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American Concrete Pipe Association, Irving, Texas 75063-2595, USA

The American Concrete Pipe Association reinforces a culture of safety in concrete pipe plants

The concrete pipe industry takes its commitment to safe production so seriously that it established a national award to recognize plants that excel in safety, along with the companies that develop innovative approaches to improving worker safety. In addition to the award, the American Concrete Pipe Association (ACPA) introduced a course designed for workers, foremen, job supervisors and anyone involved in general industry operations. OSHA recommends Outreach Training Program courses as an orientation to occupational safety and health workers covered by OSHA 29 CFR 1910. ACPA members have incorporated such safety courses into their own health and safety programs at facilities throughout the USA.

■ Matt Childs, P.E., President,
American Concrete Pipe Association ■

ACPA members produce over 90 percent of concrete pipe tonnage in the USA while spending \$millions annually on upgrading facilities and equipment, advancing knowledge about concrete pipe, and education programs focused on all aspects of pipe production. ACPA hosts an annual Pipe School and Trade Show for staff of member firms and their clients. The Pipe School and Quality School component run concurrently each winter. Ongoing education continues after Pipe School through webinars that focus on information updates and overviews of plant and product technology. Managers and production employees must demonstrate a culture of health and safety along with mechanical, electrical and computer aptitudes to maintain and operate modern pipe plants. Continuous training and re-training is a very important element of the concrete pipe industry in the United States of America.

Safety and Environment Committee

The American Concrete Pipe Association established a Safety and Environment Committee (SEC) to ensure a safe workplace in all ACPA member facilities with guidelines and policies that impose reduced, minimal, or no harm to the environment. The SEC in turn established a Mentoring Program for member companies to enhance their safety and environmental programs.

A core group of "Mentors" is available to visit the facility of a member company who request an assessment of their safety, health

and environment program, and suggestions on how to improve. Any ACPA company wishing to take advantage of this program can request a list of mentoring companies by contacting the ACPA. The SEC contributes to the culture of safety in the ACPA member plants and is expected to have a positive impact on declining incident rates and lost time due to incidents.

Chairman's Safety Award

ACPA's Chairman's Safety Award recognizes plants, individuals, and/or companies that have implemented successful safety initiatives resulting in a safer and more productive workplace. Winners are chosen in the categories, "Company-Wide," "Equipment-Related," and "Individual Location." A trophy is awarded to the winner of each category during a ceremony at the annual Pipe School, and later in the year at the Annual Convention. An overall winner is chosen from the three category winners, and is invited to display the large Chairman's Safety Award Cup at their plant for one year until the Award winner is crowned in the following year.

A selection of safety innovations from 2014 Chairman' Safety Award Winner

The Safety Committee at Cretex noticed an employee not wearing his hearing protection because he had removed plugs at break and forgot to put them back when he returned to his station. To eliminate this barrier to personal protective equipment use, the Committee introduced a five gallon, high visibility bucket and placed ear plugs, safety glasses, anti-fog wipes, clear face shield, box of rubber nitrile gloves, and one



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The 2014 winner of the Chairman's Safety Award was Cretex Concrete Products, Inc. for describing several innovations for improving health and safety in the workplace. Cretex is now a part of Forterra Building Products.

set of welding sleeves in each bucket. The buckets are placed in several locations at each work station and scheduled for inspection and replacement of content.

A challenge existed of keeping people off the top of box section forms when pouring concrete, exposing them to a potential fall. One of the problems was being able to



A five gallon, high visibility bucket with several personal protective equipment eliminates the barrier to use it

place concrete in the form without spilling. Cretex developed a radio-controlled pour bucket with a flexible pouring boot attached to the clam gate on the bottom of the pour bucket. This restricted the concrete flow to an 8-inch hole and there is no need for employees to climb on top of the form.



A radio-controlled pour bucket with flexible pouring boot attached to the clam gate on the bottom of the pour bucket

2008-2012 Means of All ACPA Participating Plants Performance (U.S. and Canada)						
	2008	2009	2010	2011	2012	2013
Total Incidence Rates	5.5	5.8	7.0	6.1	4.1	4.0
Lost-Time Incidence Rates	0.9	0.7	1.4	1.1	0.6	0.6

The Total Incidence Rate rose every year from 2008 to 2010 but steadily dropped starting in 2011. The Lost-Time Incident Rate has followed the same pattern as the Total Incidence Rates.

duced by the ACPA to support the safety programs of its member companies appear to be effective in reducing incident rates and lost time in the workplace. ■

Comparison of Total Incidence Rates Between Concrete Pipe Industry and Similar Industries					
Industry (NAICS Code)	2008	2009	2010	2011	2012
Concrete Block and Brick (327331)	6.6	6.1	6.4	6.0	6.2
Ready-Mixed Concrete (32732)	5.2	5.5	5.0	5.8	4.8
Aluminum Production and Processing (33131)	6.1	5.0	4.6	4.3	5.1
Iron and Steel Pipe and Tubing (33121)	6.8	9.5	8.0	7.5	6.6
Plastic Pipe (326122)	5.7	3.7	3.9	4.0	5.1
Concrete Pipe, Brick and Block (32733)	7.3	6.0	6.4	6.4	6.2
Concrete Pipe (327332)	8.9	5.8	5.1	7.3	6.1
ACPA Participating Plants	5.5	5.8	7.0	6.1	4.1

Comparison of Total Incidence Rates

Comparison of Lost-Time Incidence Rates Between Concrete Pipe Industry and Similar Industries					
Industry (NAICS Code)	2008	2009	2010	2011	2012
Concrete Block and Brick (327331)	3.9	3.3	3.8	2.2	4.0
Ready-Mixed Concrete (32732)	3.5	3.4	3.4	3.6	2.9
Aluminum Production and Processing (33131)	3.4	2.7	2.6	2.4	3.1
Iron and Steel Pipe and Tubing (33121)	3.8	5.2	3.9	4.2	3.6
Plastic Pipe (326122)	3.2	1.8	2.0	2.2	2.6
Concrete Pipe, Brick and Block (32733)	4.2	3.3	3.6	3.2	3.9
Concrete Pipe (327332)	4.8	3.4	3.2	5.0	3.6
ACPA Participating Plants	0.9	0.7	1.4	1.1	0.6

Comparison of Lost-Time Incidence Rates

Injury Statistics and Trends of the Precast Concrete Pipe Industry – 2013

In March 2014, the American Concrete Pipe Association published the results of a study that compared the safety records of the concrete pipe industry to safety records of those similar to the concrete pipe industry. It was expected that the comparison would show the relative effectiveness of the ACPA's safety programs and concrete pipe industry's effort to improve safety, and allow the concrete pipe industry to benchmark those efforts.

Incidence rates for the precast pipe industry remained relatively constant in 2013 for

ACPA Members, resulting in the lowest rates seen between 2008 and 2012. ACPA members have had the lowest lost time incident (LTI) rates, consistently, with approximately three times lower rates than the concrete pipe industry as a whole. That gap widened in 2012.

The comparison of the concrete pipe industry to similar industries shows that the safety programs utilized by the ACPA and its members have made it a safer industry to work in than similar concrete related industries. The concrete pipe industry continues to attract people interested in a place to work that demonstrates a culture of safety and good health. The safety programs intro-

FURTHER INFORMATION



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