

The Extroverted Engineer

10/12 - Speech at ANS Student Chapter in ISU

I am delighted to be on the ISU campus once again. I am especially delighted to be speaking to you all again this trip. I try to come to your meeting every time I'm in town, but last time (March of this year) there was something a little bigger going on.

Tonight we're going to talk about Fukushima (again), but from a very different angle. I'm going to tell you about the media experience and the impact that a technical expert can have.

I'm pretty comfortable in front of a group of people. In fact my mother would tell you I'm a little TOO comfortable in front of a group of people. It may surprise you to know then, that I hate cameras (unless I'm BEHIND them) and

the sound of my own voice. Why? I'm told I'm quite photogenic, in that I look much like myself both on and off camera and that my voice and diction work well on a microphone. Therein lies the problem. I'd really rather look like someone ELSE on camera. And my voice is really much cooler sounding in my own head (or at least in the shower). I'd like to think I'm a Katherine Hepburn, but the picture and sound deny me that bit of fantasy.

So how did I end up on camera and talking to reporters from all over the world? And perhaps more importantly WHY?

There's this thing called the Internet. To quote Eric Schmidt, former Google CEO:

The Internet is the first thing that humanity has built that humanity doesn't understand, the

largest experiment in anarchy that we have ever had.

We've talked about social media here before. In fact, in something of an ironic twist, one year ago, I guest lectured the dean's leadership class and talked about how BP and Tony Hayward misunderstood the impact of social media and MSM on the Gulf spill and mismanaged the information flow. Sadly, TEPCO and Japan's government did the same thing.

Direct information from the closest sources was available to anyone with a computer. TEPCO, NISA, and other critical websites were up and running within hours and steady updates of information were being provided. Completely false hyperbole was available from anti-nuclear websites even faster. Sifting through all of the information was overload on journalists, let alone the average "man on

the street”. This represents a fundamental shift in communications from prior nuclear “events.”

The ANS has a “list-serve” of pro-nuclear communicators. Kind of an on-line party. On March 12, 2011 as it was becoming clear that the reactors at Fukushima Daiichi nuclear power site in Japan were having issues, the group starting having more conversations about these events. Many on the list were complaining that the air waves and print media were being dominated by wild speculation of people with a strong anti-nuclear agenda. Finally, one member of the list put out a challenge to the rest of us. He said:

“IMHO the nuclear industry needs to be more proactive in getting on the short list rolodex of newspapers like the NYT, WSJ, WP, LAT, USAT,

etc. and not carp so much about who reporters talk to.

If nukes want to be heard, they need to speak up.”

My answer back was:

I hereby volunteer my services. How do we go about getting on the "who to call list?"

Don't ask me why I did that. I guess that I had to put my money where my mouth was. I had lamented for years while employed at a large corporation that we nuclear people needed to be out there talking more, especially in the bad times when large corporations are most prone to silence. Now that I am no longer so fettered, I needed to stand up and speak.

What happened next was amazing. Matt Wald, lead science journalist from the New York Times (and a lurker

on the list serv) called me which ended in a quote in the Times. From there, it went crazy. The Weather Channel tweeted me asking for an interview. (Why? I don't know either.) The local TV station was asking for interviews. I was refusing any on-air interviews mostly out of fear and loathing. But, people from Fox news, CNN, New York Public Radio, etc started calling and e-mailing. Getting a call from NBC asking if I would be an expert on background for Robert Bazell was a heady experience. Then the PR folks at ANS came to my rescue. We helped each other. They sifted through the calls and e-mails and decided which ones would maximize my effectiveness and which could be given to others.

AND those PR folks convinced me that I could be more effective on camera and behind a microphone. Some coaching and some listening and one key statement: "YOU

know more than 99% of the people out there and 100% of the journalists.”

So it began. I went to Raleigh 4-5 times (about 2 hours down the road) to do live and taped remote interviews – those are strange let me tell you. You sit in a small room with a fake skyline behind and either looked meaningfully into a camera, or stare to one side as though there’s a person there. My FIRST interview was a live remote interview on the Sean Hannity Show on Fox. I was TERRIFIED. Some guy from the Physician’s for Social Responsibility (anti- nuclear “any radiation will kill you”) and an equally out there pro-nuke who was too far into denial were on before me. Couldn’t tell when the camera was on in my studio, have this THING stuck in my ear.

Skype interviews were easier – I didn’t have to get to Raleigh. BUT, my office (in my house) faces west and

didn't have black-out curtains. The first interview, I had maybe ½ hour notice. My husband frantically grabs tin-foil and blacks out the windows. We left it up for several days and interviews. He told all the neighbors we were worried about Fukushima.

Doing this puts my career and my reputation at risk. But I could no longer stand in the shadows and say "Somebody should do something." There is risk involved in taking a positive stand. I call that risk: "The Optimist's Conundrum". It goes something like this:

An optimist and a pessimist both look at a situation. The pessimist says: "It is going to fail. A terrible tragedy. People will die." The optimist says: "It's OK, it will work. No one will die." Events unfold. Things neither one predicted happen. The situation resolves and all can see the result.

If the pessimist was wrong, he can say: “We were lucky. The next time People will die.” BUT, if the optimist was wrong, people died. That is a terrible burden. And one that makes many afraid to be the optimist.

We, who are out there, declaring that things will be OK, are the optimists, but each and every time something happens, we have to step up to that plate and take a swing. And each and every time, we have to hit the ball. Those of us that have stepped out worry, pray, and struggle with doubt when things go awry.

There is real fear in getting out there. You might be wrong. But if you are honest, and admit it, the media will still come back to you for more information. I WAS wrong: Let me tell you another story:

March 16th: I was getting ready to go to Raleigh to do a live remote interview on Elliot Spitzer’s In the Arena. Hav-

ing watched the show the night before, I was already very nervous. However, knowing that the PRODUCERS really control the interview and the producer I'd been working with liked me, I was hoping for the best. A different producer calls and says "what is your opinion of Chairman Jaczko's recommendation of 50 mile evacuation zone?" First I'd heard of it. Told her I had no opinion, I hadn't heard his statement, knew nothing about it. She sends me a link to the congressional hearing. Calls me back and demands an answer. I could only say "Dr. Jaczko is privy to information I do not have, I can't speak to the reasonableness of his recommendation." The producer gets more aggressive "Are you questioning the chairman of the NRC's judgement?" I repeated my statement. My heart was sinking into my shoes. This interview was going to suck wind big time...

As the limo was taking me to Raleigh (one of the few perks), Fritz from ANS PR firm called to tell me about the belief that the unit 4 pool was on fire, the helicopter water drops, and the rest. I nearly fainted. I'm going on a national show and going to get completely fried. I had believed TEPCO and NISA, and got this wrong. It was going to be awful.

Thank heavens – they bombed Libya that night. I got pulled off the program and Spitzer sent flowers as an apology. I was riding home that long 2 hour drive in tears. First, I was grieving for the workers and people of Japan that I feared would be killed in the terrible clean-up of the lofted contamination from 4 spent fuel pools. Second, I thought all of my work with Robert Bazell and Matt Wald was completely over. They would never call again, and worse, I would be labeled as a pro-nuclear nut job with no

credibility. My phone rang – it was Bazell. We talked for 30 minutes – which is a lifetime to these people. He wanted to know what questions to ask TEPCO and NISA at the next press conference to understand the risks of these pools. No doubt in his mind that I was still a useful and reliable source of information.

Then Matt Wald called. I told him that I had never expected to hear from him again after having been so wrong. His answer was a verbal shrug. He told me that he had covered countless plane crashes. In almost every case, everything he KNEW at the beginning turned out to be wrong. The fact that I was willing to admit the error and continue to talk the facts as we knew them made me a valuable source.

Both men have continued contact sporadically ever since.

And, in the end, I was right, and Dr. Jaczko was wrong. The pools never caught fire. The videos of unit 4 show a pool that is intact, and undamaged (at least on the inside). The other pools look more damaged (unit 3 in particular), but still clearly holding water. Contamination levels indicate that the fuel in the pools is substantially undamaged.

We didn't always get the right message on the air or into the print articles, but each time we touched a reporter, a journalist, or an interviewer we injected truth into the situation, we left that person a little more educated about nuclear power and, perhaps a little more thoughtful and a little less fearful.

This is a powerful presence out there in the land of sound bites and instant gratification. We talked to people at the most influential papers and news outlets in the country, places like CNN, FOX, NBC, NPR, NY Times, and

the Washington Post. We spoke to people at all points on the political spectrum. By speaking the truth in verifiable ways, demonstrating expertise, and having our statements born out in the events in Japan, we changed the way these outlets reported this event. The reporters we talked to and influenced reported more factually, with more balance, with less hysteria.

To understand the breadth of reach, I talked to Fritz Schneider at Clark Communications (ANS PR firm), he tells me that in the months following the earthquake and tsunami ANS generated over 85 million hits in the Main Stream Media. I knew I'd hit the big time when I googled my name and saw really nasty blog postings on DailyCoz and HuffingtonPost.

Engineers don't step into the limelight easily. I've often said that you can tell an extroverted engineer from an in-

troverted on because he looks at your shoes instead of his own when talking to you. But we, the engineers and scientists who know the nuclear power industry, know how hard we have all worked to make it as safe as possible, and know what these machines can do better than anyone else, have a duty to step up to the plate and take a swing. We have to help people understand our industry, not shroud it in techno-speak and jargon. Acknowledge the flaws and fix them, point out the best practices and make them stronger.

I'm asking each one of you to find a way to do something. Together, we can be a powerful force toward changing the conversation in this country. Talk to your local rotary. Become a resource for the local reporters. Knowledge is a powerful ally against fear.

This is why I stepped up and spoke out. To set an example and live by my own words.