

## WHY WE'RE BLESSED TO BE LIVING IN THE USA--AN ENGINEER'S PERSPECTIVE-PART 3

Out of sight, out of mind.

Very few people spend any time at all thinking about what happens to the water they flush down the toilet or send down the sink drain everyday. We spend even less time thinking about the waste water generated by our industrial plants. Ever worry about whether or not you will contract a disease when you pour a glass of water? Ever get tired of going down to the river to carry water back to the house, or do your laundry, or take a bath?

Do you know why we don't think about this stuff very often?

I think it's because we can still swim, fish, and even drink our fresh water here in the USA. In fact, most of us would be surprised to find out that there are many countries in the World that can't enjoy their fresh water amenities without taking their lives into their own hands.

A study completed at Cornell University by David Pimentel, a professor of ecology and agricultural sciences, indicates the following:

-1.2 billion people in the World lack clean water-(that's almost 20% of all the people on earth.)

-polluted water provides a breeding ground for malaria-carrying mosquitoes, killing 1.2-2.7 million people each year.

-unsanitary living conditions account for more than 5 million deaths each year (more than half of them children.)

The Economist (December 11, 2008) indicates that:

-700 million (that's over twice the entire population of the USA) Indians have no access to a proper toilet.

-1,000 Indian children die every day from diarrheal sickness.

How many children do you think die every day from diarrheal sickness in the USA?

Believe it or not, you can click your mouse online and find out how many people in a certain age group died in the USA for a given year on the Centers for Disease Control's website. If you include just about every possible gastrointestinal disease and

kids up to age 15 for the year 2006, the total deaths for the year end up at: 41--that's right, forty-one deaths for the entire USA for an entire year. Granted, India has about 3 times as many people as we do, so you would need to adjust that number upward by a factor of three to 123 deaths for the year to compare apples with apples. But what was India's estimate, again? 1,000 children per day? That means they lose around 365,000 children every year to a disease that is largely preventable by supplying sanitation and clean water to their citizens. That's about 3,000 times as many as us.



While other people in the world are dying of disease and dehydration, those of us in the United States get to play in perfectly good water (Splash Park at Louisville Zoo shown above) and spray it around because it looks pretty (fountains at the Bellagio shown to the left.)

# BLESSED IN THE USA...CONT.

(Editor's note here: This statistic might also point toward a successful Health-Care system, but I am afraid to open that can of worms.)

## WATER SUPPLY

Perhaps we should be a little more grateful for the fact that we can turn on the faucet and drink the water that comes out of it.

According to the EPA, there are approximately 155,000 public water supply systems in the USA. All of them provide safe water to drink.

Check in with UNICEF, though, and you will find out that over 1 Billion people in the World do not have access to safe drinking water-according to their year 2000 Statistical Review. Several countries have safe drinking water for less than half of their inhabitants, including: Guinea, Madagascar, Congo, Rwanda, Angola, Ethiopia, Haiti, and Afghanistan.

Here are some countries that scored higher than 50%, but you might be surprised what their number is: Mexico (88%), Turkey (82%), India (84%), China (75%), Cuba (91%) Viet Nam (77%), and North Korea (92%). (Incidentally, South Korea is listed at 100%.)

The average person in the USA uses almost 70 gallons of pure water every day. Imagine having to carry that up from a creek loaded with raw sewage every day, and then be thankful we live in the United States.

## SANITARY SERVICES

UNICEF defines "improved sanitation facilities" as a, "Connection to public sewer, connection to septic system, simple pit latrine, ventilated improved pit latrine, pour-flush latrine." And according to UNICEF in 1990, 2.6 billion people in the world did not have access to any one of these facilities. Given the world population in 1990 (5.279B), that would indicate that approximately 50% of the world's population was using a public or shared latrine, an open pit latrine, or a bucket latrine for their sanitation needs (or maybe a tree, I guess.)

China and India in the UNICEF study of 2000 were still under 50% improved sanitation facilities. Parts of central Africa

run less than 25% improved sanitation facilities.

It probably seems a little foreign to be thankful for a toilet, because we really taken these every day items for granted, but imagine what the alternatives are--and then be thankful you live in the United States.

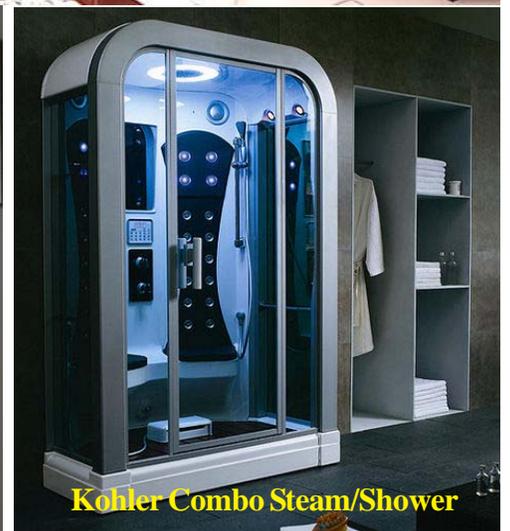
Next month we'll relax and do something a little more fun. Have a great Holiday Season, a Merry Christmas, and a Happy New Year.



Modern Deluxe Bathroom (notice the shower head by the toilet?)



Kohler Combo Steam/Shower



Kohler Combo Steam/Shower



email: [dabec@dabrownengineering.com](mailto:dabec@dabrownengineering.com) website: [www.dabrownengineering.com](http://www.dabrownengineering.com)

5419 Co. Road 427, Suite C  
Auburn, IN 46706

ph: 260.925.2020  
fx: 260.925.1212

510 Lincolnway East, Suite A  
Mishawaka, IN 46544

ph: 574.288.5599  
fx: 574.288.9484