

ESCO NEWS

OCCASIONAL NEWS AND INFORMATION FROM ESCO ENGINEERING

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BUYING ENGINEERING #1

First in a series

It seems that, when a corporation reduces the size of its engineering department, it forgets the value and benefit of engineering - yet another example of Trevor Kletz' dictum 'the company has no memory'.

There always seems to be time and resources to 'try it out', 'fix it in the field', or 'do it over', but not to 'do it right, first time'. Of course, this takes effort and planning, which take up the time of overloaded corporate managers and project engineers - but, as the man says 'You can pay me now, or pay me later!'

The purpose of this series is to explain how engineering can save you time and money, and how to specify and buy engineering, get the best value for your investment, and do it right, first time.

Next time: Why engineer it?

UNIVERSITY TROUBLES

Pete Blokker on his first year in University.

Last fall I returned to school. I was a little leery at first, since I had been out of school for a while and felt that the students coming straight out of high school would have an advantage because the material we need to start university was fresh in their minds. I looked forward to returning just the same to meet these young bright men and women.

After a couple of weeks we had our first calculus test. When I finished writing I felt I had wasted my time coming back to school. I had done poorly, but when the marks were posted my mark was the class average. I was shocked to hear students already talking of the Prof. curving the marks and, what was worse, that this is a common practice for the professors. The student is rewarded for doing the bare minimum to survive which is precisely what most of the students are doing. Do not get me wrong - there are those who are hard working and have a real quest for knowledge. The students who do as little as possible constantly complain about the marks they do get and feel that it is their right to disrupt class. They do not look at a returned test to see what they did wrong and how to understand the problem but rather complain to the Prof. to see if they can get a few more marks.

The universities are as much to blame for this as the students. They seem to feel that industry has no choice but to buy what they are producing. Since the universities are paid on a per student basis, the more students the more money for the university and so they bend towards the will of the complainers. If the universities and professors lent themselves more to education than to research then the student body as a whole would benefit.

The Professional Engineers Association may be able to help in this regard by making a standard professional's engineers exam for each of the different fields. This would prove competence of the engineer and reduce the likelihood of incompetence in the work place. Also as students graduate and take the exam they will find out which universities offer the needed skills to become a professional engineer and which do not. The drop in enrollment at the institutions which are not developing good graduates will help the universities redefine what they need to do to produce a viable product.

This is my two cents. Maybe I have been spoiled by the engineers I have met in my life all being very competent but when I look around a class room and see that 50% of the class should not be there and the university is trying to keep them in their seats for the money, I have to wonder what the future holds.

TECHNICAL PAPERS!

Coming soon:

Neil Stone, our chief engineer, is presenting a paper on the impact the new NESHAP for HCI will have on rod and wire picklers. This will be at the **Wire Association Convention** in Cleveland, Ohio, at 10.30 am, June 2, 1998. The presentation will include a discussion of how to specify and maintain fume scrubbers and fume exhaust systems to meet the new reporting requirements.

If you cannot be there, copies of the paper will be available after the Convention.

Neil already presented a paper on the effect the new NESHAP will have on HCI scrubber sizing, at the 1997 **AISE Annual Convention** in Cleveland, Ohio, on Sept 30, 1997. Copies of this paper are available on request; the paper has also been published in the *Iron and Steel Engineer*, March 1998

THE VIEW FROM THE FIELD

When all else fails.....!

Ever run into frustration, when everything you did just did not work? Well, we all get into situations like this once in a while, but the simplest and least time consuming way is to walk away and hope it will take care of itself. Oh yes? No way! The situation must be dealt with, so that it does not come back and nip you in the butt later.

Invariably a lot of these frustrating problems could be solved fast and without much frustration, if the instruction manual was kept handy, together with a flow diagram or a schematic or the manufacturers instructions. But we all suffer from a common syndrome: "The manual in the drawer, way back in the drawer". Lets put these manuals and diagrams where they do the most good: out with the operator, where he can get at it any time.

A wise teacher once told me: "You don't have to know everything; you only have to know where it's written!" How true, when it comes to operating processes. But if what's written is not there to read, we have to work from memory and even if the memory is good, it sometimes is very short, particularly in frustrating situations.

Do the guy that writes the manual a favor: first: read it, second: have all those concerned read it and third: put it and any related operating information where it is accessible.

TANK EMISSIONS - EVEN MORE USEFUL

Our Excel spreadsheet for calculating vapor losses from pickling tanks into the exhaust air remains much in demand and is even more useful now, we have added a page for estimating **sulfuric acid** emissions - this calculation is less rigorous than the HCl method, but will give a reasonable estimate.

The spreadsheet is free; you can download it from our website, or call us for a copy on disk.

WHYS AND HOWS!

New! 'Whys and Hows of pickle line fume scrubbers' is now available. A practical guide, which includes: types of scrubber; how they work; how to specify scrubbers; and troubleshooting tips. Request your copy by phone, fax or e-mail - it's free!

Our recent publication, 'The Whys and Hows of hydrochloric acid pickling' was much in demand, and it is still available on request, as is the *original* 'Whys and Hows of sulfuric acid pickling'

SCRUBBER CHECK-OUT

Under the new NESHAP rules, all pickle line HCl scrubbers will have to be tested within 24 months, and annually thereafter, unless a continuous emission monitoring system (CEMS) is installed.

Tests are expensive, and failing a test could be even more expensive, so it's a good idea to check the scrubber, for design and physical condition, *before* running any tests. This maximizes the probability of compliance with the test limits.

Esco can provide both design checking and physical inspection services. Call us for a quote.

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GOOD FOR A LAUGH

"We have just installed this amazing new emissions control device..!"