

Trenchless Rehabilitation Contractors:

Expanding Service Offerings in Response to Stricter Regulations & Environmental Concerns

We read about it every day. State and local governing bodies across the United States are leaving “no stone unturned” when it comes to finding more sustainable solutions at every level. Everywhere you look there are signs — electric cars, wind power, “green” buildings, products made from recycled materials — the list goes on.



Over the last few years, regulators have also started looking for ways to “green up” the repair of underground utilities. New regulations are being implemented throughout the country, requiring cities and towns to upgrade their infrastructure, reduce runoff and eliminate leaks and infiltration that will impact waterways, water and wastewater treatment facilities. Add to that the Clean Water Act and the Clean Air Act, it is no wonder why officials in our cities and towns have begun to scrutinize the long-term effects of their asset management and capital improvement projects.

The good news is local municipal government is incentivized to use eco-friendly products and services. City and county municipalities are motivated to improve their infrastructure with current, cost-efficient and environmentally responsible solutions. However, the question remains: Is the trenchless rehabilitation contracting community in a position to provide solutions to meet these new criteria?

This is exactly why Inland Pipe Rehabilitation (IPR), a nationally based trenchless contractor, began looking at every project bid. “This is no longer simply a matter of being the low-cost solutions provider,” states Mike Vellano, IPR vice president of sales and marketing. “We are now looking at a much bigger picture that not only includes the repair of the affected structure, but the environmental impact of that repair on the surrounding community, its eco-system, and the long-term performance.”

For IPR that means always researching and investing in new trenchless technologies that complement its other services.

CIPP Technology Evolving

One method getting more attention is cured-in-place pipe (CIPP), primarily because of the styrene-based resins traditionally used in this process. For the past several years, CIPP has been used more than any other trenchless method for the rehabilitation of sewer mains. However as new laws are passed and more regulations are imposed, contractors must now be prepared to provide an even “greener” trenchless CIPP solution. In June 2011, the U.S. Department of Health and Human Services released its 12th Report on Carcinogens, where it listed styrene as “reasonably anticipated to be a human carcinogen.” This comes on top of some regions of the United States, including the Southeast, Northwest and West coast, where they have already limited or banning styrene-based processes. It is no secret that most CIPP systems use styrenated resins, and there are indeed some legitimate concerns among installation contractors as to where this issue is headed long term. The forward-thinking contractor should have alternative solutions; especially when much of the infrastructure is close to waterways, watersheds and highly urbanized areas.

“I want to be perfectly clear,” says Vellano, “We still fully support the traditional resins used in CIPP systems. In fact most of our work utilizes traditional polyester resins. And, the technical envelope of each resin system includes the advantages or disadvantages for certain applications, which we always take into consideration when recommending a solution. Clearly the jury is still out on this issue, but we have a responsibility not only to ourselves, but to our customers to provide the most cost-effective and environmentally friendly solution available. There are a lot of contractors out there, including us, that have been installing CIPP for a long time. That is why we believe it is paramount that we offer both a traditional CIPP solution and an advanced CIPP solution to address the environmentally sensitive areas of the country, and the emerging drinking water system rehab market as well.”

Need For Potable Water Pipe Rehabilitation on the Horizon

Looking ahead, trenchless contractors need offer a safe, pressure-rated CIPP system as well. There are thousands of miles of drinking water pipe in need of rehabilitation now. Again, regulatory requirements necessarily rules out styrene-based resins. For this reason alone, contractors need to look at a non-styrene solution. This will be the next major growth area for our industry, and the best equipped, best trained contractors offering the most proven solutions, will reap the benefits.

Demand Fuels Advancements in Trenchless Technology

Not every technology is right for trenchless rehabilitation. The environment we work in is difficult and what looks good in a lab does not always work for our customers. The United States has historically been behind when it comes to new technology in our space. “We have spent the last several years evaluating technologies from around the world to find the next generation of environmentally friendly products to offer as part of our portfolio of services to our customers,” added Joe Cutillo, IPR president

and CEO. “By adding epoxy-based and geopolymer-based products to our current offerings, we now have a comprehensive ‘green’ suite of products that can satisfy almost any trenchless pipe rehab need.”

Keeping Installation Teams Well-Trained Is Critical



With any new installation and repair technology, the most critical element to its success is making sure the crew is properly trained. “With our advanced CIPP system, it’s not like the old days when there was a lot of guesswork determining the proper amount of resin saturation, steam temperature and cure time. This is a highly engineered, computer monitored installation process conducted by experienced and well-trained field technicians. It has, in effect, become a science to us, and we’re proud of that,” Cutillo said.

The system IPR offers is a completely self contained, turn-key process that includes a mobile wet out unit and utilizes epoxy resins. “It is an eco-friendly resin system that speeds up the installation process and reduces the carbon footprint at the same time,” stated Vellano. “Now, when we meet with customers in need of environmentally friendly trenchless rehabilitation solutions, we’re able to address several environmental concerns with one product.

Always Offer A Best Solutions Approach to Infrastructure Rehab

Gone are the days of the “one product fits all” contractor. The successful trenchless contractors are expanding their technology toolbox and skill set. They are now offering the best trenchless solution to fix the problem. So when the repair is not regulation driven, but cost or accessibility driven, the well-equipped contractor can provide options to meet a full array of budget and performance criteria. In addition to their CIPP systems, IPR offers pipe bursting, spiral-wound pipe, advanced geopolymer systems and slip lining. “With our economy, we have a responsibility to our customers to provide the best solution at the best value,” Vellano concluded.