

WASTE AS A FEMINIST ISSUE

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Introduction

Although the technology is different, the nuclear industry's high level waste issue is psychologically similar to the hazardous waste issue that will face other industries in the coming decades. I believe we, in this room, have learned key lessons in working with the nuclear waste issue that can be of immense benefit to others involved with hazardous waste. We do have insight which is worth sharing.

The Public and Technology

One lesson we eventually learned comes from the behavioral sciences. Our eyes and brains do not merely register some objective portrait of other persons, groups or things but our very acts of seeing or hearing are warped by what we are taught to believe or what we want to believe and, in a deeper sense, we need to believe. The end result--people view anything new as dangerous. We should have recognized this characteristic from the beginning. Examples have been prevalent throughout our history.

Former director of the CIA Admiral Stansfield Turner recently reminded us that in 1868, the USS Wampanoag was a steam-driven warship that could go twice as fast as any sailing warship afloat and because it was propelled by a steam engine, it was not subject to the vagaries of wind. It surely was a naval-tactician's dream. Unfortunately, naval officers instinctively rejected it as something too revolutionary, decrying its profound differences from ships in use at the time. In 1869 the navy dropped the Wampanoag from the fleet. Another ship of its equal was not commissioned for almost thirty years.

The world is not necessarily as it is, rather it is as it appears to us depending upon our background, education, and experience or our intellect's reaction to the information we hear, read and see.

Not long after Lee DeForest invented the vacuum tube amplifier in 1906 he was arrested for mail fraud. He had been telling stock purchasers his service would be able to transmit the human voice across the Atlantic. DeForest was acquitted, but if he were inventing his gadget today, he might still be in trouble. Before he could go into production there would be a long delay while committees studied the environmental impact of bouncing radio-waves off the ionosphere. Did we learn anything from this lesson? Probably not.

Nuclear Power Today

It is shocking but true; we know the atom better today than we know the mind that knows the atom. For more than 20 years, the commercial nuclear industry has operated under unprecedented public health scrutiny. To date there have been no radiation related injuries, let alone deaths, suffered by any member of the public from the operation of commercial nuclear power plants. Yet, fear has virtually stopped the commercial nuclear power industry in the United States.

Historic Lessons

Let me share the reason I think this happened.

An historical perspective is critical to an adequate understanding of how the nation's views on nuclear power changed in the United States--particularly women's views.

You could not have understood World War II and predicted its outcome from a week's worth of 1943 papers. 1943 coverage of scrimmages, engagements and full battles would give no insight to the historical origins of the war, the strategies of major powers or the economic and industrial leverage that contributed to its outcome.

Similarly the nuclear issues of the moment--waste disposal, radiation, reactor safety--are merely the engagements of the battles of the day. They give little insight into the longer-term dynamics of the major issues and their impact on our industry as a whole.

Once, there was no nuclear controversy or concern about nuclear waste. If people worried about radioactivity at all, they did so at the movies. In the '40s and early '50s the screen regularly demonstrated how large doses received at close quarters would turn the unwary scientist and his philodendron into raging monsters or call forth some primordial sea creature to maul a helpless coastal city.

Because of concern beginning to rise about nuclear weapons and testing, the late '50s children were constantly being reminded that they were being raised in the shadow of the bomb. The threat of nuclear annihilation hung over our classrooms, playgrounds, draining the joy from our bicycles, hoola hoops, and silly putty. When we sought escape at the movies, we discovered the 15-story insect which was about to devour Cleveland was a mutation that was caused by those atomic tests.

News articles inform today's children that they are being raised in the shadow of Three Mile Island, that nuclear plants are tied to increased crime rates, that eyeless animals born near Three Mile Island are an indication of things to come once nuclear waste dumps proliferate across the land.

The Technician and Society

Society may not be any smarter, but it has become more complex and demanding. Modern men and women can't possibly assimilate the

volumes of published material available today. As a result, as this august body is well aware, we live in an age of specialization. Each of us in this room has become an expert in a particular area concerned with the technical integrity of our own speciality. But as a group, we are aware that technology and industrial development have always been somewhat of a Faustian bargain. Advantages breed disadvantages--unpleasant side effects, as commercials say. The challenge for the technical community lies in attempting to minimize the risks which can never be eliminated. That is the price we pay for our technological progress. With risks minimized, our Faustian bargain is more equitable for all concerned. Unfortunately this is not common public knowledge.

Historically, professions like ours have been primarily concerned with technical integrity of our own speciality within the rest of the technical community. No one saw a need to establish dialog with the general public or special interest groups, including women's groups, about decisions governed by our own profession. As society became more complex, this mode of operation became more intense as our democratic institutions became more and more unwieldy. At the same time our profession failed to note a rather dramatic change slowly taking place, the public began making our decisions for us...decisions based on propaganda not fact.

The Propaganda Factor

Jacques Ellul, a professor of law and social history at the University of Bordeaux, wrote in his book, Propaganda, that modern propaganda cannot work without modern mass media communications or without education. It is most disconcerting that he designates the intellectual as being the most vulnerable to modern propaganda for three reasons.

1. They absorb the largest amount of second-hand unverifiable information.
2. They feel a compelling need to have an opinion on every important question of our time and thus easily succumb to opinions offered to them by propaganda on all such indigestible pieces of information.
3. They consider themselves capable of "judging for themselves."

This effect created a profound impact in the public arena recently as far as some women are concerned. Although the labor force has increased by half over the past twenty years, women in the work force have increased by almost twice that. More than 45 million adult American women are earning pay checks this year--of these 55 percent are married and living with their husbands, 25 percent are single, (never married) and 20 percent are separated, divorced or widowed. Many of these women could be considered within the definition of "intellectual" and thus, form a constituency the nuclear industry has largely ignored.

The Feminist Issue

Unfortunately, about this same time hazardous waste was adopted as a symbolic issue for some feminine activist groups who view it as as a literal "byproduct" of our industrial culture; a tangible example of some of the negative effects of our industrial processes.

These activist groups have made waste an issue. One of the strongest and most consistent findings of nuclear power public attitude studies has been that women are more likely to be opposed to nuclear power than men. Why? In my view, waste is one of the key reasons--more specifically the radioactive characteristics of waste.

John Wilkes of New York Polytechnical Institute speaking to the American Sociological Association reports that a review of more than 100 studies indicates that the mean support level for nuclear power is 65 percent for men and 45 percent for women.

Data from Europe and Canada show the sex differential holds cross-culturally as well. What does this have to do with the waste issue? A great deal. In the nuclear arena women's concerns go beyond images of explosion and nuclear warfare and are centered more on the long-term effects of radiation. According to Kaspersian of Clark University when a group was given the word radiation and asked to free associate, 2/3 of those who responded with the word "disease" were women. In their role as nurturers and caretakers of life women feel a special responsibility to oppose life-threatening technologies that could cause potential special effects to women and in future generations.

Women also relate the use of the atom, and chemicals in general, to issues of reproductive rights. Some women are convinced that they have a greater risk of cancer from radiation than men. In this light it is quite understandable that many women deem utilization of the atom to be life-threatening experimentation on individual citizens without consent--experimentation that willfully causes death, disease and deformity.

From some woman's viewpoint, scientists, who are predominantly male, divorce rationality from emotion. They calculate numbers of deaths from a nuclear meltdown without relating death to people--just a numbers game. Arguments that utilization of the friendly atom can help us industrially provide a bigger pie in which women will share are looked upon as a male society's attempt to share a carcinogenic pie.

According to a recent article in SAVVY, a magazine for executive women, the atom has a macho image. The atom is diagnosed as a cultural and political problem--a reflection of the values of a male-dominated society. To some, the atom's power crystallizes visions of social and political change. The atom's use in nuclear power and nuclear medicine is identified with centralization of political, and economic power with hierarchial concentration of power in the hands of a few.

Whether it is nuclear or chemical waste, the debate provides a forum for marginal groups to use the political process to voice their grievances. Although much of the debate focuses on technical issues of health and safety, the most active women's groups are conducting a moral crusade. Make no mistake; women, as a constituency, are critically important. For example, the waste issue characterizes phobic thinking--the kind of fear that keeps 15 percent of Americans off airplanes and 10 million Americans off bridges, super-highways, elevators and shopping centers.

The Wrong Medicine

As members of the technical community, we were late starters in trying to get the true facts to the public. Recently, many people have spared no effort to subvert public thinking on waste matters. As technical experts, we should have studied the situation, delineated the problem areas, found possible and alternate solutions and then proceeded.

We also failed to remember that today's woman like everyone else is exposed to a tremendous amount of information. She must be selective about what she reads and hears because it is impossible to see and hear everything. But most women feel that they should explore all sides of an issue before forming an opinion.

Facts are important, but so many facts are floating around that today's woman has trouble placing them in the context of the entire issue. She must be cautious not to jump too quickly on the bandwagon; yet, she feels that she cannot sit back and leave the decision making to experts.

Our professional goal was clear. We wanted to be viewed by the general public as a credible source.

But, that is not an easy task since we all live in Marshall McLuhan's "Global Village" and Chicken Little runs through the square twice daily. A pop phrase rooted in some private discontent or a simple-minded panacea for complex problems is echoed throughout the land on the evening news. Instant living color reveals to 50 million Americans hundreds of protestors carrying signs on the site of a waste dump.

We were trying to reach women who in some cases believed that technology had in fact created the very real malaises that confront them including boredom, discontent on the job, sassy kids, slaughter on the highways, pollution and disfigurement of the land, crime in the suburbs, corruption in high places, machines that won't work, materialism, crowded cities, mechanized cold-blooded war, fading national goals, general ambiguity, and future shock itself.

In the midst of all this raucous scapegoating and righteous breast beating should have come our clear and rational voice, instead we created mass confusion.

The Communication Trap

Let me draw an analogy used by Larry Heller in a recent issue of THE TOASTMASTER. Theodore Berhune seriously tried to make himself clear. If effort guaranteed clarity, Berhune would be the clearest man on earth. Each morning Berhune would tell his wife, Gloria, what he wanted for breakfast. "Two medium-sized eggs, sunnyside up, two pieces of whole wheat toast, medium light; a small glass of orange juice; and mildly strong coffee." The Berhune marriage began to deteriorate even though this very specific order contained clarity in every syllable.

Why? "Sunnyside up" is problematic. "Whole wheat bread" comes in various brands and sizes not to mention textures and compositions. "Medium light" might be burned to another. "A small glass of orange juice" to a giant would be something else to a dwarf, especially if some seeds had not been removed. "Mildly strong coffee" as Mrs. Berhune pointed out to Mr. Berhune describes most of the coffee drunk in America.

The more Mr. Berhune strove to be clear, the more obscure his wife said he was. When his directions exceeded twenty type-written pages with footnotes, the frayed fabric of marriage parted like a shirt washed too many times. Sound familiar? That's the public's view of the waste disposal question.

The Image Problem

Other examples of the communication trap abound. The image presented can be very important. The expert who attempted to convince a local American Association of University Women (AAUW) Chapter that nuclear energy is the safest bet for the future was a dismal failure because his red blazer stirred his audience's emotion and heightened the tension.

The woman's club speaker drew only negative responses as he peeked over the top of a tall lighted lecturn to address his audience.

Both of these speakers blocked their own messages by giving negative or contradictory signals about themselves or their topics. Studies show that silent signals given to others reveal far more than our words. These signals will be open ended and involuntary and lack the sophistication of carefully chosen words. Doreen Anderson pointed out in a recent TOASTMASTER article, that no one would carry a sign saying, "I'm nervous or depressed." but we often shout it by our mannerisms, the colors and designs we wear or the distance we maintain. By constantly shifting hands and feet, smiling too often without reason, speaking too loudly, wearing too many colors or rushing into the speech before pausing to let the audience look you over, you indicate that you are not sure of yourself. You lose credibility and contribute to the confusion.

A Seller's Guide

If you are presenting a new concept or idea about waste, your idea must possess the following five qualities before it can be adopted:

- o It must seem tangibly better than previous solutions to a problem.
- o It must be of an order of simplicity that a potential adopter can understand.
- o It must be compatible with nonvariable factors in an environment.
- o Potential adopters must be able to hold a trial run to test the utility of the idea.
- o The results must be observable, mentally, physically.

Admittedly all five criteria are in the eye of the beholder, but we can enhance our chances by using dramatic impact to enhance these qualities.

- o Create something for the eyes. Only visually can we accurately display meaningful relationships of size, distance, space or movement.
- o Develop something for the ears. Tone of voice, dramatic delivery or music.
- o Entice the imagination. Conger up familiar personal pictures with which the listener can identify. They serve as bridges to new meaning.
- o Use humor to capture or focus attention.
- o Remember contrast because we attend to the unexpected when it is contrasted to that which we expect.
- o Don't forget to involve the listener. Because we really have little to say to other persons unless we are responding to their underlying personal needs and interests.

Lesson from the Opposition

In many cases the public fails to grasp our message because they are not listening to the message presented. They are listening instead to their folk heroes, t.v. and movie idols, or investigative reporters. According to Michael G. Turner, Executive Vice President and Director of the Southern Operations of the advertising company Olgive, Mayfair Inc., the public does listen to the thrice divorced Hollywood star who gives advice on marriage during a t.v. talk show, or the late-night t.v. host who cracks jokes about Three Mile Island, or investigative reporter who does exposés about institutions already out of public favor. The public not only listens, but they cheer.

The anti-nuclear folks are well aware of how to use the media against our industry. One such group is exploring the use of cable t.v. for campaign spots and is aiming to appeal to blacks and minorities with its trust message. Questions asked of citizens included, "Do you know nuclear wastes are going to go past your front door?" "Do you trust the fire department to handle the cleanups?"

Another key aim of the anti-nuclear folk is to cultivate a network of artists, singers, or poets that remain on call for fund raising benefits, campaigns and rallies. A group called Song Writers for Freedom and Struggle will be used as a springboard for an expanded program. The anti-nuclear coalition wants to put out a listing of sympathetic artists. The immediate aim is to line up artistic support for the UN session to become a cultural happening.

A Winning Approach

In order to compete we now realize our message must follow some key principles.

- o Focus the issue. Uncomplicate it. Put it in perspective.
- o Appeal to the public self-interest.
- o Be candid and show balance.
- o Get a head start on problems.
- o Multiply your communication path.
- o Know who your target is and why.

Try a little showmanship in your next presentation. At first you may feel embarrassed, but your audiences will love you.

Conclusion

In summary, negative public reaction and fears are very much like an allergic reaction or contagious diseases. In some cases treatment similar to vaccination might be helpful. We should try to feed to the public small doses of correct information in attractive forms. Initiate the syndromes by using anti-headlines as eye catchers but followed by the correct information of facts. Look at the techniques advertising agencies use to launch new products and ideas. The anti's use these same techniques. Our failure to do so means the eventual elimination of many major industries in the United States. If a nation thinks it can exist without a particular technology, it may try to avoid facing the fear however irrational or expensive the fear may be. This seems to be the case for nuclear power at the present time.