Baseline survey, 2015, Centre for Urban and Regional Excellence)

Reasons for not having toilet facility at home



Left: Data showing the reasons for not constructing home toilets in six slum pockets of Noida - total households surveyed 10% of total households (1127), Right: Image showing narrow streets of slums. (Source: Centre for urban and regional excellence)

While CURE continued to mobilize and nudge the community to build home toilets through its various community led processes and as surveyed in February 2019 (one out of 6 slum settlements in Sector-8, Noida) – 80% households have home toilets out of which almost 60 toilets got constructed by community after CURE's intervention and other 20% use community toilet. The settlement is now at a stage of declaring itself as ODF community adding to city's SBM intention of becoming an ODF city.(Data Source: Baseline survey, 2015, Centre for Urban and Regional Excellence)



Images of households constructed home toilets in J.J Colony, Sector-8, Noida (Photo source: Centre for Urban and Regional Excellence)

Self-building is a reality and it enables people to build their own infrastructure as per their need, but it also requires final mile plug in and connectivity with the city infrastructure for a long term solution. As per CURE's survey, 98% households does not have access to a sewer network. Hence, the waste is managed from these toilets in insanitary ways. It was identified that 62% households have pit toilets, 14% manage it through soak pits, 22% through septic tanks and 1% let the waste go into the open drains. The waste goes to soak pits, imposes a high risk of contamination of ground water which is also one of the major source of water for most of the households. Septic tank imposes further challenges for the residents, as it needs to be cleaned every 2 years and costs around Rs. 2500 per cleaning which is also one of the factors due to which people sometimes avoid using their household toilet and prefer defecating in open. Toilet waste going into the drains could be a reason of serious health concerns for the residents, especially children. (Data Source: Baseline survey, 2015, Centre for Urban and Regional Excellence)

Looking at the other side of the picture, Noida is one of the new participants in the urban initiative of cleanest city ranking survey—Swachh Sarvekshan, 2019 under Swachh Bharat Mission-Urban (SBM-U) National Scheme. The city is making its best efforts to manage its solid waste and promoting open defecation free city by encouraging large scale citizen participation and involving local NGO's in its initiatives. Some of its initiatives included installation of mobile toilets, construction of new community toilets, awareness campaigns, introducing Swachhta App and regular cleaning of public places. While the city is making its best efforts towards its mission, it lacks in recognizing the immense contribution of the city's slums in achieving its open defecation free mission with no or little city interventions.

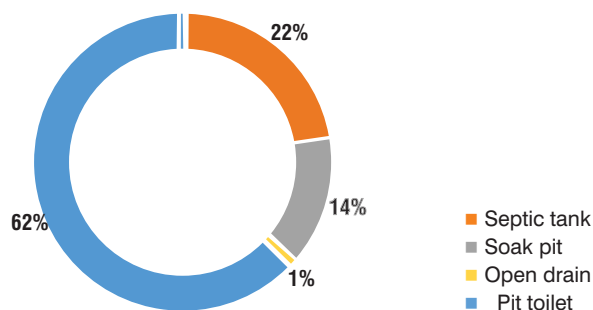
While the city and community mechanisms functioning simultaneously towards Swachhta, it is immensely important to recognize the community's strength, build over it and fill the gaps. A simple access to sewer network for proper waste disposal, provision of loans or preliminary incentives for constructing household toilets are simple way forward. As per CURE's survey, 65% of people out of these slum settlements serve as daily wage workers in nearby factories, hence play a major role in overall growth and development of the city and basic sanitation services are requisite for people living in these slums to live a healthy lifestyle and keep adding to the city's growth.



Ms Suhani Gupta

Suhani Gupta is an Architect with an adequate experience of work on various urban research and development projects. She has gained significant on-ground experience of working in slums and implementing water and sanitation services through her association with Centre for Urban and Regional Excellence (CURE).

Waste water disposal system



Data showing the modes of waste water disposal in slums of Noida,



Image of a typical plaster lined septic tank constructed in the slums. (Source: Centre for urban and regional excellence)



Mobile toilets installed by Noida Authority under its participation in SwachhtaSarveksha, 2019



Wall paintings done by Noida Authority to improve public spaces during SwachhtaSarvekshan, 2019

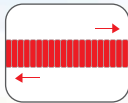


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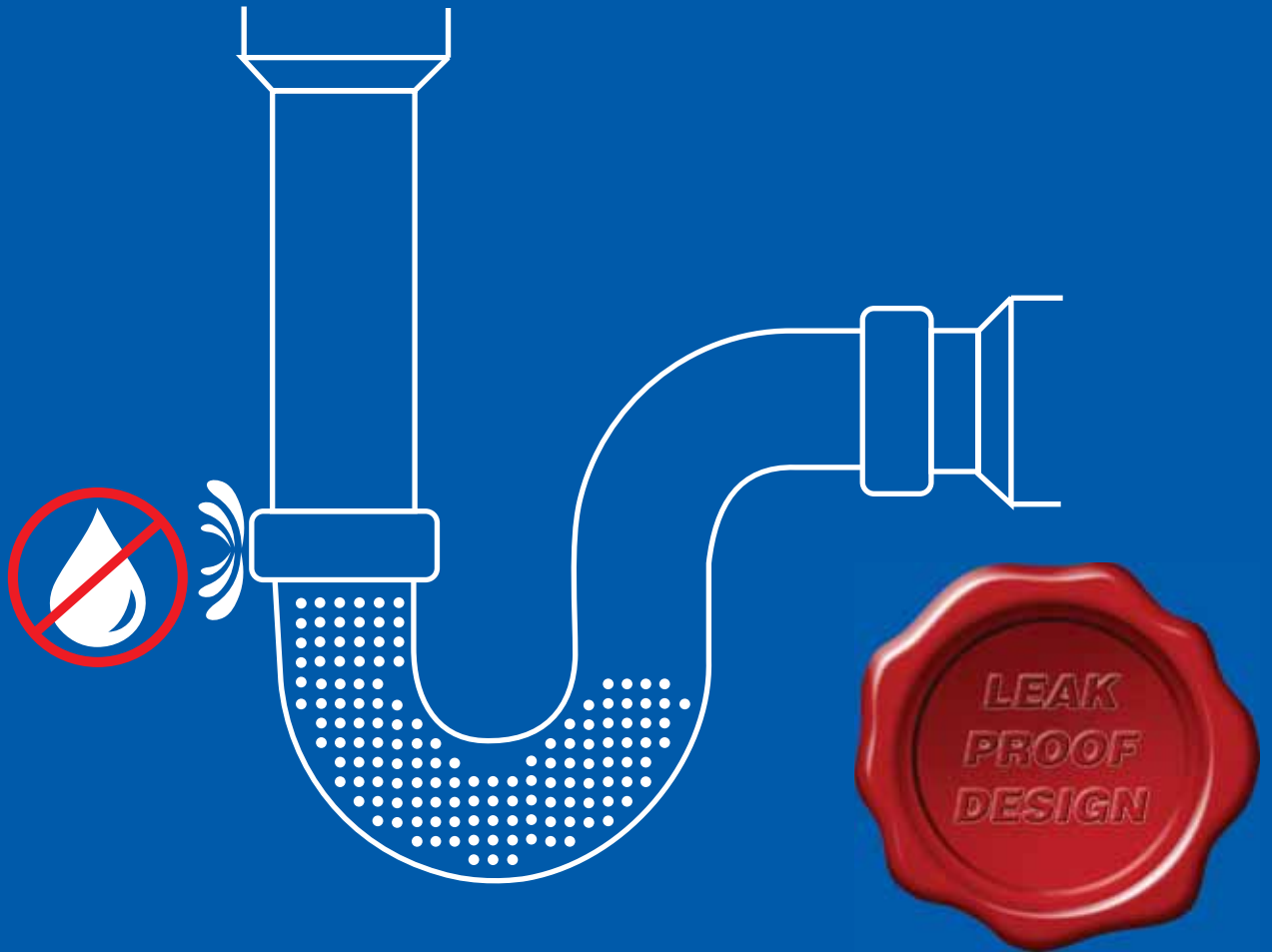




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SWACHH BHARAT

The Clean India Mission - A Reality Check-Up

By Dr. Shweta Gupta



As per records available, around 50-60% of Indians do not have access to safe drinking water and proper sanitation / toilets and have to defecate in open fields. Such overwhelming majority of those without access to sanitation facilities poses a formidable obstacle in the development of the nation.

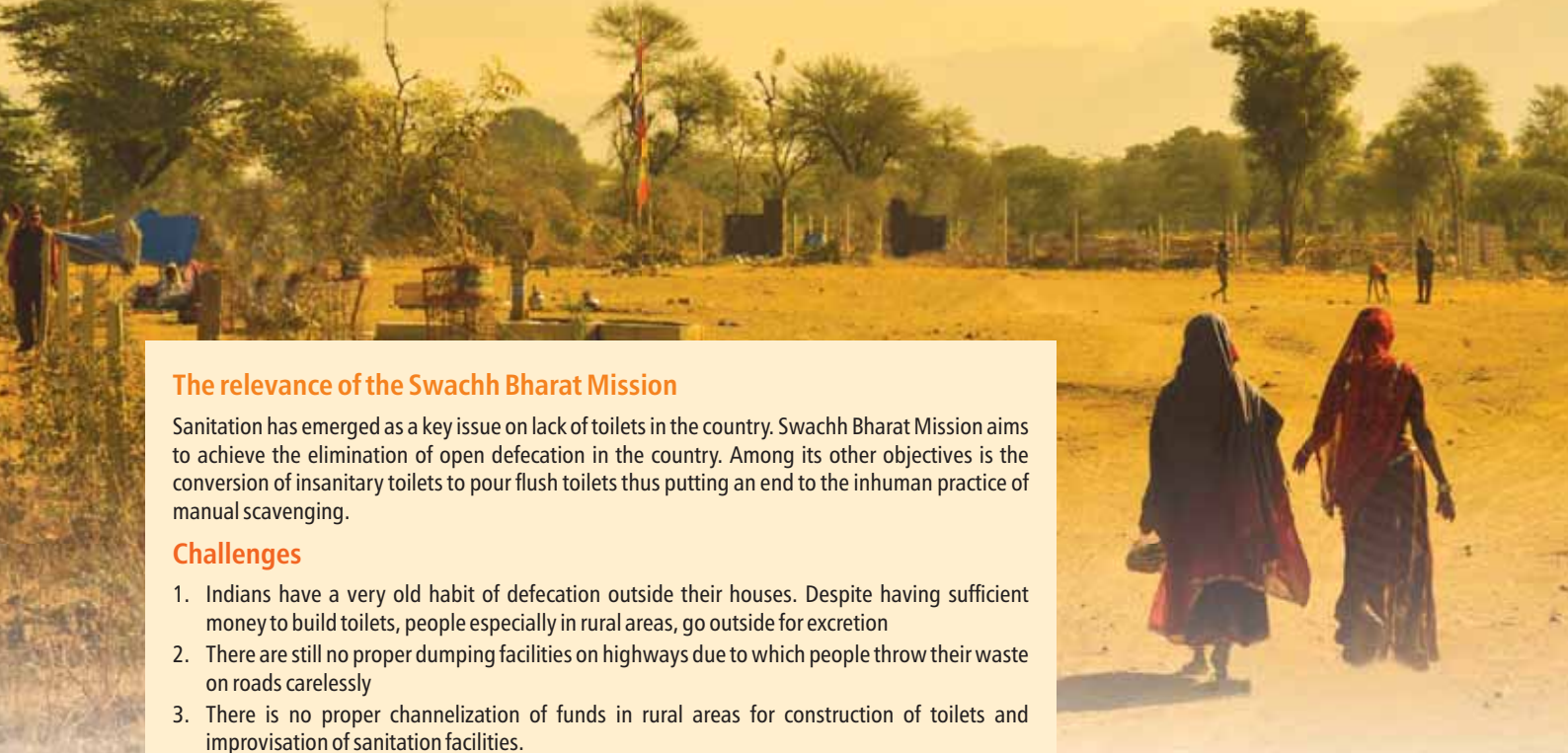
In India, children under five years of age die every year due to diarrhea. Neo-natal deaths occur due to sepsis. Such problems are a result of inadequate access to safe drinking water, sanitation and hygiene, as well as absence of infection prevention and control facilities. Any child not having access to adequate sanitation in early years faces health problems for the entire lifespan despite having proper food. Besides health risks, the life of girls and women is unsafe. Numerous incidents of rape and murder occur when females go out alone to urinate or defecate.

Such problems are preventable. Availability of adequate sanitation facilities and their usage by everyone can save lives, ensure nutrition, productivity, women's security and dignity.

For India to grow, Indians to stay healthy and to project the making of a confident power, it is imperative for India to solve its sanitation issue.

In this backdrop, our Hon'ble Prime Minister Mr Narendra Modi started the Swachh Bharat Abhiyan or Clean India Mission to address the challenges of water, sanitation, and hygiene. This flagship programme of the Union government aims to realize the dream of a Clean India by October 02, 2019.





The relevance of the Swachh Bharat Mission

Sanitation has emerged as a key issue on lack of toilets in the country. Swachh Bharat Mission aims to achieve the elimination of open defecation in the country. Among its other objectives is the conversion of insanitary toilets to pour flush toilets thus putting an end to the inhuman practice of manual scavenging.

Challenges

1. Indians have a very old habit of defecation outside their houses. Despite having sufficient money to build toilets, people especially in rural areas, go outside for excretion
2. There are still no proper dumping facilities on highways due to which people throw their waste on roads carelessly
3. There is no proper channelization of funds in rural areas for construction of toilets and improvisation of sanitation facilities.
4. The officials responsible for the construction of toilets in villages scoff at people (especially females) and harass them which is quite immoral in its sense
5. Corruption, being rampant in offices, poses challenges to the mission. People in need do not get enough funds from the government and they have to arrange money on their own to build a suitable toilet
6. Ground reports suggest the non-cooperation of officials in having proper excretion, dumping and sanitation facilities
7. Need of more toilets on national highways and roadways and public places

Why 'Swachh India' is the biggest women's movement at the moment

Millions of women in India do not have access to toilets and defecate in the open. A study shows that women who use open defecation sites are twice as likely to be sexually assaulted. It is against this backdrop that the Swachh Bharat Mission assumes greater relevance, bringing in its scope issues of women's safety, their access to higher education, even challenging the caste system.

At a time when the government is claiming success for its flagship Swachh Bharat Mission, a survey has revealed that around 40% of the teenage girls in the country still have to defecate in the open. The survey also found that 46% of teenage girls use unhygienic materials during menstruation and that one out of every second girl was anaemic.



Swachh Bharat Swachh Vidyalaya

Swachh Bharat: Swachh Vidyalaya is the national campaign driving 'Clean India: Clean Schools'. A key feature of the campaign is to ensure that every school in India has a set of functioning and well maintained water, sanitation and hygiene facilities. Water, sanitation and hygiene in schools refer to a combination of technical and human development components that are necessary to produce a healthy school environment and to develop or support appropriate health and hygiene behaviour. The technical components include drinking water, hand washing, toilet and soap facilities in the school compound for use by children and teachers. The human development components are the activities that promote conditions within the school and the practices of children that help to prevent water, hygiene and sanitation related diseases.



The Conclusion

What has been aggravated over hundreds of years due to illiteracy and improper habitual activities may not be given up in a short span of few months or years. However the Swachh Bharat Abhiyan has achieved a great success in spreading awareness across the country to get rid of many incorrect and unhealthy practices. As a result good progress has been observed through the Swachh Bharat mission.



Dr Shweta Gupta

Dr Shweta Gupta has been actively involved in many activities relating to Swachh Bharat Mission and for education & training to under privileged.

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Jeevan bhar ka saath...

NECESSITY FOR MANDATING CODES FOR SUSTAINABLE DEVELOPMENT



By Sharat V Rao

Sustainable development encompasses in its scope several aspects of construction, amongst which water and waste management forms an important discipline. Increase in demand from agriculture, industry and population's needs, changing climate patterns, rising levels of pollution and urbanization, has made water resources management to be the greatest challenge for our country.

Agriculture and industry happen to be the major water guzzlers accounting for almost 80-85% of the total consumption. The balance 15-20% of the fresh water required is for human habitation. This fresh water consumed also adds to the pollution levels making the issue more damaging.



1.0 WATER CONSERVATION

To counter the alarming prospects of water scarcity, calls for austere measures. Effective deployment of technologies, policies, mandates and institutional measures are of great relevance in water management. Water conservation is the most viable option available. Water conservation can be defined as any action that reduces the amount of water withdrawn from water supply sources, reduces consumption, reduces the loss or waste of water, improves efficiency of water use, increases recycling and reuse of water or prevents the pollution of water.

Water conservation measures could be two fold.

- 1) Reducing consumption at source
- 2) Reusing the consumed water
 - Reducing consumption at source
 - Change in civic habits
 - Use of low flow efficient fixtures
 - Use of efficient irrigation practices
 - Eliminating leakages
 - Reusing the consumed water
 - Recycling – recycling can reduce the consumption of water by nearly 50-60% with additional benefit of reduced pollution
 - Rain Water Harvesting: - This can be in the form of storage or recharge pits. The basic objective is containment of runoff to the maximum extent possible within the project area thus reducing the load on the public system

2.0 STAKEHOLDERS

Managing water resources is not just about economics. It has to be supplemented by extending best practices and good governance. India is poised for a quantum

economic leap in the coming years. The Government has already announced the creation of 100 plus Smart cities pan India. Sustainability will form the bedrock around which these developments will be based. Smart cities, as the name suggests, will not only be restricted to intelligent buildings but it shall be a development which will ensure a pollution free environment encouraging minimal use of public resources, most important being water and power. Efficient storm drainage management with emphasis on harnessing of surface runoff and groundwater enhancement will be the core essence. This will involve the participation of various stakeholders.

Some of the major stakeholders could be identified as:-

- Government bodies
- Educationist and trainers
- Consultants
- Contractors
- Developers
- Manufacturers

It can be seen from the above list that there is an inter dependency in the functions of the stakeholders. There has to be synergy between them for effective implementation. This synergy can be achieved through a vital component i.e. codal provisions which will define and mandate the action plan. Since the level of application of sustainability measures will vary from state to state depending on its development status, it may be more prudent to entrust the responsibility of making codal provisions / or bye-laws to the State Governments but under the purview of a Central Agency or Board. For example, what is applicable for a metropolitan city may not necessarily hold good for a Tier - 2 city. Special concessions may have to be given for such developments to make it viable.

CODES

The intent of the codes for sustainable homes will essentially be to assess the building or construction for environmental rating and certifying the performance. The following components need to be addressed in these codes, as far as water resource management is concerned.

- Rate of supply per capita or occupant
- Sources of water
- Water metering with emphasis on leak detection
- Use of low flow fixtures. Fixtures to be rated and tested by an approved and accredited laboratory
- Water recycling measures
- Rain water harvesting
- Reducing water usage with proper landscaping and watering techniques
- Storm water management
- Solar heating
- Re-use and recycling of treated sanitary waste

3.0 POLICY INSTRUMENTS

The codes should have a sustainability rating system either in the form of star ratings (one star to five star) or point ratings to communicate the overall sustainability of a development. The ratings should establish a minimum standard which can be defined as the base entry level. Further ratings or points should be related from this base entry level.

The sustainability ratings which a development achieves should represent the overall performance. The sustainability rating could cover various aspects of development out of which water and waste management could be one of them.

It is obvious that to achieve the above mentioned goals there is an extra cost appended to it. It is also a well established fact that incentives prove to be a tangible encouragement for owners and end users to pursue sustainable development.

Countries such as Singapore, Israel and parts of America have used these incentives very successfully. For example in Singapore “NEWater” (recycled water) is supplied at a lower rate than regular water and also the Government does not apply its Water Conservation Tax for sale of NEWater.

One form of incentive that can be applied is “TIERED WATER RATE STRUCTURE” something similar to what prevails in power consumption. To implement this, baseline water use will have to be set up which should cover all types of users and the type of use such as residential, commercial, industry or assembly type structures. The water rate that will be charged will move upwards as the baseline figure is crossed. The objective of this incentive is to benefit the end user.

Incentives in the form of Reduction of Property tax, grant of additional ‘FAR’ (Floor Area Ratio) is also workable. This incentive will benefit the project proponent thus encouraging him to spend the extra money and efforts to make the development sustainable.

Indian Plumbing Association (IPA) in its endeavor to meaningfully contribute in the field of water and energy conservation published a Code titled “Water Efficient Products – India (WEP-I)”. This code highlights the concept of rating of a fixture or sanitary appliance in terms of its water efficiency. This code has been revised and updated in 2018 and has been rechristened as India – WE Stand (Water Efficiency and Sanitation Standards for the Built Environment).

4.0 CONCLUSION :

As our economy becomes more advanced, wealth will be generated not so much from consuming raw resources but more so from conservation and innovation.

Developing a national program with emphasis on codes and bye-laws, encouraging good water resource management is the key to the way forward.

A comprehensive code on sustainable development will give the necessary mandate to the enforcing authority to apply the required provisions.



Sharat V Rao

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Plumbing Upgrades that Create Unexpected Problems

A Solution with a Twist in the Tail

By Sourabh Sheth

Editor's Note:

IPA has always been requesting its members to contribute technical articles for IPT. Sadly, the response has not been very bright. Hence, it is always exciting when we receive an article from a new IPA member. IPT is proud to publish an article on Air Admittance Valves in this March issue of IPT by IPA's new member from Navi Mumbai - Mr. Sourabh Sheth.

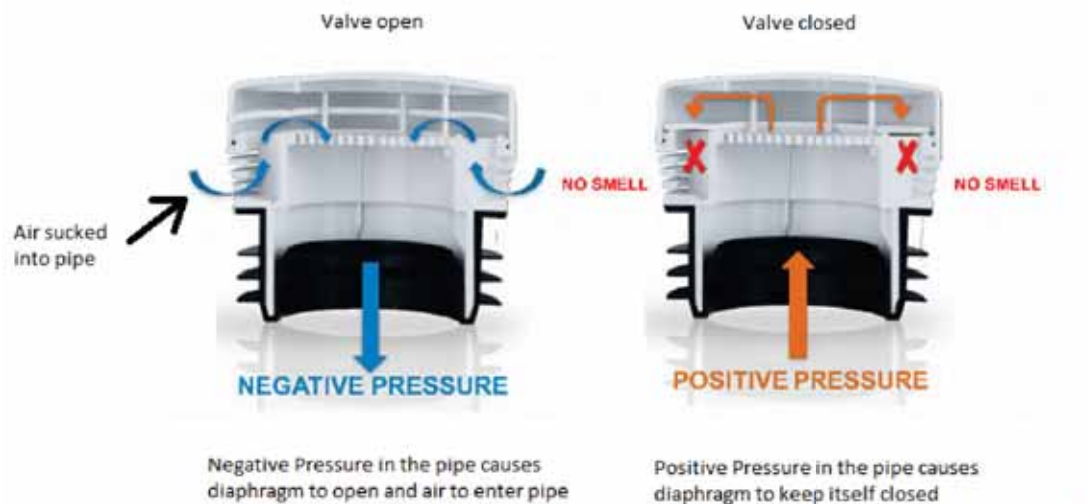
Introduction

In today's age, a building's external design is given more significance over its services design. Hence, there is a constant demand for innovative products which can work in complex and stringent architectural designs. There are many such innovative products available in the international markets which help us in different ways in various challenging situations.

In particular, today we are discussing about AAV.

What is AAV? And how does it function?

- AAV stands for **Air Admittance Valve**
- AAV is new innovative product which is basically a modified version of a regular PVC Vent cowl
- AAV is a small device which has a diaphragm installed within and it keeps itself closed all the time and it can only open when it senses that there is a negative pressure created in the pipe line. These are basically the disturbances created in the pipes due to the heavy movements of air and liquids passing through. (i.e. pressure in pipe line is less than the atmospheric pressure)



AAV image credit: www.vestit.it

- AAV keeps the entire drainage and vent lines sealed from the top and helps in keeping away unwanted foul smell, harmful gases and bacteria from entering in to the ducts and from the terrace roof
- This device makes sure that the pipe lines do not allow the odour / foul air out side to the environment. It can only suck air from outside
- AAV also helps to reduce siphonage and noise to a significant level

AAV's mechanism works very well and it is commonly used in various types of building structures around the world.

However, today we shall see how the use of AAV may give arise to different and serious problems which could be truly terrifying and even life threatening.

Let us assume that there is a multi occupancy building structure of which the top floor and roof top is owned by a single commercial owner who is facing a lot of discomfort due to bad odour coming out from the soil and vent lines. So the owner decides to take an expert opinion on the matter. The plumbing consultant provides a simple solution to the owner and that is to remove the existing PVC vent cowls from the stacks and upgrade them with air admittance valves. Right after the old cowls were upgraded with the new ones; the problem of bad smell was resolved and the owner was subsequently happy and satisfied.

In the same building, an occupant residing at mid floor moves out of this flat and is away for a very long time. Since there is no occupant in this flat, the water seal in the plumbing fixtures starts depleting due to heat and evaporation over time. Soon after the water seal level falls below the minimum level, the water

seal breaks and the foul smell, harmful gases and highly flammable methane gas starts entering the occupant's entire apartment. The air pressure starts to neutralize itself through a broken water seal of a plumbing fixture (i.e. air enters the piping system from the atmosphere through the broken seal) and the diaphragm of the air admittance valve remains closed and the AAV actually acts like an end cap.

Note: According to the principle of least resistance, any pressure (positive or negative) finds the best possible way to neutralize itself - in the easiest and nearest way.

This scenario would be very lethal, since the highly flammable methane gas developed from the soil lines is entering only into the said closed apartment and collecting in high quantum in the apartment. And this indeed turns the entire apartment into a potential bomb awaiting to explode and the none of the occupants (apartment owners) or neighbours are aware about this 'bomb' which is ticking away just next door. The situation is even more serious because it does not give any sign or warning signals in advance.

AAVs can be a great solution for venting problems, but should never be the first choice. In fact, they should be the absolute last possible choice.

P.S. Venting of all the plumbing fixtures is a serious matter which is always taken very lightly and sometimes even ignored.

Caution! In any building structure, there must be at least one vent open to the atmosphere outside. An external, passive vent relieves positive pressure in the lines. No building should exclusively use AAVs - significant problems will result.



Sourabh A. Sheth

Executive Director, Sheetal Environs India Pvt. Ltd.
(Licensed Plumbing Engineers, Consultants & Contractors).

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IAPMO India Celebrates Opening of New Office, Laboratory

The IAPMO Group recently celebrated the grand opening of IAPMO India's state-of-the-art laboratory and office in Bengaluru, signaling the expansion of the recently acquired Aquadiagnostics' testing capabilities to include plumbing products testing in line with the IAPMO Group's other laboratories in key markets worldwide.

The testing laboratory offers testing for products to the 2017 Water Efficiency Products – India (WEP-I) standard published by IAPMO India; the 2019 Energy Efficient Products – India (EEP-I), which was released Feb. 28; ASME A112.18.1 and A112.18.2; and NSF/ANSI 61 and 372.

The inauguration at the new facility on Feb. 26 included a ribbon cutting and a special tour of the laboratory. Attendees included Mr. Gurmit Singh Arora, National President, IPA; Mr. B.S.A. Narayan, National Vice President, IPA; Mr. C.S. Gupta, Hon. Gen. National Secretary, IPA; Mr. B. O. Prasanna Kumar, Chairman, IPA Bengaluru Chapter; as well as IAPMO CEO Russ Chaney, COO Dave Viola and Tom Palkon, Executive Vice President of Water Systems for IAPMO R&T.

Mr. Russ Chaney remarked "I wish to congratulate the staff in India on this momentously important achievement. This testing laboratory is a testament to their hard work in serving the plumbing industry of India for the benefit of the Indian people's health and welfare."

Mr. Gurmit Singh said "We are really delighted that this lab has been set up for testing water efficiency and I can assure you that IPA will only specify products which are tested for water efficiency in the building industry."



Mr. Russ Chaney, CEO, The IAPMO Group and Mr. Gurmit Singh Arora, National President, IPA inaugurating the IAPMO India WEP-I laboratory and office in Bengaluru



The Testing Lab

The office and new testing laboratory are located on the 4th floor, No. 43, PMR Tower, Beretena Agrahara, Hosur Road, Bengaluru. Aquadiagnostics became part of The IAPMO Group, specifically with IAPMO India, and is on the 3rd floor of the building that houses the new office and lab.

"Aquadiagnostics in India is well known for the evaluation of water purification systems using national and international protocols of Bureau of Indian, U.S. EPA Purifier standard and NSF/ANSI 42, 44, 53, 55, and 58 standards," said Dr. Muralidhara Rao Sakhumalla, Managing Director of Aquadiagnostics Water Research and Technology Center Limited. "In 2004, it became the first laboratory in India to offer MS2 phage bacteriophage testing in water treatment systems. Due to its popularity, quality of testing services and reasonable pricing, manufacturers of water purification systems and components from countries including the United States, Vietnam, Korea, South Africa and France utilize the laboratory."

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Guests checking the various Water Efficiency Testing Facilities at the newly inaugurated lab



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POST SHOW REPORT 2019



International trade fair for plumbing, sanitation, bathroom & kitchen, renewable energy and home automation systems in India

SHOW PROFILE

ISH India powered by IPA is a premiere platform to source and network with the leading names and industry professionals from plumbing, sanitation, bathroom & kitchen sectors. The 3rd edition in Mumbai included highlights like seminars, focused business meetings and cutting-edge product displays giving business visitors a peak into the latest solutions, all under one roof.

With the Indian Plumbing Association as a partner and strong support from other top associations as a part of the Build fair alliance consortium, ISH India powered by IPA continues to be a preferred destination amongst the fraternity.

Edition	: 3 rd
Date	: 28 Feb – 2 Mar 2019
Venue	: Bombay Exhibition Center, Mumbai
Organiser	: Messe Frankfurt Trade Fairs India Pvt. Ltd. & Indian Plumbing Association (IPA)
Total Gross Sqm.	: 3,000
Exhibitors	: 62
Visitors	: 6,276

2019 Venue Map



EXHIBITION OVERVIEW



62 exhibitors
6,276 visitors

Show Highlights

- **Technical Seminar Area** – Sneak peak of the latest products before they are introduced to the market
- Launch of **Uniform Swimming Pool Code 2019**
- Launch of **We - Stand (Water Efficiency and Sanitation Standard) 2019**
- Launch of **"I Save Water"** campaign
- **Networking opportunities** with professionals from associations like:
 - Real estate developers from **CREDAI MCHI**
 - Builders from Builders Association of India (**BAI**)
 - Brihanmumbai licensed plumbers association (**BMPLA**)

Support from **top associations within the industry**



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Market Information

Indian Plumbing & Fittings Industry:

Indian plumbing industry currently valued at **USD 5** billion

Growing at **15%** per annum

Employs about **8 lakh** people

**Source: Accommodation times*

India PVC Pipes Market:

India PVC pipes market size valued at **USD 3.159** billion

Expected to grow at a CAGR of **10.2%**

Reaching **USD 6.224** billion by 2023

Better than copper pipes

**Source: Allied market research*

Sanitary Ware and Bathroom Fittings Market:

Indian bathroom fittings and sanitary ware market valued at

USD 5.95 billion in 2017

Expected to grow at a CAGR of around

10% between 2018-2023

Projected to reach

USD 10.48

billion by 2023

**Source: Business Wire*

Indian Sanitation Market:

Total budgetary support for Swachh Bharat Mission:

INR 15,343 crore

(Budget 2018-19)

Government has already constructed more than **6 crore** toilets

Plans to construct more **2 crore** toilets

**Source: Economic Times*

INNOVATIONS FROM THE SHOW FLOOR



Launch of Hydron and AquaSpin, a revolutionary global water purification system which treats water with Bio-Signals - **Aquire-Products Unlimited**

Launch of KESSEL - Minilift F lifting station manufactured from polymer



for above ground installation, sewage lifting station with single macerating pump for wastewater with raw sewage by **Nugreen Building Technologies Pvt Ltd**



Huliot STP and innovative polypropylene drainage products which is a green product which is energy efficient, free of ozone depleting material & chemical by **Huliot Pipes & Fittings Pvt Ltd**



A salt-free alternative to water softeners, Vulcan Anti-Scale System is an eco-friendly water treatment system by **Hardware Depo**



Ecological sanitary products and Water Saving Device by **Urimat - Indomax**



Made in India Forged Brass Ball Valve designed for high flow capacity by **Leader Valves**

Market leaders representing key product segments

Sanitary / Bathroom



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ACQUAVIVA

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IPA DEBATE CLUB QUESTION 1 (IPADCQ-1)

What is the best practice for designing the hot water return system in Hotel project for Guest room toilets, from inside the toilet or from the risers in the shaft? Are there any guidelines / most practised systems available with designers and experienced operators?

Is there any criteria to design the reverse return piping system with respect to efficiency of the hot water system?

Editor's Note:

The following answers have been received from various IPA members in response to the above question which was published in IPT January 2019.

ANSWERS TO THE DEBATE CLUB QUESTION 1 (IPADCQ-1)



Response By
Mr Sandeep Goel
(Proion Consultants), New Delhi

Hot water return is required to be provided based on the accepted criteria of the cold water draw out time factor (beyond which hot water will be delivered).

It is required to establish the time factor and in my understanding this is accepted to be 10 to 15 seconds. While the end user may desire to be least (tending zero seconds) time factor however having draw out time less than 10 seconds requires return piping to be coming closest to the fitting which requires more than just extra piping, the aspect of balancing the effective return and engineers more deeper understanding and detailing of the flow balancing.

On practical aspect, the engineer should calculate the hot water pipe length T connection from the main supply and check the hot water volume based on pipe diameter and length up to fitting. Compute the discharge and check the time taken to have cold water draw beyond which hot water will be obtained.

In my working, I would consider to have the return of the main hot water down-take (or riser) which will be more practical to have flow balance. Hot water return from the inside of the bathroom requires better balancing and pressure adjustment. If only in case of resort hotel where the bathroom are distanced from the main supply pipes, it would be required to have the return from the inside of the bathroom however for business and high rise hotel project (where the bathroom and shaft are much adjacent), the most practical and effective approach would be to agree 10-15 sec cold water draw out and plan down-take (or riser) return.



Response by
Mr Sharat V. Rao
(MD, Engineering Creations Public
Health Consultancy Pvt. Ltd.), Mumbai

I am not aware of any guideline or regulation which clearly states that hot water return is to be taken from within the bathroom space or from the hot water risers in shaft.

The criteria should be the quantity of water that will be lost for the end user to get the comfort temperature that he needs. Generally the return pipe for guest toilets in a hotel room is taken with a Tee connection from the riser in shaft.

However if the fixture is distanced away from the supply riser in shaft then the return pipe connection may have to be taken from the inside of the bathroom. The 2013 Green Plumbing Code Supplement – India states that the maximum volume of water contained in a hot water distribution pipe between the water heater (in our case can be read as the hot water riser) and any fixture fitting shall not exceed 1000ml (1 Litre). So if the amount of water exceeds 1 Litre, return piping to be done from within the bathroom.

Reverse Return Piping concept is not mentioned in the ASHRAE Service water heating guidelines. However it is done in most of the hotel projects in our country.



Response By
Mr. Rahul Dhadphale
(Urjal Consultants Pvt Ltd), Pune

I have not come across clear guidelines on this subject.

Return pipeline design is a crucial design as it has direct impact on efficiency of system. Taking the line from the tap inside toilet will definitely save water but will make flow balancing of return piping much more difficult. Normally return line is taken from shaft as water inside pipeline within the toilet is less than 1 litre. But if the routing is such that piping inside toilet is more and holds more water you have to take return line from inside the toilet. We get balancing valves which operates on flow as well as temperature. This is the best solution for balancing but at a cost.

In Reverse Return System we add piping to balance the pressure drop from all ducts so as to balance flow. But we add to length of piping resulting in higher heat loss. The system efficiency is low because of higher piping length. Solution is to install balancing valve so as you don't add any heat loss and get technically designed solution.

Best practice would be minimum possible length of return piping with balancing valves. Whether to take the line from inside the toilet will depend on diameter of pipe and length of piping within toilet. Solution will be site specific. Instead of reverse return line direct return line with balancing valves is better option.

One more important point in Return System is sizing of piping and automation of Return Line Pumping system. A proper detailing has to be done to avoid Heat Loss.



Response By
Mr. R. Kandeepan
(S R Associates), Chennai

- a) In a central heated hot water system, there is no doubt return piping with re-circulation pump is required.
- b) In case of outside toilet return connections, the return can happen from the base of the shaft, with a "U" bend joining the HWS and HWR pipes OR.
- c) It can happen from inside the toilet just before the toilet fixture (a wash basin or a shower mixer) and return back to connect up the HWR riser in the shaft.
- d) A sample terminal HWR fitting is displayed below. This is also used for serial connection piping design.
- e) With correct scientific pipe sizing, the velocity may be around 0.75 to 1 mps.
- f) Hence, for the outside toilet connection (item b), with pipe length of around 5 mts. from shaft to faucets, in a well-balanced (see answer for Q-2) piping system, the time lapse will be around 5 secs.
- g) With inside toilet return connections (item c & d), the time lapse will be 0 secs.
- h) In star hotels 5 secs is considered OK, but 0 secs is always preferred.
- i) Consider a very cold area, like winter Shimla, European locations with 0°C to 5°C ambient, touching cold water itself may cause sickness. Hence, anything more than 0 secs will not be tolerated and "in-toilet" connections are preferred.

Connect to faucet



HW Supply / HW Return

Criteria for Design of Reverse Return Piping System:

- a) In a central heated hot water system, there will be multiple hot water circuits.
- b) One circuit will comprise the HW calorifier, a length of HWS header piping, HWS branch piping, HWR branch piping, a length of HWR header piping, HW recirculation pump and HWR header piping back to calorifier.
- a) While designing or sizing the HWS & HWR piping system, care should be taken so that the pressure drop in each of the circuit is the SAME.
- b) This can be achieved in 2-ways. i) by adopting Reverse Return piping system OR ii) by installing balancing valve in the return pipe @ location just before the connection in to the HWR main header running back to the HW recirculation pump.

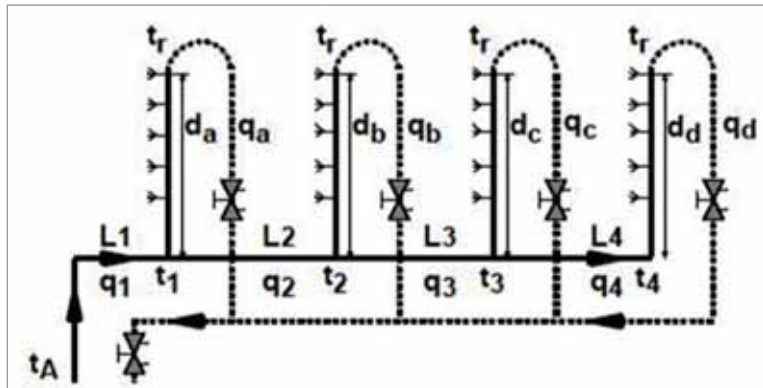
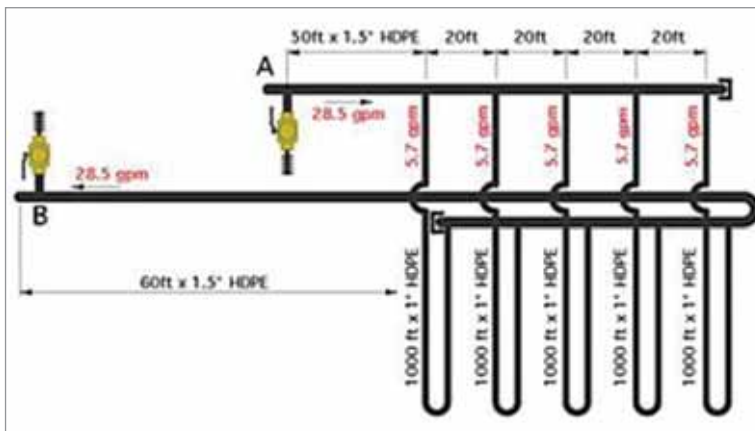
Reverse Return System:

- c) The buzzword for RR piping design (or the criteria) is "FIRST IN - LAST OUT" OR "EQUAL TRAVEL DISTANCE OF PIPING FOR ALL CIRCUITS".

- d) A sample WS with RR piping is displayed below. Each circuit (A to B), when traced will have equal travel distance AND if the entire piping is designed for same specific ΔP (m/m of pipe length) then equal circuit length means equal circuit pressure drop and hence equal flow. All circuits will have equal HW recirculation and will have the same HWS temperature.

Balancing Valve Return System:

- g) Here a balancing valve is installed in the return pipe @ location just before the connection in to the HWR main header running back to the HW recirculation pump. A sample circuit is shown below.



- h) Here, with the circulation pump “ON”, the balancing valves are adjusted, set and locked for “EQUAL” flow through each valve (circuit).

Conclusion

- Notwithstanding, where the return connection is done, either inside or outside toilets, the performance of the central hot water system solely depends on the efficacy of the circulation system adopted.
- If some of the circuits starve recirculation, then the hot water draw-down time will be ending up in multiple minutes, which will be embarrassing to the designer.

- Hence, care should be taken whilst designing the HWS, HWR & HWRR (or balancing valves) piping systems.
- Better still; a new product is available in the US, called as “Circuit Solver”. If installed it automatically takes care of feeding all the circuits and maintain uniform HW temperature in the HWS branches.

Details can be had at <http://www.thermomegatech.com/product/circuit-solver>



There is no such standard practice or guidelines for designing the hot water return in a hotel project especially for guest room toilets. It may all depend upon planning of the toilets, category of the hotels & brief guidelines as per budget by the owners / promoters. Designer can consider the length of hot water supply pipe line in inside the toilet to the farthest point of use & thus the volume of water wasted for getting the hot water at required temperature. As per general practice, the hot water in the farthest point should be available in 10-15 seconds.

As per my observation, presently mostly the hot water return piping inside the toilets is avoided as it has its own problems & only the hot water main down take is provided in the shaft.

In general practice, the hot water return pipeline is laid parallel to the hot water supply line as nearest possible in the same shaft and in the same order of sizing of hot water supply line with intermediate connections on floors with regulating valves. Some experts recommend reducing the hot water line size by one next diameter.

Response By

Mr. M.K. Gupta

(MKG Consultants), New Delhi

Editor's Note:

The above responses are under review by IPA's Technical Committee. Concluding remarks by Technical Committee, IPA will be published in the April issue of IPT.



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‘On IPA and Future Plans of Indore Chapter’

Editor’s Note: IPA is in the process of expanding its footprint across India by inducting new chapters in its fold. The last two chapters that have been installed are Indore and Vadodra Chapters. IPA asked these new chapters to give some feedback on how they view IPA as an organization.

1. In brief, what is your educational and professional background and how will it help you to support IPA in its activities?

I am a graduate in Mechanical Engineering (BE) from Bhopal University, Post Graduate in Marketing Management (MBA) from IMS (Institute of Management Studies), DAVV University, Indore and a an ISHRAE Certified Clean Room Professional.

As we are aware that all construction linked activity is based on scientific analysis and implementation. Plumbing too is one of the most critical lifelines of any building and plumbing design and installation brings with it unique challenges. As a professional qualified technocrat and member of IPA, I am committed to my chapter to spread the awareness on latest technologies and systems to uplift the industry standards.

2. What do you think is the aim of IPA as an organization?

IPA is an industry specific association which aims to guide professionals to adopt correct and ethical business practices. IPA provides an unparalleled networking platform to all. IPA intends to create awareness amongst the professionals involved on latest technologies, especially related to plumbing, and share best practices through its publications and by conducting various seminars, expositions, technical talks etc.

3. Have you been part of any other professional organizations as a committee member?

I have been actively involved in ISHRAE, ASHRAE, IGBC, FSAI & ISLE and have served ISHRAE in various capacities including National Secretary in 2016-17.



Nishant Gupta
Vice Chairman
IPA Indore Chapter

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IPA NEWS

PUNE CHAPTER

IPA Pune Chapter, along with knowledge partner College of Engineering Pune (CoEP), conducted the 13th session of 'Study Forum' - an event to share knowledge with IPA Members as well as with students and professionals in the plumbing fraternity.

The event was organized on 23rd January 2019 at CoEP on "Architectural Concrete for Water."

The event started with the National Anthem followed by Ganesh Vandana, and Saraswati Poojan. The welcome address was given by Prof. Dr. Nitin M Mohite, CoEP.

The speaker for the event was Er. Pradeep Ghumare has work experience for over 30 years in various German companies. He shared the potential of using Architectural Concrete and explained its benefits as compared to current practices. Architectural concrete refers to a concrete that provides an aesthetic as well as a decorative finish and has inherent structural and functional capabilities. The presentation revealed many unknown facts of the best usability of concrete like reduced burden on the environmental. The use of concrete is known to most of us but using it to achieve architectural wonders was a new facet. Er. Ghumare shared with the forum how around the world increasing number of designers, architects, planners and government bodies opting for architectural concrete. He also shared the importance of six measures to achieve the architectural aspects for concrete. They are:

- 1) Adding integral color during concrete mixing / by shake-on-color hardener on freshly cast concrete / and by staining the set concrete
- 2) Creating textures on freshly cast concrete by exposing the aggregates to various required depths / by using deactivators
- 3) Creating designs on concrete during casting by using PU / PVC / plastic form-liners

- 4) Using colored aggregates; natural / artificial and photo-luminescent into the concrete mix
- 5) Using niche formwork / mold release agent to enhance the concrete surface quality.

Some or all of these measures are used for using architectural concrete for structures meant for water usage.

- 6) Using concrete-protection coating which is combination of hydrophobic, oleo-phobic, breathable permeate inside the concrete pores, which are in micro to nano range. These enhance the architectural concrete surface against water.

Many creative and unique products / solutions of architectural concrete for water were shared:

- 1) Concrete floor tiles instead of regular tiles used in bathroom, kitchen, garden, in water bodies for indoor / outdoor applications
- 2) Cast in-situ concrete for outdoor kitchen tops which is unique and merges with the ambience, tailored to meet the architectural specification & lifestyle
- 3) Cast in-situ and precast concrete worktops and countertops which are custom-designed
- 4) Precast concrete storm water drains with different colors and shades
- 5) Precast concrete shower tray which are easy to use and are used for contemporary bathrooms
- 6) Precast concrete wash basins for standard or custom-designed with colors and having proper water seal
- 7) Precast concrete gratings with special designs to suit the landscape.
- 8) Stamped concrete patios, pathways for drain channel to enhance beauty of the structure
- 9) Bathroom walls with stamped concrete
- 10) Toilet floors with stained concrete

- 11) Precast concrete bath tubs with special sizes, shapes, colors to dominate the bathroom look and also having proper water seal
- 12) Kitchen with concrete design walls and top
- 13) Precast concrete shower bases with standard design and ease to install
- 14) Precast concrete water features for outdoor / indoor beautification

- 15) Concrete embankments for water bodies with protection from algae formation
- 16) Concrete façades for buildings, structures with waterfall with good aesthetics, light-weight, heavy-duty, unique, durable and protection from moss/ mold formation

The session left the attendees mesmerized for two hours and gave a new approach to the use of concrete for water applications.



Lighting the Lamp



IPA Pune Chapter Chairman Mr. Pravin Bora felicitated the speaker

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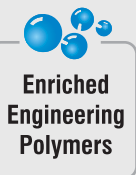
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Sharat V Rao, Chairman – IPAMC at the deliberating from podium

IPA Mumbai Chapter had their first 'Technical Workshop' on February 16th. Departing from the traditional evening seminars that ended with cocktails and dinner, this event started post lunch and ended with high tea at about 5.30 pm.

Various product presentations were made by manufacturers during IPPL 2019. It was noticed during IPPL that as the manufacturers got only 20 minutes to speak, the design aspects of their products or installation could not be covered. This aspect was also highlighted by the participants representing developers during Mumbai IPPL 2018. In this particular format the manufacturer gets almost 2 hours to make an in-depth presentation of their products. The advantage with a smaller gathering is also that it encourages the audience to ask a lot of technical questions.

This first 'Technical Workshop' was sponsored by ACO Systems and Solutions Pvt. Ltd. IPA MC had labelled the event as a 'workshop' as a lot of audience participation was essential to the spirit of the event. The feedback on this first such event has been very encouraging and Mumbai Chapter plans to have a few more in the coming months.

Audience at the Workshop





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IPA NEWS

DELHI CHAPTER Special General Meeting

A meeting was arranged on 22nd February 2019 at Holiday Club, New Delhi to discuss the future activities by IPADC and also to conduct elections for the four vacant posts of Executive Committee of IPADC.

The proceedings started with the National Anthem. Tributes were also offered in the memory of Architect Archana Gupta.



IPADC Chairman, Mr M.K. Gupta Welcoming the Members

IPA Delhi Chapter Chairman Mr. M.K. Gupta initiated the meeting with the welcome address and extended his whole hearted thanks to all members for their contributions and that he looked forward to similar co-operation in future. In his address Mr. M.K. Gupta updated all present about the progress made by Delhi Chapter and its involvement in various activities.



Returning Officer Mr P.V. Bhima Rao conducting the Oath Ceremony for Newly Elected Members

The Returning Officer, Mr P.V. Bhima Rao, announced that only four applications against the four vacant posts of Executive Committee of IPADC had been received and hence all the four applicants were elected unopposed. The four elected members were:

- Mr A.K. Pandey
- Mr Vishal Kakkar
- Mr Ramesh Kumar Rohilla
- Mr Manoj Dhar

Mr M K Gupta briefed the members about the activities that were undertaken in the last tenure and initiated a discussion for the creation of a future road map for IPADC. Various initiatives were created related to growth of the chapter by inducting new members, organizing WPD event, launch of "I Save Water Program", organizing IPPL for 2019 with 40 teams, contribution of articles to IPT, etc.



Meeting in Progress



Mr Nikhil Jain giving the Presentation

Mr Nikhil Jain gave a presentation for taking up corporate motivation series. It was decided by all present that Mr Nikhil Jain must come up with a concrete proposal and potential sponsors.

The meeting concluded and was followed by tea and refreshments.



IPADC Team along with the Newly Elected Members



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Industry Feedback

IPT Do you think that the pump market is overcrowded in terms of number of pump manufacturers?

Ebara Indian market for pumps is a growing market. However because of compromising on quality, the market looks like being overcrowded. Considering a fair comparison in terms of technicality, efficiency and longer working life, there is a substantial market for pumps.

IPT Are there any product innovations or features that you have recently introduced in your range of pumps?

Ebara We have introduced our vertical multistage pumps with SHURRICANE™ impellers which offers better efficiency and supports in using standard IEC mounting motors without any thrust bearing. We have introduced our end suction pumps GS and split case pumps CB with higher efficiency hydraulics, which reduces power consumption.

The latest is the booster set developed in India which can be remotely monitored and controlled .

IPT There is no shortage of experienced plumbing engineers in India. How can the manufacturing community help in encouraging these professionals to publish case studies of various problems faced by them during installation in our magazine - Indian Plumbing Today?

Ebara Companies like Ebara can help clarify any technical queries on pumping systems that potential contributors of case studies to IPT may have.

IPT Do you feel that plumbing engineers working at various sites completely understand how to maintain various pumps supplied by you?

Ebara Plumbing engineers are well versed with mechanical part and in regards to domestic systems. However, they need to be trained for systems with automation - especially at hotels and hospital sites.

IPT Corporates are spending large funds as CSR. Does your organisation spend its CSR funds on any plumbing related activity in India?

Ebara So far we have not really funded any CSR activity related to plumbing

IPT You are aware of IPA's activities. Are there more ways that IPA can support the Indian plumbing industry?

Ebara As observed, IPA has been putting its best efforts in several activities. I would like to suggest to introduce information on basics of plumbing in schools. This will help the students to look into plumbing stream as a different activity.

IPT Can IPA, according to you, support and help manufacturers of plumbing materials with activities that have not been done so far by IPA?

Ebara I think IPA, as an association, has been doing almost all activities that are required to support manufacturers.

IPT Do you think IPA should promote intensive technical training (3-4 hours) on products from selected manufacturers for technically inclined IPA members?

Ebara It is a very good idea as these training activities will really help the members and also the manufacturers would benefit by getting inputs from end-users/installers.

IPT Do you think that the majority of sales and marketing people in the plumbing industry are aware of basics of pressure and pressure drop in pipelines?

Ebara This is lacking in the industry, not only among sales and marketing, even engineers and contractors at times fail to understand. A lot of approximation is done and this leads to over-sizing of the pumps and results in having issues at the time of installation.

IPT What is your feedback on IPPL 2018 in which you were involved as a Sponsor? Do you have any suggestions for improvement in IPPL 2019?

Ebara It is a very well thought out and planned event by the experts in the field.



Santosh Kurbet

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30th March 2019

LAUNCH OF IPA SURAT Chapter

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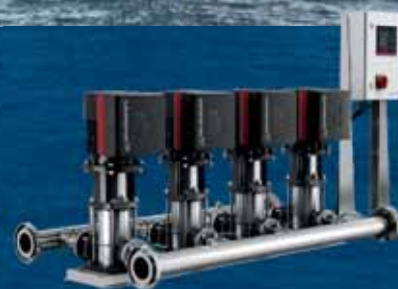
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