

World Nuclear Association Annual Symposium
7-9 September 2005 - London

Thursday Lunchtime Address

Jerry Grandey

Good afternoon.

It's an honour to be asked to address this audience as a luncheon speaker.

In his later years, Winston Churchill was asked to do a commencement address at Oxford University. After his introduction, Churchill went to the podium and said, "Never, never, never give up." Then he sat down.

I won't be quite as brief as that but I will try to use Churchill's brevity as inspiration.

We're here in our traditional London venue to chart the future course of this marvelous industry and, not incidentally, to celebrate a birthday.

It's not just any birthday. It's a 30th birthday - a milestone for the World Nuclear Association – that permits reflection and an occasion to look forward.

Some may think 30 years is a long time, but in the reality of human history, it is a snapshot. Nevertheless, when the WNA's predecessor – the Uranium Institute – was formed 30 years ago, the world was a much different place:

- Home computers were a new concept.
- Saigon had just fallen, ending the war in Vietnam.
- An American astronaut and Soviet cosmonaut shook hands in space for the first time.
- John Lennon was still alive.
- Prince Charles had never been married.
- We'd never heard of AIDS.

- Jack Nicklaus won his record fifth Masters title.
- Cell phones, walkmans, and CDs were the stuff of science fiction.
- And blackberries were something we ate.

I was also different.

You see, 30 years ago, I was transitioning from being a bearded, long-haired anti-nuclear activist – with a record of opposing the licensing of some of my best customers’ nuclear plants. But as nuclear technology evolved, so did I. My “conversion”, about which someone recently asked, came slowly, but by the end of the 1970s, I was on the “right side” of the seldom intellectual and often emotional debate.

I have now viewed the industry for well over thirty years - longer than the existence of this organization. And over the years, I’ve seen the industry pass through its highs and lows.

The turnout here today - and the important work that is being done at this symposium – is a clear indication that that the World Nuclear Association is moving into its fourth decade with a singularity of purpose and great momentum

An organization that is 30 years old is built on a strong foundation and I cannot let this occasion pass without paying tribute to the steady hands and instrumental roles performed by successive Secretaries and Directors General, and in particular

- Terry Price,
- Jan Murray,
- Gerald Clark,
- and John Ritch.

All these have all, in their different ways, promoted our industry and taken this organization forward, with each leaving their own personal stamp.

I am very pleased that two of these former leaders are with us today. Terry Price and Gerald Clark, will you please stand? A third, Jan Murray, would be here if she were not at a meeting of her current organization, the WEC, in Sri Lanka.

This organization, if you will, began as a supplier-dominated organization in the boom of the 1970’s – a time when OPEC threatened the world’s petroleum supply. With oil prices going higher and gas lines growing longer, nations around the world began to look for alternatives. Given its promise of energy independence, nuclear appeared as a new, clean and cheap alternative – the next wave of technology. The emerging industry was ripe with optimism and expectations for a bright future, built on the dream of President Dwight Eisenhower.

We thrived through this period. A thousand reactors or more were to be built and uranium supplies needed to be found and developed. Questions about the

abundance of uranium brought consumers and intermediaries to the group and it expanded rapidly, focused primarily on the future balance between supply and demand.

Uranium prices rose unexpectedly and rapidly in the later part of the 1970s –the increase driven largely by a perceived, rather than an actual, shortage. Euphoria reigned and predictions of \$100 prices were spoken while consumers scrambled to invest in primary supply. Oil companies, convinced that petroleum supplies were finite, broadened their energy mandate and invested in uranium.

The moment did not last! Decreased electricity demand growth and the advent of anti-nuclear sentiment in the shadow of Three-Mile Island and, then, Chernobyl, threw cold water on our collective aspirations. The overheated market for our technology disappeared like a mirage on the receding horizon. Uranium prices succumbed to inventory liquidation and pessimism.

Nevertheless, my boss at the time (Bob Adams) opined that the lower uranium prices go, the higher they would bounce. Prices were in the \$30's headed to much lower levels with only occasional “dead cat” bounces.

When production and consumption finally matched in 1986, there was light at the end of the inventory tunnel. But the light turned out to be the proverbial freight train bearing additional inventories from the former Soviet Union and the dismantling of weapons materials. The collapse in price continued through and beyond the decade of the 1990s.

Anti nuclear activism stifled discussion and nuclear technology slipped from the public consciousness.

For this organization, membership numbers declined in parallel with the decline in the uranium price, and the main concern became survival – survival of both the industry and the association.

Nuclear reactors, it was believed, would close at the end of their licensed life or, all too often, earlier.

Then in the late 1990s a glimmer of hope appeared as performance excellence and improved safety and fundamental economics resulted in life extensions for the current generation of nuclear plants.

This confluence of events provided the industry sufficient confidence that it could, once again, offer humanity the environmental, security and cost benefits that nuclear technology offers. Still, dark clouds appeared in some regions driven by green party zealotry and weak political leadership. Nuclear technology continued to be politicized.

But by the start of the new millennium, the world was rediscovering nuclear technology and the WNA began to see a new role – a role based on our vision for “the coming nuclear century” –and a broader mandate to advance the benefits of nuclear energy internationally. This vision has been painted graphically by John Ritch and his capable staff.

The first visible sign of our renewal was the name change from the Uranium Institute to the World Nuclear Association. Under John's leadership, we have launched an international promotion of nuclear energy built upon the argument that it is a sustainable and essential resource. The renewal has, once again, attracted a broad cross-section of diverse members devoting substantial time and energy to advance the arguments for a sustained nuclear renaissance.

The questions before us now:

Are we simply at another high point in the cycle – with another valley looming?

Or, is nuclear energy truly sustainable?

I believe, and I suspect you do too, that nuclear energy is here for the long haul. Why?

Well, I will touch upon a few of the reasons:

- the world's insatiable appetite for electricity, driven by increasing population and quality of life aspirations;
- the industry's sustained and improved performance;
- the promise of a new generation of nuclear reactors;
- the renewed interest of the world's important decision makers;
- the ability of our technology to deliver the large quantities of predictably priced electricity needed without air pollution or greenhouse gases with minimal waste, and, not least;
- the abundance of uranium.

If indeed we meet the test of sustainability, can we collectively meet the challenges before us?

The short answer is yes – if there is a collective political will strong enough to escape the “mythology” of the past and sufficient encouragement to invest in new reactors and the industry's supply infrastructure.

The signposts are positive.

- We have seen renowned environmentalists like James Lovelock – originator of the GAIA theory – and former Greenpeace head Patrick Moore emerge publicly in support of the industry.
- There are plans for new reactors across the world. In the world's biggest market, the United States, new legislation has laid the foundation for new nuclear plant construction – a goal actively supported by president Bush as part of that country's quest for energy security.

- Japan has released a strategy to double its nuclear capacity to meet its future energy needs and reduce carbon emissions from fossil fuels.
- And the list goes on.

It is increasingly evident to the public, opinion leaders – and investors – that nuclear energy must be part of the solution to meet humanity’s needs for energy and to do it cost effectively, without damaging our environment.

Moving forward, industry organizations like this one, IAEA and your national organizations will continue to play a pivotal role. They will be important champions in presenting the case for improved investment climates, educating restrictive jurisdictions, and lobbying for consistent and reasonable licensing and investment climates.

They will provide a forum for discussion and communication of important issues. They give us a strong collective voice and they allow us to share information and scientific breakthroughs. They will also help assure we maintain safety standards that ensure the long-term viability of the industry.

So it’s up to all of us. Our WNA, today 30 years old, is only as strong as its active membership. We have had a long and interesting evolution to a position of international prominence.

Our challenge now is to remain active, build on our successes and make sure we are prepared to meet the promise of the new nuclear century. Anticipating success built on the perseverance unique to this industry, I am confident we will return to celebrate a significantly expanded world presence in the coming decades.

So in closing, I propose a toast to the WNA:

In celebration of how far we’ve come

In anticipation of a bright future

With thanks to everyone who made it possible

And with hope for a bountiful ‘next 30 years’.

Happy 30th birthday.