



SOCIETY OF
PLASTICS ENGINEERS

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Plastic Pipes Conference 2015

2nd and 3rd December, 2015
in Mumbai

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Rajiv Sanghavi
President,
Society of Plastics
Engineers India.

It is a great honour and privilege for me to assume the role of The President of SOCIETY OF PLASTICS ENGINEERS, INDIA.

The Society of Plastics Engineers plays a critical role in addressing the technical problems associated with the plastic industry. Though I myself do not come from a technical background, being part of SPE, we are committed to provide technical solutions and respond to the needs of our Members.

Those who have steered the society along this dynamic road have done so, ensuring the continuity of our society over the years. Many people have contributed to this outcome, far too many people, to mention their names. However I must recognise the leadership of our immediate past President, Mr. Devnani for his dedication and vision over the years. Not only as a leader but as a true friend he extended his term at the request of the Board for one more year, to allow me to complete my pending assignments. I would also like to recognise the contribution of other Board Members who retired during the current term.

The Society of Plastics Engineers is a Global Organisation with several activities including Technical Resources Online, Technical Publications, Conferences, Seminars, and Webinars taking place all over the world. When we look at the number of members as compared to other Plastic Associations in India, we have about 800 members and the same is on the increase. The India Section is significantly small considering the number of members we have, but our Global Membership exceeds 14,000 in numbers. We will continue to attract more members and we invite all of you to join us in our future activities.

India is focusing on increasing its manufacturing activities. The European Union is slowly and steadily shifting towards a service Industry, so also developed countries like USA, Australia, New Zealand and Japan are changing their Industrial Structure. This provides us with Academic Challenges and the need to expand the scope of technical information for the rapidly changing Industrialisation. We at SPE hope to meet this challenge.

I look forward to working with you and receiving your contribution. Thank you for your support and look forward to seeing you all on 2nd Dec. for the Plastic Pipe Conference.



Surinder S.
Ahluwalia
-Editor

We are back again after a sabbatical of a few years, and it is great to be back and capturing your imagination (plastics related of course). I say capturing your imagination because we at SPE India want to do that literally. We want your participation at all our events, just as much as we look forward to your suggestions to make SPE India a powerhouse of information for all our members. A lot of the information is already there on the SPE website, but I am referring to active participation, in an inter-active mode, between the SPE India Committee and yourselves. How can this be done?

1. By participating in as many events as possible.
2. Offering suggestions to the Programs Chair for future programs (ssabarindia@hotmail.com).
3. Offering suggestions for improvement of the events attended.
4. Volunteering your services to the committee whenever requested.
5. Last, but not the least, promoting the benefits of being a member of SPE India among friends and colleagues in the area of your influence.

In this first issue of the year, 2015-16, we will be concentrating on the upcoming SPE India's Plastic Pipes Conference 2015, scheduled to be held at The Leela in Mumbai on 2nd and 3rd December, 2015. The Conference Chairman, Dr. Shreekant Diwan and Co-Chairman, Mr. Haresh Pillay have given brief write-ups on the conference related subjects. Please do give them a 'read' to have a better understanding of the subjects being covered.

Plastic pipes are as important to emerging markets as they are to the fully developed economies. The former need to really expand their use, while the latter need to replace existing metal and RCC pipes with their plastic equivalents. In view of this, worldwide demand for plastic pipes is projected to grow 6.5% a year through 2019 to 20.6 billion metres, as per a new report. China and the US are showing strong construction activity that will boost the demand of plastic pipes in building and non-building applications.

Global PVC and HDPE pipe demand is projected to reach staggering figures of 30.3 million mt and 17.5 million mt, by 2019. According to a recent article by Mr. Saurabh Dhanorkar, MD of Finolex Industries, the current size of PVC pipes market in India is 1.8 million tonnes per year, with double digit growth projected over the coming years. PVC pipes form a major share of the plastic pipes demand in India. Pipes made from polyolefins is also on a high growth path.

An emerging economy like India will not take a back seat in these developments, and it is imperative that it cashes in on all the latest progress made in machineries and pipe-laying techniques by absorbing and implementing the same. SPE India's Plastic Pipe Conference 2015, will be one such forum where infrastructure stake holders along with entrepreneurs, technicians and quality professionals, can hear as well as interact with the global experts to the maximum. Pipe manufacturers, machinery suppliers, polymer resin suppliers, additives & masterbatches producers and testing equipment specialists will all be active participants in this one-of-a-kind global conference. To top it all, a large contingent from the end use sectors will be sharing their experiences and asking for more features in the pipe and fittings being offered by the industry.

“The Plastic Pipe Conference that will be held in December this year will prove to be a milestone event in our journey to impart technical information.”

Indian Plastic Pipe Industry - Dr. Shreekant Diwan

Plastic pipe is a well-established product in the country since the first PVC pipe installation in 1964 in Chhatarpur, Uttar Pradesh. Plastic pipe sector has grown substantially in the last 5 decades and stands to the size of ~ 2 MMT today.

Plastic pipes are being accepted in the country due to long term performance, ease of installation and awareness about life cycle cost concept.

Within the total Plastic consumption in the country, PVC shares ~ 85% while Polyethylene contributes about 13% and CPVC/PP-R/Composite pipes hold ~2% share.

Today plastic pipes are used in Water and Wastewater management, Agricultural activities, Plumbing applications as well as gas and telecom applications. There are different types of plastic pipes developed for these end use applications over the last 50 years. These are listed as:

- 1) PVC/PE pipes for pressurized water supply
- 2) PVC/PE pipes for Sewerage transport
- 3) PVC Borewell Casing pipes
- 4) PVC Column Pipes for Water suction
- 5) PE Sprinkler pipes for Agriculture
- 6) PE Pipes for Gas Transport
- 7) PVC pipes for Telecom/Electrical Cable Ducting application
- 8) PE Pre-Lubricated Ducts (PLB) for Telecom ducting
- 9) PVC/PP-R/CPVC pipes for Plumbing Applications
- 10) PVC Braided Hose pipes
- 11) PE-AL-PE Composites Pipes
- 12) PE Tubing for Drip Irrigation
- 13) PVC Garden Hose Pipes

Plastic pipe industry is also adopting new technologies / advancements like O-PVC pipes, structured wall pipe viz. Foamcore PVC pipes, DWC PE pipes etc. and achieving success towards establishing these products.



Nationwide infrastructural development, urbanization, government's focus on real estate and irrigation to drive agricultural growth have been identified as major factors facilitating the growth of the plastic pipes industry in the country.

The Government of India is launching new schemes in the irrigation and real estate sector for significant investments. It is evident that in the 10th and 11th Five Year Plans focus was on drinking water. Now it is time for developing sanitation systems across the country because only 33% of country's population has access to sanitation.

Announcements from Govt. like development of smart cities, Swachha Bharat and digitalization of cities, will also create demand for plastic products in general and pipes in particular.

Considering the huge requirements of plastic pipes with special properties from these end use segments, plastic pipe industry in India needs to gear up for adopting new technologies/products like weldable/fusible PVC pipes, reinforced thermoplastic pipes etc which are useful in trenchless installations. Also plastic pipes for relining of old damaged pipes will have good potential in the coming years as majority piping systems (installed during 'the British Era') in the country are at the end of their service life. Plastic pipe industry can win the race by joining hands with traditional material pipe industry to develop products of mutual benefits like Large Diameter PE lined RCC pipes etc.

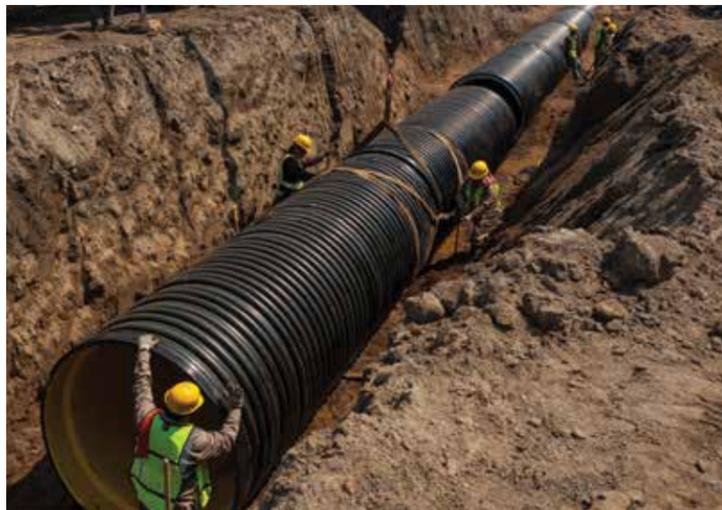


Plastic Pipes: Number one choice for various applications today - Haresh Pillay

Since their introduction over five decades ago, Plastic Pipes have become the material of choice for nearly all applications ranging from Water supply, Sewerage and Drainage, Agriculture, Plumbing and Sanitary, Communication and Ducting, Industrial, Irrigation Systems, Offshore and even Oil and Gas. With improvement in the production and processing techniques, use and its applications over the years, it has been proved beyond doubt that they are the most superior material for a wide range of installations across the above segments due to its inherent properties, superb corrosion and chemical resistance, greater logistical and installation cost advantage, stronger, tighter, leak proof and self-restraining joints etc.

The other added advantages are alternative installation methods (no-dig for example) which can save considerable time and money in many applications, particularly rehabilitation of pipelines etc due to its light weight and easier on site handling. For example, PE is about one eighth the density of steel, so it does not require use of heavy lifting equipment for jointing and installation. Above all, most of the plastic pipes have better sustainability credentials with the environment in mind as the plastic pipes require less energy in production than alternative material.

Even at the end of their useful life, plastic pipes can be easily recycled. All these combined advantages, coupled with the potential long service life (of over 50 years) leads to further cost advantages in the long term. A study of the whole life cycle cost, in which all the costs associated with a pipeline throughout its lifecycle, from material cost to installation and maintenance, even on the most conservative estimates, has found that installed costs get reduced by as much as 70% and the whole life cost by over 45%.



AN OBVIOUS CHOICE ??

Today, with the rapid pace of urbanization, by the year 2050 over 70% of the population would have moved to urban locations and there will be 600 million more Indians who will demand their share of water and food. By then, the per capita availability of water is projected to fall to dangerous levels, from the present 1545 cubic meters. Even now, about 220 million Indians have access to less than the minimum level of 1000 cubic meters, indicating severe stress.

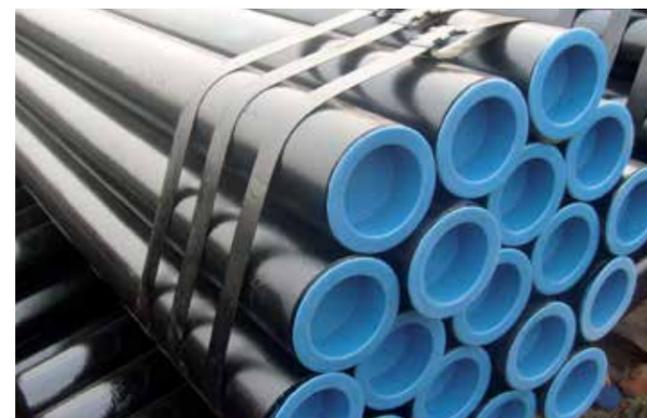
Various studies from different missions set up by the government have shown that infrastructure creation should have direct impact on the basic and real needs of the people. Primary amongst that is to provide clean, safe drinking water and sanitation to the citizens. Providing these basic services to households and building amenities in cities and generally improving the infrastructure facilities which will improve the quality of life for all, is a national priority today and is being implemented with the required zeal. An estimate of funds required over 20 years at 2010 prices, was made by a high power committee set up by the government, which estimated that over Rs 39.20 Lakh Crores was required for creation of urban infrastructure, which includes Rs 17.30 Lakh Crores for urban roads and over Rs 8.00 Lakh Crores for services such as water supply, sewerage, solid waste management and storm water drains. Besides this, the requirement for O&M was separately estimated to be Rs 19.90 Lakh Crores.

To facilitate this, AMRUT (Atal Mission for Rejuvenation and Urban Transformation), has been launched in which five hundred cities will be taken up initially and the focus will be on water supply, sewerage facilities, storm water drains etc apart from providing other amenities for transport and recreation. In addition to this, The Smart City Mission proposes support to the extent of Rs 48,000 crores for 100 cities on an average of Rs 100 crores per city per year to which an equal amount will be matched by the state governments and nearly Rs One Lakh Crore will be available for smart cities development. CAN PLASTIC PIPES BE LEFT BEHIND IN THIS??

A WORD OF CAUTION THOUGH!!

The plastic pipe industry is growing @ 8% or more which is well above the GDP growth rate of 5 or 6% (unlike the projections). It has the potential to grow at double that rate and given the need of the hour and the impetus and resources being made available by the government, it certainly holds promise not only for consolidation and expansion in the industry but also to have an all-round improvement in the quality and reliability aspect of both the product offering and associated services.

With this background in mind, SPE India has organized a two day international conference, Plastic Pipes 2015 on December 2nd/3rd at Mumbai which will bring together all the stakeholders in the value chain of the industry, covering various topics from manufacturing to installation of pipelines and welcomes all the learned speakers and delegates to the conference.



Pipes Conference Launch Function

Neither the threat of the unpredictable nature of Mumbai's monsoon finale, nor the final days of Ganesh Visarjan dampened the spirits of all those who attended this function. Over eighty enthusiastic SPE India members and guests from the plastic industry in Mumbai, attended the Launch Function for the Plastic Pipe Conference 2015 held at Hotel Sea Princess, Juhu on 25th September, 2015. The function had a dual purpose in that, alongside the Launch of the Conference on Plastic Pipes to be held later this year, on 2nd and 3rd December, the occasion also welcomed Rajiv Sanghavi as SPE India's new President for the year 2015/2016, and felicitated the outgoing President of SPE India Roop Devnani by Vijay Boolani.

period at the request of Rajiv Sanghavi, the then President-Elect. Vijay Boolani, the immediate past President of the global SPE organization gave the members a download of the latest happenings at the US headquarters, and their efforts to promote SPE more vigorously on a global basis.

Dr. Shreekant Diwan and Haresh Pillay, Chairman and Co-chairman respectively of the upcoming Plastic Pipes Conference 2015, enlightened all present with an overview of this Conference. The importance of plastic pipes was highlighted and a spirited appeal was made to all present to attend the same. The benefits of publicizing about the event via word of mouth, to colleagues and friends were also highlighted.



Ramesh Parasuraman, Hon'y. Secretary of SPE India, got the evening going by welcoming all present and introduced the Incoming President, Rajiv Sanghavi, who very graciously thanked all concerned for having confidence in his abilities to lead the organization into its 75th year. This was followed by Roop Devnani's thanks to the entire committee for their cooperation and unstinted support to carry the organization, for not only during his original term, but also in the extended



From left to right- Mr. V. G. Nambiar, Mr. Roop P. Devnani, Mr. Surinder S. Ahluwalia, Mr. Ramesh Parasuraman, Mr. Rajiv Sanghavi, Dr. Shreekant Diwan, Mr. Prem G. Manghani, Mr. Jayen Modi, Mr. Haresh R. Pillay

SPE Member Benefits

When becoming a member of SPE, you become part of the world's most expanded society for plastics professionals.

With people connections in 84 countries around the world and a contact database of over 15000 members, one of the main benefits of SPE membership is to be a part of this extensive network.

However, benefits of the SPE membership go far beyond networking, namely:

- Access to 25000 + technical papers and presentations on innovations in polymer and plastic technology (uploading ongoing)
- Receive a hard + soft copy of Plastics Engineering magazine, the world's most widespread technical magazine in the plastics industry
- Discounts on SPE's 40+ conferences around the world
- Participation at knowledge sharing activities, such as workshops, webinars, conferences, etc... at preferential pricing
- Discounts on SPE's scientific journals
- Being part of The Chain, the world's largest e-network for plastics professionals, powered by SPE

- Connect with 15000 + members around the globe
- and much more...

KNOWLEDGE & NETWORKING

SPE Technical Member Groups

SPE Technical Groups allow you to personalize your SPE membership by targeting your particular speciality and/or your areas of interest.

Your membership includes two free member groups—A technical area of interest (division) or local geographic section. Additional member groups will have a \$10 fee per group.

Want to track information and develop contacts in new and emerging areas of Plastics? Your SPE membership includes free membership in as many Special Interest Groups as you would like to join.

SPE Online Membership Directory

SPE members are a tight-knit and dedicated community ready to assist fellow members. Use the Online Membership Directory to contact your fellow members—person to person—to get the answers you need today, from real world experts—your fellow SPE members.

Communities

LinkedIn, Facebook, Twitter and The Chain!

TRAINING AND EDUCATION

Events

Experience first-hand the latest plastics technology, find solutions and learn best practices. Share your own expertise and network with your professional peers by attending SPE ANTEC's and SPE's Topical Conferences. Enjoy 40+ annual technical/business conferences at an SPE reduced rate!

If limited time or limited travel budgets are keeping you from accessing the technical and business education and training, you need to keep yourself and your team on top of the game. Turn to SPE's webinars—and get the best in plastics education delivered right at your office. SPE's webinars are generally only an hour in length and members receive a reduced rate.

INDUSTRY INFORMATION AND SOLUTIONS

Technical Library and SPE Journals

Members have free access to SPE's extensive databases and technical information. The SPE technical library and journal database will give you knowledge, industry information and solutions.

Plastics Engineering Magazine

Your membership includes a free subscription to Plastics Engineering magazine. Plastics Engineering puts the global plastics industry in

your hands with each issue being packed with news, technical briefs and trends that affect your projects, your company and your career.

SPE Plastics Research Online

SPE Plastics Research Online (SPEPRO) RSS feeds has the latest in plastics research!

Consultants Corner

Consultants Corner is a great resource for members who are looking for services and for service providers who want to maximize their exposure in the plastics industry.

Career Building

Whether you're just getting started, taking the next step up the career ladder or transitioning between one job or location, SPE members have a host of career development resources and opportunities located right on your fingertips.





Tech Talk - Tech Talk is where plastics professionals come together from around the world to discuss the latest technical issues and innovations within the plastics marketplace. Put the knowledge and expertise of thousands of plastics professionals to work for you. Ask a question—provide an answer—or simply expand your knowledge base in this professionally moderated forum!

SPE Café - SPE Café Because not everything we do is technical! Engage in the broad range of topics under discussion in the SPE Café. Pose questions on topics outside of the 'technical' box, provide answers or comments from your experiences, or just simply share your opinions. Have fun with it!

Career Central - Career Central Whether you are in the midst of a job search or planning the next steps in your career, Career Central is the place to go to identify job opportunities with the industry's best employers. Browse our job listings and resume database, and get busy developing your career!

Campus Connection - As an SPE Student Member, Campus Connection offers you and other student members an exclusive online community to ask questions or provide answers to hot topics of interest for today's engineering students. This Place is professionally moderated by a group of respected plastics professionals from academia and industry who are ready and willing to give you guidance on a path to career success.

Stay tuned as we continue to add and update "Places" within *The Chain!*

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The European Thermoforming Division invites you to the 10th European Thermoforming Conference to be held in Sitges (Barcelona) from 10th to 11th March 2016 at the Melia Hotel.

Join us in Sitges, Barcelona where we will be celebrating 20 years of the ETD supporting your industry, you will be most welcome.

WHAT MAKES ETD CONFERENCE DIFFERENT ?

The main objective of ETD is to create a platform that encourages industry participants to share and transfer technical knowledge and expertise. Technical speakers and presentations are carefully selected to provide the maximum value.

Workshops and Technical Sessions: Our programme includes technical presentations by recognized industry experts, featuring new developments in our industry.

Sponsors and Exhibitors: These are the only opportunities for direct marketing of your products or services to the only Thermoforming Industry specific Conference in Europe. We advise you not to miss out this unique opportunity!

Parts Competition: The essential points of the Parts Competition are the design-orientated application of materials and the successful combination of technical innovation and design quality. The participating Parts will be on display at our conference and the winners will be announced during lunch.

Questions?
Contact: Yetty Pauwels
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www.e-t-d.org

SPE

Plastic Waste Management – 2016

Adding life at the end of life

Committee

Plastic, the wonderful material which has become an integral part of our life because it:

- Puts very less pressure on natural resources. ~5% of fossil fuel is consumed for plastics production.
- Plays important role in conservation of resources like wood, water and electricity.
- Protects environment by replacing requirements of traditional products like wood, metal, glass.
- Reduces emissions of Green House Gases (GHG) due to less energy consumption during total life cycle.

Yet there is a big hue and cry being created regarding its 'waste management'. Plastics are classified in different ways; viz. based on their origin as natural and synthetic, or based on their thermal behaviour as thermoplastic and thermosetting or based their characteristics as commodity and engineering. If we take into account their end use applications, we can even classify them as Long life and short life. Products including pipes, doors & windows, flooring & wall covering, electric & electronic appliances, roofing sheets & membranes, furniture, automotive parts normally have life ranging from 10 years to more than 100 years. Whereas packaging materials, carry bags, some of the medical application products, household items have a short life span. Thus major are issuearises out of the disposal of such products at the end of their service life.

But according to Oxford dictionary, 'Waste' is a material, substance, or by-product eliminated or discarded as no longer useful or required after the completion of a process. As per the Basel Convention, 'Wastes' are substances or objects, which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law. The European Union defines waste as "an object the holder discards, intends to discard or is required to discard."

Indian philosophy talks about death as soul changing body the way we throw old clothes and wear new ones. French Nobleman, Father of Modern Chemistry, Antoine Lavoisier has practically mentioned the same thing in scientific terms. His Law of conservation of mass implies that mass can neither be created nor destroyed, although it may be rearranged in space, or the entities associated with it may be changed in form.

Thus waste management is nothing but adding life at end of life.

SPE India feels proud in announcing first of its kind conference in India covering the major aspects of Plastic waste management, titled "Plastic Waste Management – Adding Life at The End of Life!"

Coming Soon in 2016



Mr. Rajiv Sanghavi
President



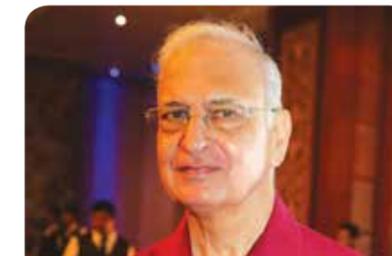
Mr. Vijay Boolani
Vice President



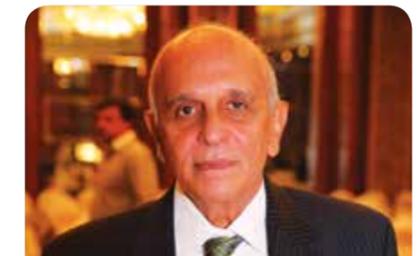
Mr. Ramesh Parasuraman
Hon. Secretary



Mr. Haresh R. Pillay
Hon. Treasurer



Mr. Prem G. Manghani
International Councilor



Mr. Surinder S. Ahluwalia
Programme Chair



Mr. Roop P. Devnani
Imm. Past President



Mr. B.L. Boolani
Committee Member



Mr. Jayen Modi
Committee Member



Mr. Achal Thakkar
Committee Member



Mr. V. G. Nambiar
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Prof. D. D. Kale
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