It’s passion that will lead to brighter nuclear future

Last month I talked about innovation in the nuclear industry focusing on the perception that nuclear is not innovative. Since then I attended the Canadian Nuclear Association annual conference. Its theme this year was “Developing the next generation” which in this case focused on developing the workforce of the future.

While the discussion at the event was about Canada, the theme can be applied to many countries. Essentially, it was noted that the industry has numerous opportunities that offer well paid interesting work for the long term. And, of more importance it was made clear that the industry is only as good as its people; hence the need to attract the best and brightest.

With all the good discussion, what caught my interest was the guest breakfast speaker, Taylor Wilson, known has the boy who played with fusion. At 19 years old, he gave a great talk (already having given two TED talks) about his passion for all things nuclear. I am not going to discuss Taylor’s achievements or strong technical skills, both of which are certainly impressive; and he is also extremely articulate proving that scientists can indeed communicate well. But what really got me excited was his passion for nuclear science. This passion ignited the audience by reminding us all of our own passion for the industry.

I remember being a young student studying nuclear engineering at RPI in Troy New York during the 1970s. What drove me to go into nuclear was the mystery and excitement of this still relatively young industry. I wasn’t looking for a job; I was looking for a future. The oil shocks had happened and it was clear that the world needed alternate energy. Being able to

provide almost limitless energy to power the world, nuclear power seemed to be the solution and I wanted to be part of it.

I was not unique. Many of my colleagues; many of whom (older than me) were the pioneers of nuclear energy, were inspirational in their dedication and passion for nuclear power. I am not talking about the early great scientists who harnessed the atom, but rather the next wave of people, both technical and political who drove the industry forward securing commitments to, and then building the 400 plus Generation II reactors in service today. This past December was the sixtieth anniversary of President Eisenhower's Atoms for Peace speech to the United Nations. This speech launched a new industry around the world. I would name some of those who contributed but they are too many and I don't want to leave anyone out. Rather, I invite you in your comments to note who inspired you either to enter the industry or along your career to keep on moving forward. (Some of the pioneers of the Canadian industry are listed here.)

And they succeeded. They developed one of the most important energy technologies known to man. In less than fifty years, an idea was turned into a commercially viable energy technology meeting about 12% of global electricity. And that number, of course, is deceptive since about half of the countries that rely on nuclear energy use it for 20% or more of their electricity supply.

Of course there have also been numerous challenges along the way that saw the industry slowdown in the latter part of the twentieth century. Recent developments as the world looks for solutions to climate change has re-ignited interest in nuclear power as a part of the solution. This is also in the context of the 2011 accident in Japan which once again raised fears of the industry and its potential negative impacts.

For most of us who have spent our careers in the nuclear industry, we remain just as passionate today as we were when

we were young and our belief in the benefits that nuclear energy bring to society continues to be strong. There are others who have been worn down by the relentless effort required to sell these benefits and the years of attacks against the industry. The result is a defensiveness along with a weariness that has reduced efforts to move forward as many in the industry focus on survival. It is now time for a new generation of passionate young people like Taylor Wilson to take this industry into the future. I know they exist. There is the nuclear Young Generation Network (YGN) with chapters around the world. For those of you YGN members who read this, please give your views.

It is not just about opportunities for employment, but rather about opportunity to make a difference. The question becomes, not how do we find the nuclear workers of the future – but how do we inspire the passion in a nuclear future that we all had (and continue to have) when we started our careers to attract the best and brightest to our industry going forward? I would guess that if you went to any university graduating class and asked for the 10 most innovative and exciting industries of the future, we would likely not make the list.

I talk about communications in this blog quite often. But most of the time I talk about how we can promote the industry and reduce the fear of radiation in the public. But we must also consider how to communicate to a new generation of potential nuclear industry professionals the excitement, innovation and societal imperative so that they can develop their own passion.

I love working in this industry and I wouldn't change my experiences for anything. Now it's time to help build the industry of the future – and that means inspiring young people to take a leap of faith and jump on board.