



Society of Piping
Engineers and
Designers

SPED-ZINE

“Industry e-News for the e-Piping Generation”
e-News Flash for Piping Engineers & Designers

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Engineers & Designers

No one in the industry really wants to talk about it. No one in the industry wants to even whisper about it, as if that would make it less real. Some have said, **“If I could make it go away, I would.”** Others have said, **“I want it back to the Good Olde Days when Pipers were Pipers and Chemical Engineers were nervous”**, and yet the issue of globalization and the impact on our industry is never mentioned or openly addressed among the SPED membership. So, let us now consider the topic and let us now talk about it freely.

It is this very topic, globalization, and its impact on our industry that has given rise to this upgraded publication format. Prior to **SPED-ZINE**, this organization published a SPED NewsLetter, which announced training events, training results, the local news on piping related topics that were of interest to the SPED organization and its Sponsors.

This new format will, of course, announce SPED training events and activities, and it will now also include other training sessions by other organizations, which will contribute to the development and continuous training of the SPED membership. That notwithstanding, the true nature of **SPED-ZINE** is its dedication to keeping the SPED membership in the touch with the global events in Petro-Chemical, Refining, Offshore, and Onshore projects. In other words, if there is a pipe involved, the Membership is going to hear about it through **SPED-ZINE**. What else can the Membership expect from **SPED-ZINE**? The Membership is going to get the facts; as they are announced, the events; as they happen, the results; whatever they may be, and most importantly; the reality and responsibilities of

industrial citizenship in this new global community. **SPED-ZINE**'s mission statement to its membership is that it will present and deliver; **“Industry e-News for the e-Piping Generation”**.

The articles, which will be presented, are the good and the bad news as they happen in all areas of the Industry. This publication is designed to keep the Membership up-to-date with the global events that are impacting the industry directly and you, the Membership, indirectly.

So how do you get your copy of this publication, as it is issued? Simple, upon posting a new issue of **SPED-ZINE**, the membership will be alerted of the posting, via, e-mail. Members, and visiting Non-Members to the SPED Website, www.spedweb.com, can then download the latest issue. Membership is not required, but membership will keep you on the notification alert list. So join the Society now or visit the SPED Website frequently and stay up-to-date and in the e-know with the **e-Piping Generation**.

INDUSTRY - MARKET

Crude Demand Sky Rockets But BTC Pipeline May Save The Day

The month of March made the third consecutive month that the International Energy Agency, IEA, increased the demand for oil, sending the economic industrial giants scrambling for available supplies. The demand had reached critical mass because the new emerging industrial giants, China, India and Brazil, were literally negotiating at the drill well. Market demands in mid-March drove the price for a barrel of oil to an outrageous \$57.+/barrel.

Two weeks later, March 30th, Goldman Sachs, sending everyone scrambling and weighing heavily on stocks, forecast the possibility of \$105/brl. Those future projections were possibly based on consumption prediction and demands for future energy needed by the USA and China, which are economically linked according to reports by Bloomberg. Reports stated that the demand for oil in the most populous nations will rise by 500,000, barrels per day, bpd. While OPEC's output climbed by 390,000 bpd, which was attributed mostly, to higher production rates from Kuwait, Saudi Arabia, and Nigeria. The first quarter of 2005 was a gut wrenching three months of oil prices hikes that had developed industrial nations scrambling for leverage. Those prices, however, cooled toward the latter weeks of May as the price dipped below the \$50 a barrel milestone.

On May 26 it was announced that the BTC (Baku-Tbilisi-Ceyhan) Pipeline, "The pipeline that would change the world", was launched. The 42" pipeline will traverse 1,090 miles from the Caspian in Azerbaijan, through Georgia to Turkey's Mediterranean coast. The output of this estimated \$4bln pipeline is expected to deliver one million bpd and will help reduce the Western's reliance on OPEC crude. The US backed pipeline will also help to ease the Russian grip on the energy resources of Central Asia. The pipeline is to supply the US and Europe oil demands for 40-50 years. This fact has caused tensions between Russia and US interests and for good reason. It is estimated that the BTC will draw 1 million barrels a day from a reserve that could hold as much as 220 billion barrels. At present day, 1 million bpd is about one percent of the world production, which will be drawn from Russia's back yard.

So who are the major players that make-up the consortium for this pipeline? The list is a distinguished one; BP, Socar, Amerada Hess, Eni, Inpex, Itochu, Statoil, Total, TPAO, ConocoPhillips and Unocal. Through their investments and cooperation the market place will see a new source of high quality light crude that had not been fully tapped or available until now. It is projected that the BTC Pipeline will be fully operational by year's end.

UK Demand for LNG Finds Source in Qatar

It is expected that Qatar will be supplying 20% of the British LNG demand by 2008. Qatar holds the third largest gas reserves in the world after Russia and Iran. In recent years, Qatar invested \$26bln in natural gas related projects. These projects were in partnership with some of the major leading world companies. By the Ministry estimate, Qatar will be the world's largest LNG producer by 2010. To compliment this expected production level, Qatar Gas Transportation Co., known as Naqilat, is investing \$2.6bln in liquefied petroleum gas carriers and \$0.5bln in a shipyard. The proposed shipyard is to be built in Ras Laffan, and is expected to be operational by mid 2009. The shipyard will be able to service over 7000 ships loading and off-loading in Qatari ports. Naqilat also, has a major investment interest in 56 LNG tankers and 16 other carriers worth an estimated \$16.5bln.

China's Energy Supply Worsens As Economy Heats

China's rapid economic growth is causing an extremely dangerous shortage of that country's most important energy supply. Coal is China's answer for its energy needs, insomuch that two-thirds of that country's power and energy needs are extracted from coal technology. This makes China the world's largest consumer and producer of coal. The demand within China is so great that export quotas will be cut off causing the global price for coal to rise. China's economy expanded almost 10% last year causing the international price of coal to double within that period.

It is expected that the coal consumption for 2005 will rise by six percent, an estimated 120mn tons. This would bring the total annual coal consumption, according to the China Coal Industry Association, to about 2.1bln tons. The growth pattern is so great that even if new coalmines were to open today, they would only contribute an approximate 100mn tonnes for the year. With such growth demands, there is also a transport problem for the overburdened Chinese rail system. The reasons for such huge quantities of coal energy are the demands made by the

manufacturing sector and its expanding industries. They in turn produce product and the rail system is again burdened with factory exports and distribution. Because of such predicted economic growth, China has expanded its use of oil as well, sending the international price of oil to record highs. With shortages looming and energy prices rising there could be social instability among the 1.3bln Chinese, reports China Business Weekly. Only time will tell as supplies become more acute and prices continue to rise. Such market pressures will become evident even more so within the coming months.

SPED NEWS RELEASE

UofH Downtown Awarded Intergraph Education Grant; SmartPlant Suite

The University of Houston Downtown Campus Engineering Technology Department was awarded the Intergraph Educational Grant, which will bring the latest suites of SmartPlant into the campus classroom. The Educational Grant Program awards software to institutions of higher learning and technology worldwide to help students become better qualified graduates with real-world experience in using the most advanced tools for engineering, designing and operating process and power plants and offshore facilities.

Grant recipients under the program are eligible to receive SmartPlant Instrumentation, SmartPlant P&ID, SmartPlant Electrical and SmartSketch software, instructor training and maintenance. Included along with the above comes the SmartPlant 3D and SmartPlant Review which will be made available via training sessions to be announced for SPED Membership. Classes will be announced via the SPED Website www.spedweb.com as they become available. As has been the long-standing tradition, SPED will continue to provide PDS classes as the industry demands arise.

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Professional Development; Estimating Pipe Cost in Turnarounds

SPED Dinner Meeting has been set for June 9th 6:30- 8:30pm at the HESS Club, with guest speaker Dick Ertl. Mr Ertl will discuss an approach to estimate pipe costs in shutdowns/turnarounds. Pipe demolition, fabrication and erection, for different type of pipe, and the special conditions encountered in petrochemical facilities will be considered and during the presentation.

Dick Ertl, has been involved in project estimating, planning, scheduling and tracking, both in the field and home offices of some major engineering and construction companies. Since 1977, he became involved with process plants shutdowns, and creating specialized planning and scheduling systems for the petrochemical industry. He has been personally involved in countless shutdowns, worldwide. His latest offerings sum up his life experience into eTaskMaker, an estimating and planning system, which showcases a conceptual approach to piping estimating.

To make dinner reservations dial 713-221-8224 to speak to Andrea Macejak, SPED Coordinator.

SPED Board Initiates the Student SPED Charter

SPED has undertaken an initiative to create a Student SPED Charter for the University of Houston Downtown Campus. The Student SPED Charter will be focused on providing the students of the Technology Department with access to real-world experience. Initially, the Student SPED program will provide its membership with guest speakers to lecture it on specific topics, which will compliment the Piping Technology Degree Plan. Membership drive is now in process and is being coordinated by Andrea Macejak, SPED Coordinator on Campus. It is expected that student office elections will be conducted during the fall semester of 2005.

For student membership dial 713-221-8224 to speak to Andrea Macejak, SPED Coordinator.

EDITORIAL

Procedures and Safety Run Hand-In-Hand

Ruben Guzman (Just my Opinion)

Have you noticed that lately there has been a noted high note on the issue of plant safety? It seems that everyone has an opinion about the matter, as if we in the Industry needed a reminder of the tragic happenings of the March 23rd blast in Texas City.

For example on April 20th the Houston Chronicle published an article by business columnist Loren Steffy who only after the fact and with hindsight dissected the comments made by National Petrochemical and Refiners Association President, Bob Slaughter. Mr. Slaughter it seems had written a letter to the Houston Chronicle Editor in response to a previously published article on refinery safety records. His response letter was published in the Chronicle's Sunday issue of April 17, according to Mr. Steffy. The dissection of his letter was conducted three days later and it all keyed on a single phrase. Permit me to also key on this phrase to explain the dissection technique used on his phrase that was taken out of context to generate an article.

Firstly, Mr. Slaughter's comment was not a direct reference to the BP explosion but it was understood to be inclusive. *"Unfortunately, in spite of determined efforts to prevent them, there are occasional serious incidents at refining and petrochemical facilities,"* he states in his letter. You will note the complete sentence was noted quoted. That within the quotation marks the statement ends in a comma. This is Mr. Steffy journalistic hook and he sets it in this manner. He wrote, *"People don't die in incidents. Incidents are defined as a "minor occurrence." No adjective make them deadly."* He then proceeds to tell us that Mr. Slaughter's comments didn't imply apathy or callous disregard, however, this was unacceptable to him and he continues by providing us with several bullets statements of how we all know the work is dangerous in refineries and that it is unfair to demonize the refinery owners. He closes his article by telling us that, *"The attitude that jobs are dangerous and therefore nothing can be done simply rationalizes failure. It's not a*

justification for less vigilance. It's the reason for more."

Let me assure Mr. Steffy that we, in the Industry know this fine point of his. Let me also add that the wounds have not yet healed over the March 23rd incident. Let me add that everyone who works in the Industry, as we call it, are saddened by the loss of life and injury to our fellow working brethren. Let me now focus on the known facts; something terrible went wrong at that facility, however there is an ongoing investigation, which I am told will provide insight to the safety failure. The Industry will be reshaped by the results of that investigation and we are all waiting for the results. Every operating processor, construction and contracting company will upgrade all related procedures to comply with the findings and to insure that such horrible events don't happen again.

But as Mr. Bob Slaughter noted, occasionally such events do happen, that is not an excuse for the event, it is however the reality. Consider this comparison as an example. A heart surgeon operates on a patient and he actually stops the heart for a while, and proceeds to make the needed repairs. After, the repairs are done the critical and dangerous phase is the startup of the heart. This phase of re-engaging the beating heart organ with the already operating body system is extremely critical, a tense moment indeed. A moment when the entire surgical team stops and holds its collective breath to see if the patient responds positively to the re-engagement.

I once read of a conversation about a heart transplant operation being described by several truck drivers at a diner. It seemed that they tried to convince each other that it was harder to overhaul a modern diesel engine than it was to operate on a heart. Another customer, a surgeon, interrupted them and told them he didn't think so, and if they wanted to prove him wrong to try to repair a piston on a running diesel engine, modern or otherwise. He made his point crystal clear.

Well, the shutdown/turnaround of a operational unit is no minor thing, and as hard as we try there are on occasion, accidents. Those accidents happen when good engineering procedures are not strictly followed. The re-start-up and re-engagement of a shutdown unit into the stream of an operating plant is a highly critical moment for the plant and its personnel. For that reason there are strict procedures to be followed during such an operation. Those of

us who have worked in the Industry are typically in a continuous educational mode, thanks to such corporate programs that mandate that everyone be trained in project procedures and safety considerations as dictated by Hazardous Operation Reviews.

The Industry, Mr. Steffy would rather wait for the investigation's report before passing judgment on a good corporate citizen such as BP. As for Mr. Slaughter's letter, I believe that it was very uncalled for to mince words and find a story where there was none. Less anyone forget, someone from a high and lofty place has put us through this before. He, as I recall, also used the media to press his point and he argued the subtlety of defining the grammatical use of "IS". The whole world saw through that smoke screen and good people see through this one as well. In our Industry, there are people who push tools to do their work, there are those who push CADD Stations to generate drawings, others push project-engineering calculations to insure accuracy, and now it appears there are those who generate news to push paper.

To best facilitate your understanding of the facts please visit the Houston Chronicle's website www.chon.com/archives and do a search on the topic of BP Explosion. Also, conduct a separate search on Bob Slaughter to read his entire response to the Houston Chronicle article of April 12th.

SPED Board of Directors

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Memorial Announcement

It is with great regret that we are informing the SPED Membership that it has lost an ardent supporter of the SPED efforts to educate and promote the piping profession. Ms. Nan Bentz passed away on May 30, 2005, and her council and concern for the Piping Society and its membership will be sorely missed.

Two adult children, a grateful SPED Board of Directors and Membership, which she so dedicatedly help to support, survive her.