



American Concrete Pumping Association

FAQ's

ASME B30.27 Jobsite Responsibilities for Concrete Material Placing Systems

1. What is the ASME?

ASME (founded as the American Society of Mechanical Engineers) promotes the art, science and practice of multidisciplinary engineering and allied sciences around the globe.

Founded in 1880 and headquartered in New York, New York, ASME has over 130,000 members in 150 countries. There are 200 sections and 32 technical divisions which have developed 600 technical standards improving the safety and efficiency of boilers, elevators, cranes, nuclear energy, pipelines and many other areas, including concrete material placing systems. ASME standards are used in over 100 countries, and its members provide engineering and technical expertise to policy makers in Congress, the White House Office of Science and Technology policy, and key federal agencies.

2. Why was the B30 standard created?

As an overall mission statement, safety codes and standards are intended to enhance public safety. Specifically, the B30 standard is intended to prevent or minimize injury to workers, and otherwise provide for the protection of life, limb and property by prescribing safety requirements, and to provide direction to manufacturers, owners, employers, users and others concerned with or responsible for its application, and guide governments and other regulatory bodies in the development, promulgation and enforcement of appropriate safety directives.

3. How did the standard concerning concrete pumps come to be?

The Concrete Pump Manufacturers Association (CPMA) was formed in 1995 with the mission of developing an American National Standard (ANSI) for concrete pumping safety that would cover the manufacture of pumps, the maintenance and testing of pumps, and the operation of pumps. The original members worked on an industry standard for almost five years. It was agreed that the resultant draft standard, CPMA-27-2000, would be obeyed by the member companies.

In September, 1999, the CPMA brought their draft standard to the ASME B30 committee, which writes the safety codes and standards for all lifting devices in the U.S., including tower cranes, mobile cranes, derricks, trolley cranes, helicopter lifts, junkyard magnet-cranes, shipyard cranes, etc. It was thought by the members of the B30 committee that concrete pumps have enough of the same types of hazards as cranes that they may be willing to take on the new standard.

However, the B30 committee was worried that they didn't have any expertise on the committee with regards to the pumps themselves, so they agreed in 1999 to take on only the booms, outriggers, structural components and system components until such time that the

committee felt the necessary expertise was involved. The newly accepted elements of pumping machines were given the next number in the line of crane standards, which was B30.27.

The newly-formed B30.27 committee was chaired by a procurement officer for the U.S. Army. Three pump manufacturers, a systems manufacturer, an insurance safety consultant, a union representative and a member of the Army Corp of Engineers rounded out the original membership. Concrete pumpers were invited to join. Two pumpers attended meetings and gave input to the standard without joining.

The first edition was finished in 2004, and published in 2005. Because it didn't contain any information about the pumps or the pumping processes, CPMA 27-2000 continued to co-exist to cover the pumping side of the machines.

In 2005, with an initial standard under its belt, the B30.27 committee made the decision to incorporate all of the pumping elements and procedures into the ASME standard. The B30 committee, knowing the level of expertise now on board, had no objection.

In late 2008, ASME approved the new version of the standard. ANSI approved it in early 2009, and it was published in May 2009. CPMA 27-2000 was withdrawn at that time.

Since 2006, ASME B30.5 (mobile cranes) had been working on adding responsibilities to their standard. The idea was that operators were being blamed for all mishaps, but had control over very few of the circumstances. They finally agreed to the language in 2010, and B30.5-2011 was issued in January 2012.

B30.5 has by far the largest subcommittee; sometimes there are 30 people in its meetings. When it passes something, it's highly likely that it will be applied to the other volumes. As soon as B30.5's language passed, the chair of the B30 main committee asked the subcommittee chairs to make a report as to whether it was appropriate for their committees to add an adapted version of the responsibilities to their standards. B30.27 agreed that an adaptation of the B30.5 language was appropriate.

The B30.27 chair held webinars open to the public, to explain what was going to be done, and to solicit participation on an ad hoc committee having only one job: to adapt the responsibilities language for use in B30.27.

When the committee was formed, work commenced. Meetings were held in several cities around the U.S. Pieces of the adaptation were submitted for voting by B30 committee members. Negative votes resulted in changed language or explanations as to why the wording was correct. In September 2013, all negative ballots and all comments were addressed and the standard went for public review. It was passed in late 2013, approved by ANSI in early 2014, and published (called the date of issuance) on March 26, 2014.

4. Who was involved in the process of developing the standard?

The personnel involved in the subcommittee work differed from the personnel involved in the ad hoc committee to add responsibilities; however, personnel from the concrete pumping and insurance industries, the government, and labor unions were involved in the development of the volume, with another 45 people from many different industries scrutinizing, commenting, and eventually approving it.

5. Where and how will the standard be used?

Pump owners and operators, construction entities utilizing concrete placement equipment, as well as ready mix suppliers should be aware of the contents of the standard. In this interim between publication and effective date, operational and training changes can and should be made to come into compliance.

It is known that governmental regulators (OSHA) and legal entities (attorneys) will use the standard as a benchmark against which the players on a concrete pour will be judged.

6. When does the standard take effect?

March 26, 2015 will mark the one-year anniversary of the date of issuance, and is therefore the date the standard goes into effect.

7. How will it get promoted to contractors and ready mix companies?

A variety of methods are being employed. Press releases have gone out to the ASCC, NRMCA, TCA, CFA and the AGC. Seminars are being sponsored by concrete pumping companies who invite their customers to learn about the new regulations. Associations are giving presentations about the standard to their members at national conferences. Webinars will be held, and the ACPA has volunteered to be a clearinghouse for the information and seminars becoming available.

8. What happens if I or my contractor/ready mix company doesn't comply?

ASME standards are voluntary standards. There is no force of law behind them. The rigorous acceptance process and ANSI certification makes them well respected within the industries they serve, and they are considered consensus standards. If an entity chooses to ignore the standard, there is no consequence unless and until there is an incident. At that time, OSHA may use the standard as a basis for levying fines, and plaintiff attorneys will use the standard as the benchmark of proper procedure, explaining to a jury how the standard said it should have been done—versus how company “X” did it.

9. What role do ACPA training materials and ACPA Certified Operators play in the standard?

No specific entity's products or services are ever endorsed in an American National Standard. The standard is accepted in many other countries and may users in those countries are not aware of the ACPA. For English and Spanish speaking countries, however, the ACPA is a prime resource in the process; they offer much of the training that is specified in the standard. In addition, the ACPA certification process makes it easy for a pumping company to document compliance and demonstrate that training has been accomplished.

10. How is the standard modified? How can I get an interpretation of the meaning of a clause in the standard?

B30.27 is republished on a five-year cycle. The 2009 version of B30.27 became active in June 2010 and will be in effect until March 26, 2015. The 2014 version will remain in effect until one year after the next revision is issued.

There are openings on the subcommittee for anyone interested in contributing to the next revision. Each subcommittee member must fit into an interest category, and there are limits to

how many people from one interest category can be on the subcommittee (to prevent any one interest group from “stacking the deck”).

Questions or requests for interpretation regarding the ASME B30.27 standard or any other B30 standard should be addressed to:

Secretary of the B30 Committee
ASME, Three Park Avenue
New York, NY 10016-5990

11. Where can I obtain a copy of the standard?

You can obtain a copy of the standard at the link shown below. Because of the severe restrictions placed on the .pdf file (one computer, no printing) the committee recommends the paper version, which at least can be passed from person to person for reading.

<https://www.asme.org/products/codes-standards/b3027-2014-material-placement-systems>

Image: ACPA_B30,27FAQs_Sun_Catchers_0009.tif