

# PIPELINE

PIPING SYSTEMS INC.

COMMERCIAL/INDUSTRIAL/INSTITUTIONAL MECHANICAL CONTRACTORS

WINTER 2018

## Local Manufacturer Lowers Its Fire Risk

by Pauline Lally

**E**ach month, PSI “exercises” one of our customer’s fire safety system’s PIVs (post indicator valves)

The polymer sealant and adhesive manufacturing company’s mechanic in charge of maintenance has a mandate to keep the valves working properly and in compliance.

“We have to do this because of our insurance,” says the mechanic. His company’s commercial insurance carrier requires a trusted third party to come in each month to turn the PIVs and authenticate that its sprinkler system is running smoothly so the carrier keeps its risk of fire damage minimized.

PSI began working with this Massachusetts manufacturer decades ago when the company was sold. The Fortune 500 corporation that bought the plant had expansion plans and wanted an ongoing relationship with a piping company to handle its sprinklers on its fire safety



system. PSI was known in the industry for its work with sprinklers and fire protection systems and for creative ways of designing extra hazard fire protection systems. See related story below: *Case Study: How To Engineer A Solution For An Extra Hazard Fire Protection System.*

But like most companies, the manufacturer had additional piping and plumbing needs. Each time, they turned to PSI. “If we’re running a new glue line, they run the pipe for the new glue line. They’ve also helped me with our boilers and they replaced our steam heater.”

The two companies have been working together for about as long as their maintenance mechanic has been with the company, which is 23 years. He is happy with the relationship that has evolved over the last two plus decades.

“Everything goes according to plan. They’re very good,” he says. “They come when you call. If there’s an emergency, they’re right here. They always help me if I have any questions. They’ll answer the questions and help me figure out how to do something. They’re a good company, and I’ve never had any problems with them.”

And, that’s exactly why PSI is here.

## Case Study: How To Engineer A Solution For An Extra Hazard Fire Protection System

**N**orth Atlantic Corp. (NAC) is a distributor and manufacturer of windows, doors, kitchens, stairs, millwork and commercial openings. Their manufacturing facility is located in Somerset, Massachusetts. Piping Systems, Inc. has had the pleasure of serving NAC as a client since October 2004.

Just recently, we were contracted to design and install an extra hazard fire protection system for a new addition onto the main building to be used manufacturing and storage. The addition consists of two levels, each measuring 20,000 square feet.

National Fire Protection Association (NFPA) promulgates guidelines for specific hazards depending on the combustibility of goods being stored in the area. Because the upper floor usage was considered higher than normal hazard, substantial water flow and pressure were required to meet the requirements. When higher pressure and water supply is necessary, sometimes a fire pump is warranted. Since fire pumps are sophisticated pieces of equipment that can be expensive and require additional maintenance, the goal is to eliminate the need for this equipment.

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# The Bills In Your Wallet

You don't have to be a millionaire to know the value of a dollar. Here are some fun facts about paper money from the U.S. Bureau of Engraving and Printing website:

- The first \$1 bill was issued by the government in 1862 with a picture of Treasury Secretary Salmon P. Chase. George Washington's portrait first appeared on the \$1 note in 1869.
- Dollar bills account for approximately 45% of all U.S. currency production.
- The lifespan of a \$1 Reserve note is about 21 months. Other bills have different life expectancies.
- The first \$2 bill was issued in 1862 and featured a picture of Alexander Hamilton, the first Secretary of the Treasury.
- The first \$100 bills were issued in 1862, with a picture of the American bald eagle. Benjamin Franklin's portrait first appeared on the Series 1914 Federal Reserve Note.
- The lifespan of the average \$100 note is 89 months.



# Target These Areas For Better Employee Retention

Employee retention begins with providing fair compensation and benefits, but it doesn't end there by any means. You can improve employee loyalty by concentrating on these four areas:

- **Performance objectives.** Employees want to do a good job, and they want to know how they need to improve. Don't keep them in the dark. Let them know how they're doing, how their contributions affect the organization, and how their efforts can lead to advancement and career opportunities.
- **Communication.** Talk to your people as much as possible. Listen to their ideas and opinions. Conduct surveys to solicit their feedback—and act on what they tell you. Remember that the goal of communication isn't to listen passively but to let employees know you value their contributions.
- **Loyalty.** Show your loyalty by standing up for their interests. Be sure to provide the resources they need to do their jobs. Share information, even if it's bad news, to show you trust their judgment and professionalism.
- **Competitive advantage.** Everyone wants to work for a winner. The better your organization is at achieving its goals and being a better corporate citizen, the better your employees will feel about working for you.

## Strange Questions From Job Interviews

Job interviews can be intimidating under the best of circumstances, but some interview questions leave candidates confused. Here are some as reported on the *Knowable* website:

- "What emojis best describe you?"
- "If you were a fruit, what kind would you be and why?"
- "Would you be willing to skip class to cover shifts?"
- "What is the relationship between your parents and what do they work with?"
- "How many basketballs could you fit in this room?"
- "While pretending that we [the interview committee] are three-year-olds, please perform a song and dance."
- "Are you going to be too weird to work with?"

# Instant Messaging Takes Over The Workplace

Instant messaging software such as Skype, Slack, and Facebook are becoming increasingly popular in the workplace, and they're changing the way employees and customers traditionally connect with each other. A survey by *ReportLinker* uncovered these interesting facts about how we communicate with each other at work:

- Only 19% of employees prefer face-to-face communication when discussing something at work; 50% prefer using email.
- The most used software is Skype (29%), followed by Facebook Messenger (22%), Lync (19%), and Slack (5%).
- Among heavy users, 45% say they're more productive with instant messaging.
- Efficiency (22%) and team collaboration (14%) are the biggest drivers of instant messaging adoption.
- Fourteen percent of workers say they like instant messaging because it helps them reduce the volume of emails, 12% like its flexibility, and 10% say they use it because they find the tools easy to use.
- The main drawback is the pressure to respond immediately, cited by 24% of respondents. But, that's one of the main reasons customers like messaging.

SPEED BUMP

Dave Coverly





# Safeguard Your Company's Info

Every organization has its trade secrets or proprietary information. Protecting sensitive information is easy to overlook, though. Take these precautions to protect your organization's secrets:

- Be discreet about talking about your organization's information in public places like restaurants or airplanes.
- Always know who might be listening in, whether you're on the phone or in a teleconference.
- Protect identification badges, office keys, and passwords as securely as your own personal property.
- Use passwords on your computer to prohibit unauthorized users from accessing your data. Change your passwords frequently.
- Be careful when sending confidential or personal information through email.

## Questions Change Perceptions

One of the world's most famous paintings is "The Night Watch," by Rembrandt. When curators hung it in Amsterdam's Rijksmuseum, they conducted an experiment: They asked museum visitors to write down questions they had about the painting. The questions they received were varied: How much did the painting cost? Had it ever been forged? Are there any mistakes in the painting? Why did Rembrandt choose this subject to paint? Who were the people in the painting?

The curators then posted the questions, and the answers, in a room next to the gallery where the painting hung. Visitors had to walk through that room to view the painting. Curators found, to their surprise, that the average length of time visitors spent looking at the painting jumped from about six minutes to 30 minutes.

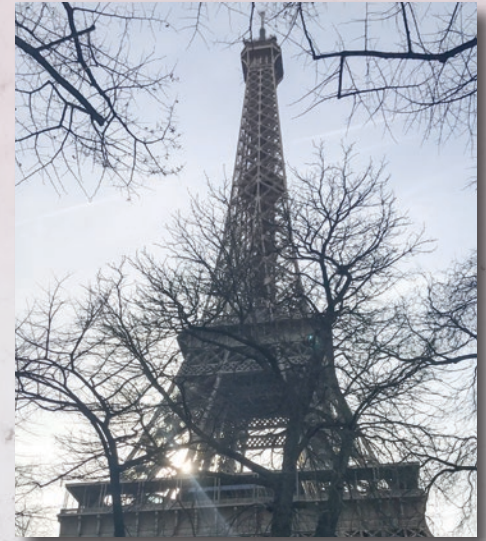
Art lovers walked back and forth, reading questions and examining the painting. They told museum officials that reading the questions encouraged them to look closer and longer and to remember more details.



## A New Trend: Traveling In Search Of Good Food

Traveling to see the wonders of the world is always popular, but these days more and more people are heading out to try exotic foods. A survey by the American Automobile Association found that 22 million Americans are planning to take a food-based vacation in the next 12 months, and 75% of Americans say that food and drink are an important part of their travel experiences. Four out of five travelers say they've visited wineries and distilleries, along with taking hands-on cooking classes and eating with local families.

Younger travelers are leading the trend: 88% of millennials say they've participated in food-related activities while traveling.



*Can you guess how many rivets were used in the construction of the Eiffel Tower?*

## Construction Trivia

1) How many rivets were used in the construction of the Eiffel Tower?

- a) 25 million
- b) 2.5 million
- c) 250 million
- d) 250,000

2) Which U.S. state boasts the highest bridge?

- a) Texas
- b) Pennsylvania
- c) Colorado
- d) Oregon

3) When was the first fully-enclosed shopping mall built?

- a) 1925
- b) 1937
- c) 1964
- d) 1956

4) What is the smallest skyscraper in the world?

- a) The Torch
- b) U.S. Bank Tower
- c) Pearl River Tower
- d) Newby-McMahon Building

5) Bull floats and darbies are used for what type of construction?

- a) Pre-engineered steel buildings
- b) Concrete finishing
- c) Covered bridge construction
- d) Building wooden trusses

**Answers:** 1) b; 2) c; 3) d; 4) d (It stands at only 40 feet); 5) b



# Engineer A Solution... continued from page 1

Further complicating matters, the existing systems are presently protected by a "dry" system and the owner wished to maintain that strategy for the new area.

**Several options were discussed.** One was to install a new fire pump serving the both the new and existing systems. The problem with that option was that the facility has been expanded several times in the past and presently has several incoming water mains. To install a fire pump to serve only the new addition would be costly as well as impractical. Normally, a fire pump is designed to serve the entire facility, and in this case, it would be extremely difficult as there is no common point of connection to the incoming water supplies. After study, this idea was dropped.

**Other scenarios were presented.** Once we obtained the water flow test data, we calculated scenarios for several types of systems. It was apparent that a dry system would not meet code requirements without installing a fire pump. We discussed this with our client and it was agreed to install a wet system using the available city water supply with oversized piping to reduce the frictional losses.

Since the addition was two stories, it was essential that the lower level be engineered to support the upper level storage weight. This meant that the steel support joists had to be placed close together; closer than typical construction calls for. Our client did not want the sprinkler piping to be below the supports because they wanted to keep as much head room as possible. Standard lengths of pipe usually come in 20 foot lengths. In order to be able to fit the pipe between the joists, it was our intention to cut the pipes into 10' lengths allowing us to be able to slip them into the webbing space between the joists. However, on inspection of the situation, our project manager, Greg Brewer, recognized a potential problem. There were major support beams supporting the joists. That meant that each piece of piping would have to elbow down and then up leaving that fitting and section of pipe below the steel.

**Greg comes up with an idea.** What if we could cut 2-inch



holes into the exterior foundation wall and support beams allowing the pipes to be slipped into the joist spacing and thereby eliminate approximately 150 couplings and 64 elbows? This idea would not only keep the project on schedule by saving installation time, it would also eliminate 150 points of potential future leaks.

Although cutting holes in a foundation is not the optimum situation, NAC realized that it was the best alternative. Permission was granted by the structural engineer and NAC. The holes were marked and core drilled. A good sealing agent was used around the holes. There were no identifiable marks on the foundation.

Due to the project time schedule and delays in construction that were caused by factors beyond our control, we were asked to work several nights so our customer could receive the building occupancy in a timely fashion. Naturally we agreed and NAC received their occupancy on time.

*Considering a facility expansion or upgrade to your fire protection system? We can help engineer a solution that will save you money and help keep your important assets safe.*



We're doing our part!



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