

**From:** "Don Burns" <dburns@calspec.org>  
**To:** <cgekas@energy.state.ca.us>  
**CC:** <mshirakh@energy.state.ca.us>  
**Date:** 1/3/2008 4:54 PM  
**Subject:** Pre-45-Day Language - 2008 Building Energy Efficiency Standards

<b>DOCKET</b> 07-BSTD-1	
<b>DATE</b>	JAN 03 2008
<b>RECD.</b>	JAN 04 2008

The purpose of this letter is to bring to light an issue within the update to Title 24 from the Davis Energy Group.

In the swimming pool section they recommend the use of sweep elbows in the plumbing of the circulation system in addition to the use of eyeball fittings at the discharge of the water into the pool. The use of the eyeball counteracts the goal of the sweep elbows because of the back-pressure they add to the system, so the sweep elbows are an unnecessary and wasted cost.

Many swimming pools require the use of 30 to 50 of these elbows, raising the cost of the project with no measurable energy savings. Our industry is facing a diminishing market due to the high cost of construction, so to just keep this requirement in is **irresponsible**. We need to know when to stop if there is no appreciable gain.

Another item that was not addressed in the study is the practice of heat bending pipe instead of installing fittings. This method is not approved in either the Uniform plumbing Code or the APSP Builders Manual. Many contractors heat bend pipe to save money, elimination of the practice would alone save more energy than sweep elbows.

When a pipe is heated and bent the pipe deforms and changes the inside diameter and weakens the pipe. This not only hydraulically changes the characteristics of the flow but when it fails in the future the entire pipe must be replaced because it cannot be repaired. This probably will cause the future owner to remove the decking to repair something that should never have been allowed in the first place.

This code update should not needlessly raise costs to our consumers but it **should** outlaw a practice that is inefficient and irresponsible.

One other issue that we should like to call your attention to relates to proposed pipe requirements called for in the draft. Strainer baskets are integral parts of all **swimming** pool pumps. The pre-rotation problems that will be caused by the draft regulation's required placement of four-inch diameter pipe in front of swimming pool pumps **have** not been taken into account. While such an arrangement may work well in very large (i.e. agricultural pumps), with small pool pumps, the flow changes created by the over-large pipe will result in a significant loss of efficiency and increase energy requirement; unnecessarily.

We appreciate having this opportunity to comment.

**Donald C. Burns, CEO**  
California Spa & Pool Industry  
Education Council (SPEC)  
980 Ninth Street, Suite 430  
Sacramento, CA 95814  
Tel: 916 . 447 . 4113  
Fax: 916 . 444 ,7835  
spec@calspec.org