

## Executive Director Message

Good afternoon! Issues of import include the upcoming ASCE show in Baltimore that is usually very well attended by key players of the engineering community. The Alliance will be there conducting butt fusions and discussing the virtues for HDPE pipe, fittings and equipment. The huge news is that the long awaited C906-15 national standard from AWWA is now in the books. On September 3rd, the document will be available on AWWA's website. Congratulations to all who worked on this important milestone for the HDPE piping industry. Thanks for reading. Stay Leak Free and I hope to see you on the road.

Peter Dyke

## C906-15 An Expert View

I had a chance to catch up with HDPE expert, Bill Adams last week. Bill chaired the AWWA Subcommittee on AWWA C906-15. He retired recently after 40 years in PE pipe manufacturing and technical service, but remains active in AWWA.

**Peter Dyke:** Welcome Bill. We are excited to learn that AWWA will release AWWA C906-15 on September 3rd. We understand that C906-15 is an update to the AWWA's HDPE Waterworks Pipe standard that incorporates larger HDPE sizes and higher durability HDPE materials. What does this development mean for the municipal water industry?

**Bill:** This comprehensive update to AWWA's HDPE waterworks standard is significant because municipal water agencies can now employ an improved HDPE pipe with the knowledge that AWWA's expert water professionals fully vetted the product. It is gratifying to finally gain AWWA and ANSI standard approval after an exceptionally thorough and comprehensive process.

The pipeline business is very competitive and there are those that did not want to see this revision approved because improved HDPE materials make HDPE a VERY price competitive pipe product. The good news is that AWWA's lengthy vetting and approval process confirmed that high-performance HDPE pipe is fully supported by technical research and over two decades in water service.

## HDPE Innovation Corner - Plasson USA Adjustable Elbows

This month's entry for innovation belongs to Plasson USA. Their adjustable allows electrofusion to HDPE pipes at any angle up to 12° per side. Easy to install, this elbow solves issues like:

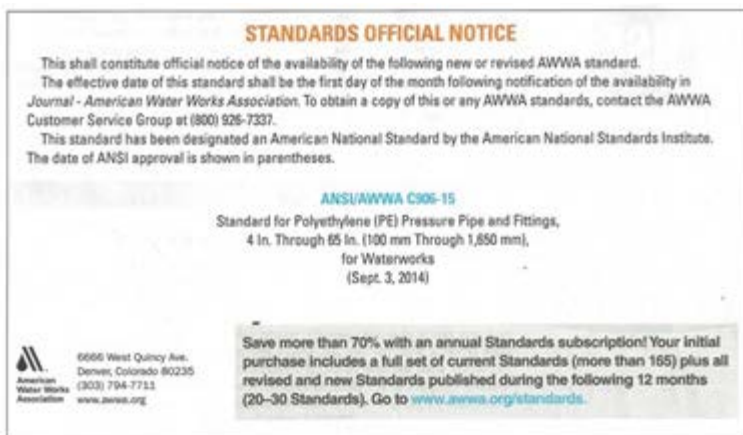
- Misaligned pipes
- Connections at an undefined angle
- Connection of buried pipes where only a short section is exposed

Prior to fusion, the ball joints are fully adjustable within the  $\pm 12^\circ$  and after fusion, the joint is a full ElectroFusion welded connection. For more information on this innovation visit [PlassonUSA.com](http://PlassonUSA.com).



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**Peter:** What does the updated standard mean for a water utility?

**Bill:** Thousands of US municipalities have used HDPE since the sixties, but now water agencies can specify AWWA standard HDPE in sizes through 65-inch that are made from the most durable HDPE materials available. They can specify tough HDPE pipe and know that all the water they pump through it will make it to the meter without leakage losses that they see with incumbent materials. Given water shortages in many parts of the country, it should be comforting to know that agencies are using a pipe system that does not leak, pit, corrode or wreak havoc at 2 in the morning.



With respect to key C906-15 updates, DIPS sizes were increased to 54-inch, IPS sizes increased to 65-inch, and High-performance PE4710 materials were added.

PE4710 is highly evolved and is much tougher and more durable than PE3408. For the same diameter and pressure class, PE4710 increases flow capacity compared to PE3408. These changes expand HDPE water piping options with tougher, more durable and efficient PE4710 piping products. The bottom line for the utility is greater system efficiency at lower cost.

**Peter:** Expanding C906 to include the available larger sizes makes sense, but why is PE4710 a better HDPE material?

**Bill:** PE4710 is a highly engineered, fourth-generation material that has greatly improved failure resistance. PE4710 has higher pressure class ratings with no reduction in toughness or pressure surge

will automatically be entered into our iPad giveaway! We are also tweeting regularly about our activities @pepipealliance and you can also find interesting industry stories there. We have a [home on LinkedIn](#), where we have begun to share knowledge and encourage HDPE-related conversation. So quit reading and go [like us on Facebook](#), We will wait! **You just might win the iPad!**



## Engineer's Desk - Surge Design

Surge Design with HDPE pipe is calculated much differently than other pipe products. Quite simply HDPE pipe handles reoccurring surge at 1.5x pressure class and occasional surge at 2x pressure class. So for a 14" IPS DR11 HDPE (pressure class 200 psi) handles reoccurring (predictable and planned for) surge to 300 psi and occasional (unplanned) surge to 400 psi. The surge capability of HDPE pipe is included in the design of that class of pipe. So DR 11 pipe is built to withstand surge events well in excess of its working pressure classification. Stay tuned to this section for other distinguishing design features of HDPE pipe in upcoming editions.

## Upcoming Roadshows

August 27 - East Windsor, NJ

capacity, greater flow capacity, and can offer a century or more of no-leak service. Earlier generation HDPE materials are stout products with important features, but PE4710 is far superior because of its resistance to failure, toughness and longevity. You can bend a Class 150 12" pipe around a 66' diameter cul-de-sac, tap it 6 times for lateral connections and get home for dinner.

Fourth generation HDPE materials were first classified 20 years ago and as we moved into the new century, new higher-performance requirements for North American PE4710 were established. In virtually every performance category, PE4710 is significantly superior to PE3408. C906-15 recognizes International service for over two decades, and a decade of North American PE4710 service. This product is thoroughly tested and has an unsurpassed service history.

AWWA C906-15 PE4710 vs. AWWA C906-07 PE3408		
Pressure Class psi	Pressure Capacity PC + Surge, psi	Flow Increase PE4710 DIPS vs. PE3408 IPS
100	100 + 100	17.5%
150	150 + 150	21.6%
200	200 + 200	26.5%
250	250 + 250	31.3%
300	300 + 300	37.6%

**Peter:** How about if we continue this discussion in the next edition?

**Bill:** Sure, but one last thing, utilities can now employ cost-efficient AWWA Standard HDPE piping that can provide non-leaking water service for more than a century. Now that is something to pay attention to. Thanks for asking me to contribute.

## ASCE Pipelines 2015

**HDPE Pipe**  
Responsible Infrastructure



**Booth #513**

August 24th 9:30 a.m. – 3:00 p.m.  
August 25th 7:00 a.m. – 4:00 p.m.

Stop by our booth at ASCE Pipelines Baltimore  
and view Fusion Demos



October 6 - Knoxville, TN  
October 8 - Nashville, TN

## Quick Links

[Who We Are](#)  
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[Our Website](#)

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