

## **Corrosion Awareness Day**

### **April 24, 2015**

Corrosion Awareness Day was meant to be used as a means to educate the public, industries and government agencies of the deleterious effects of corrosion on our infrastructures worldwide. The worldwide cost of corrosion is currently in the same order of magnitude as the cost to produce and distribute food worldwide. The difference is that the public is somewhat aware of issues related to hunger and the cost of food, but totally unaware of the cost of corrosion today and its effect on sustainability of our infrastructures in the future.

At the same time, the corrosion industry is losing its expertise as our top technologists retire and are not replaced. That includes research scientists, application specialists, technicians and consultants who are now in their 60's or older. At the same time, the opportunities for those entering the field have been greatly reduced as the result of a number of economic changes that have occurred over past decades. For example, in the 80's and early 90's it seemed that virtually every oil refinery and most petrochemical plants had their own resident corrosion staffs. Then industry restructured to centralize many staff functions and determined that they could reduce the number of in-house corrosion experts and replace them with consultants hired on as an as needed basis. Frequently those consultants are their former employees, who are now several years older.

At the same time a number of universities with metallurgical engineering programs replaced them with materials engineering which became focused on advanced materials and nano technologies that made them more attractive to both students and industry, but took them away from the basic corrosion issues, which have become more critical with our aging infrastructures.

So now we have need for more personnel to be involved in the fields of corrosion research and applications, but the corrosion industry has yet to find ways to interest youth and young adults to enter the field. At the same time the number of students in other engineering specialties appears to be at least steady if not growing.

The corrosion industry needs to become proactive and develop programs for students in middle school and high school, say from age 12 and up. To make them aware of corrosion issues through development of age appropriate programs for students in grades 7 through 12, ASM International has developed a week-long program for high school science teachers which includes one day on corrosion. That program is available in the USA, Canada and India at the moment.

The original concept of Corrosion Awareness Day was to get local corrosion societies to team up with universities and industries to develop and implement educational programs for the general public in terms that they can easily understand.

It's time that the various societies begin to work together to promote the field of corrosion to the youth of the world. I would envision the focus beginning with students as young as 8 or 9 and continuing through high school and university or technical school. That is the goal of Corrosion Awareness Day!

George Hays