

# Luncheon Speech

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Thank you ... good afternoon. It's hard to believe this is the 12<sup>th</sup> annual NRC Regulatory Information Conference. When the agency held its first conference in 1988, the industry wasn't quite sure what to make of it. I don't think any of us had ever seen that many NRC staff together in one place before. But we got used to it.

Over the years, these gatherings have evolved into dynamic working meetings, with a lot of good dialogue between the NRC and its various stakeholders. I think it's especially valuable for the public to have an opportunity to see the NRC and its programs explored in so much detail. Even for those of us who are directly involved in nuclear energy, it isn't always an easy industry to follow. I commend the NRC for its efforts to make the regulatory process more open and scrutable. That's a win-win situation.

At this conference, we've talked about the new regulatory oversight process, which will be implemented *across the industry next month*. It represents a *major change* in how the NRC regulates—and in how the industry thinks about and manages its business.

I think we've seen more change in the regulatory process in the past two years—*real, substantive, positive change*—than we saw in the previous *10 years*. Someone asked me, recently, what motivated the NRC to change the regulatory process *now*. What really got things moving?

One key factor is that the NRC recognized the industry's sustained high level of performance and its improved ability to compete in the marketplace. Far from the beleaguered industry of a few years ago, the NRC saw an important technology with a promising future—a future that could depend, in part, on the efficiency of the regulatory process.

Another factor, of course, is that Congress provided support and encouragement to the NRC's reform efforts. That support *has been, and continues to be*, very important.

But there is still more to the story. The pace of change accelerated for three reasons: One, the industry and the NRC already had spent *years* laying the groundwork. Two, economic deregulation of the electricity industry made it clear that safety regulations must be as effective and efficient as possible. And three, change seems to follow an exponential pattern.

There's an old story about an Indian rajah who was so delighted with the game of chess ... that

he offered the inventor anything he wanted in the kingdom. The inventor thought for a moment. Then he said, “Just one grain of rice, your excellency, on the first square ... two on the second ... four grains of rice on the third ... and so on through the 64 squares of the chessboard.”

On the first half of the chessboard, it’s not that big a deal. The rajah has to give him  $2^{32}$  grains of rice—that’s four billion grains, which he could easily get from his rice fields.

But by the time he reaches the 64<sup>th</sup> square on the chessboard, the total will be 18 *billion trillion* grains of rice. According to the story, that’s enough rice to cover the Earth twice over.

That’s the power of exponential change.

*In case you were wondering*, we’re now on the second half of the chessboard—so hold on to your chairs.

This story leaves one key question unanswered: Did the rajah go bankrupt—or did the inventor lose his head? I like to think that they worked out a win-win solution ... because that’s what one has to *do* in a period of rapid change.

To achieve a win-win solution, we have to look at this industry from a fresh perspective.

**First**, I *encourage* you to step back from your immediate concerns and *absorb* the positive developments that are taking place related to nuclear energy. Gain a fuller appreciation of the tremendous value this technology offers.

**Second**, I *encourage* you to change the way you think and talk about this industry. Change the way you look at your job. Discard any old, pessimistic ideas you may have about nuclear energy’s future and replace them with the positive view of someone on a winning team.

**Third—and most important**—I *encourage* you to make this industry the benchmark for safety and quality in the energy business. A real winner never grows complacent, just because he or she is between races—or between *inspections*. A real winner is guided by an internal standard. Aim high!

**I encourage you** to recognize where nuclear energy is *today* ... and to chart your course from this point.

Competition is drawing positive attention to this technology. It is focusing political attention on the strategic importance of nuclear energy. It is removing stranded costs as an issue and allowing us to focus on operational economics going forward. And competition is acting as a powerful impetus to consolidation, and to the economies of scale that it can achieve.

I remember an article in *The Wall Street Journal* last fall that referred to a “renaissance” taking place in this industry. The article said that such a development would have been unthinkable five

years ago.

Too many of us are looking at the nuclear industry today from the perspective of five years ago—maybe 10 years ago, in some cases.

This is today's nuclear energy industry:

- Safety, performance and reliability are up.
- Economic performance is solid, with output and cash flow up.
- The business fundamentals are very strong and trends are moving in the right direction ... and there is *more value yet to be gained* from U.S. nuclear power plants.
- Policymakers and the public are beginning to recognize that emission-free nuclear energy is vital to support continued economic growth, while protecting the environment for future generations.

Last year, U.S. nuclear plants achieved an average capacity factor of 86.8 percent. Output was up 8 percent over 1998 ... for a total of 728 billion kilowatt-hours. In fact, because of the increased output from U.S. *nuclear* plants, the equivalent of about 12 large-scale power plants has come on line since 1990.

Nuclear power plants are being bought and sold—and as demand for these units increases, so do the asking prices. Why would anyone buy a nuclear power plant? A recent newspaper article put it this way:

You don't have to be a nuclear engineer to understand the reasons. Nuclear plants, particularly large ones, have some of the lowest electricity production costs in the country.

The same article quoted a financial analyst, who said: "It's hard to come up with transactions that are anywhere near this profitable."

As I mentioned a moment ago, I believe there is far more value *still to be gained* from the industry's nuclear generating assets. NEI has identified seven key points that we call the *building blocks of additional value* for these plants. **Performance** and **electricity price** are the first two. They're pretty obvious.

Some of the other building blocks of value *aren't* so obvious.

What did you pay for gas the last time you filled up your tank? Any of you have oil heat? Energy price spikes mean *tough times* for many businesses and individual consumers. **The third building block of value for nuclear power plants is that they provide a high degree of price stability.**

In competitive markets, we are seeing large electricity users willing to pay a premium above the average market price to *lock in* an assured source of electricity supply at a known price ... and they view nuclear energy plants as the way to *provide* that stability.

**Building block four is transmission system support.** As you know, nuclear power plants provide ancillary services such as voltage and frequency support ... and helping to maintain the reliability of the grid. These services have significant economic value in a deregulated electricity market.

Many plants also have significant additional site value. That's the **fifth building block**. In some cases, sites that host one or two units were originally planned for more units ... so they have space that could be used to build additional generating facilities—fossil ... or *even new nuclear units*. This extra space *already* is equipped with switchyards, grid access and spare cooling capacity.

Building block six is the clean air compliance value associated with nuclear energy plants. The emissions avoided by these plants alleviate compliance obligation and associated costs for affected fossil-fired power plants. This is becoming increasingly important as the United States faces stricter clean air requirements.

Today, nuclear energy plants do not receive credit—monetary or otherwise—for these services ... but we see that coming in the future.

**The final building block of value is management.** Operating a world-class nuclear generation business requires a special set of capabilities, management tools and techniques. These tools and techniques have value beyond the energy business. For example, one nuclear company won a contract to provide maintenance management services for a major retailer with stores all over the country.

These seven building blocks of additional value are part of the industry's message to Wall Street. Nuclear energy offers:

1. Competitive price
2. Solid performance
3. Price stability
4. Transmission system support
5. Site value
6. Clean air value
7. Management expertise.

This is the *short course* on the benefits of nuclear energy.

With these benefits in mind, **I encourage you** to change both your perspective on nuclear regulation and the way you do your job. If the new regulatory oversight approach is to achieve its promise, a fresh, new perspective is essential.

Here is one of my favorite quotes:

This Commission believes that it is an absorbing concern with safety that will bring about