

William E. Davis - Nuclear Public Information and Participation

Remarks to Western Interstate Nuclear Board, Tucson, Arizona, March 25, 1975. In a matter quite unrelated to the topic of "Nuclear Public Information and Participation, "2-1/2 years ago I had the opportunity to get a first-hand assessment of public opinion when I was the Democratic candidate for the Idaho seat in the U. S. Senate. Obviously, I didn't win. But I did have the benefit of that rich and rewarding experience of personally meeting and talking to some 100,000 Idahoans in virtually every community and from every walk of life in our state.

A state-wide campaign takes one down into the mines, high into the logging areas, out on the streets, and into the churches and bars-- literally everywhere there are people. And I discovered that you don't spend as much time talking as you do listening. These are the

working people, the voters of our society -- those beset by all the anxieties and skepticism as well as all the hopes and idealism of our American communities and states.

From this sojourn away from the ivied halls of learning, I gathered new insights into how isolated we on the college campus sometimes become. Banded together in close-knit, comparatively well-paid, highly educated campus communities, our membership also includes a highly-opinionated collection of experts on every subject known to God and man (and perhaps a few that aren't). And, too often, we end up talking to one another.

I sometimes wonder if this isn't also true of the even more specialized field of science where often brilliant, highly-educated, highly-opinionated men and women dream dreams and envision visions that leap into the future --sometimes insensitive to the ever-widening gap developing between their knowledge and confidence and the fears and lack of understanding of that other public, namely the rest of us in that non-scientific society. "Insensitive" may be the wrong word, because sometimes I have detected attitudes on the part of scientists that border on downright arrogance -- a manifold intolerance and disgust when the man-in-the-street or on the farm is hesitant or reluctant in supporting the grand designs -- attributing his attitudes to ignorance rather than to lack of enlightenment or indeed any responsibility on the part of scientists to educate, inform, and lead.

My electioneering experiences were still fresh in my mind when in late September, 1974, the Governor of Idaho, Cecil D. Andrus, appointed me to chair what he designated as a Blue Ribbon Study Commission charged with the responsibility of reviewing the Atomic Energy Commission's Draft Environmental Impact Statement on the handling of commercial radioactive wastes (Code name --WASH 1539). The Governor said, "There are many questions to be answered, but the most important is that of what is best for the State of Idaho."

Being imbued with the philosophy that the way to find out what the people of Idaho think is best for the state of Idaho is to get out and among 'em, I was troubled by the short time-frame set forth for our study. Our report was to be submitted by November 4th, which allowed roughly five weeks to organize the committee, educate the public as to the nature of the problem, and elicit a response.

Nonetheless, the Governor's Committee (which included members representing a variety of interests and occupations and both scientists and non-scientists) proceeded to set up a series of meetings and hearings throughout the state.

Our efforts were greatly assisted by a visit to our state by Dr. Frank Pittman, Director of the Division of Waste Management and Transportation of the U. S. Atomic Energy Commission, who spent a day with the Governor's Committee. Further, on its own initiative, the Eastern Idaho Nuclear Council conducted two open forums on the topic of disposal and storage of atomic waste. These meetings were held in Idaho Falls and Pocatello. Emphasis was on acquainting the public with processing and storage techniques utilized at the Idaho Nuclear Engineering Laboratory. Officials at the INEL site also arranged for tours of their storage facilities for interested parties.

With little time for advanced-announcements or arrangements, the Committee scheduled six hearings throughout the state in the cities of Lewiston, Moscow, Twin Falls, Boise, Idaho Falls and Pocatello. While attendance at some of the hearings was sparse, they did provide an opportunity for public response. And in numerous cases, representatives appeared to offer testimony on behalf of large and influential organizations in our state.

In addition, many persons took this opportunity to communicate their concerns by writing directly to the Committee or the Governor. Further, the hearings and deliberations of the Committee received wide-spread media coverage.

The responses in the meetings and written statements were revealing -- not only in the attitudes toward the specific problem of atomic waste disposal, but also in the broader concerns expressed by a public that again and again stressed that it was uninformed.

WASH 1539 listed as one of the high priorities in the criteria set forth for the siting of an interim disposal center the matter of local acceptance.

I am sure that "local acceptance" as a high priority would register with most concerned Idahoans. Idaho AEC officials who attended several of the Committee's open hearings were appalled at what they regarded as the lack of knowledge of the waste storage methods, the misinformation, and the superstition. There seemed to be a feeling that if the public only knew of the safety of these processes and techniques, people would not be so fearful and concerned -- even downright terrified in some cases.

To the farmer or the man on the street, the whole subject of atomic or nuclear power often is not just a mystery, but also a mystique. He has been conditioned to the horror stories of the atomic bomb, radioactive fallout, and the after-effects of radiation either by direct exposure or entry into the life cycle through food and water. And often, these persons are flat-out scared.

As viewed by one person who described herself as an elderly lady from Ashton: "People are so uninformed and could care less if a dollar is involved. Please try to stop this horrible thing they are doing to our state."

Not only lack of information, but what was regarded as deliberate withholding of information or mis-information typified the concern of many respondents.

For example, when told that the processes and sites for the handling and storage of atomic waste are safe, the suspicious Idahoan is apt to reply, "I've been told that before." Many know that there were leaks at the site at Hanford. Many also are aware

that at INEL the waste stored before 1969 now has to be dug up and re-processed and re-stored.

Robert A. Erkins, President of Thousand Springs Trout Farms, Inc., Buhl, Idaho, was one such outspoken critic of past practices in dealing with the public, hammering away on the theme: "It is not a good policy to place one's outhouse over the family well."

Referring to correspondence with the Idaho Governor in September, 1969 (in which Erkins had drawn attention to serious problems in the burial of atomic waste), Erkins states:

At the time, the officials of the AEC denied that there was any problem in their storage methods. They held fast to this position until a previously suppressed report...was at last made public...

Now the AEC officials admit that the storage methods of the 1960's of which I complained were in fact wrong. They are now trying to correct this by carefully digging up some 20 acres of waste burial grounds and placing the atomic material in metal containers under better storage conditions.

In another letter, Erkins goes on to say:

On my recent visit to the AEC burial site I was told by one of the officials that there was concern as to whether they should endanger the lives of men in digging up the cemetery area or whether they would be better off just leaving it there and hoping that nothing in the future would happen. With honest statements like these being made by the AEC officials I find it difficult in any way to commend their predecessors for doing a good job in waste storage. They simply were not doing a good job, but in reality were lying to the public telling them they were. I feel the public has had enough of this bureaucratic and political skulduggery and that they do not want any more of it.

Other comments along this line include a statement by the Idaho Grower Shippers Association, Inc., whose membership encompasses the activities of those who introduce more than 95% of the fresh and

processed potatoes from Idaho into the channels of interstate commerce. The IGSA vigorously opposed locating an interim disposal site in Idaho and cited several references to the effect that "there is ample evidence to the contrary of the A.E.C. position on the safety of nuclear waste. The question, therefore, becomes one of being mis-informed rather than un-informed."

In a similar vein, a representative of the Idaho Conservation League stated: "WASH 1539 fairly reeks with optimism and self confidence. Many of the conclusions are based on data generated from selected portions of AEC history plus lots of faith in future technology. If the past record is to be used to generate data for the future decisions and procedures in waste management it is seriously misleading to exclude parts of that record."

The above underscores the suspicion and concern not only for selected or mis-information, but also the wariness by Idahoans about what they haven't been told -- things like that for some twenty years nuclear waste was being shipped to the Idaho INEL site and stored on that locale. Only in the past few years have many discovered that Idaho already is a major interim storage site for large quantities of nuclear waste generated in federal programs elsewhere.

One old timer expressed amazement at the revelation that in 1970 we in Idaho discovered "that what we had thought was an AEC facility.. to invent and test nuclear reactors -- over there near the Craters of the Moon -- was also a burial ground for millions of cubic yards of plutonium-contaminated wastes from an AEC facility over at Rocky Flat, Colorado where A-bomb 'triggers' are manufactured for H-bombs." He closed his remarks by saying: "You fellows with the blue ribbons, see if you can't think up something better."

Stated in other words, a critic of WASH 1539 said: "There seems to be a pattern, established during the hysteria of the cold war period and continuing to the present, of the A.E.C. concealing its activities from the public."

Public confidence was not reinforced when on the day the Governor's Committee made its report, the newspaper headlines in the

area reported: "Radioactive Leak New Factor in Nuclear Storage Controversy." The leak had been made during all of the deliberations between the Committee and AEC officials -- which left a lot of egg on all our faces.

Expressed in varying ways, some of the repeated concerns focused on the citizens' right to know and participate in the far-reaching decisions involved in the problem of atomic waste disposal.

One statement submitted by a concerned Idahoan read:

The citizen's right to know should ...include a time frame that will allow the opportunity to become conversant with the problem and to formulate valid opinions about alternatives. Considering the length of the half-life of plutonium, we have ample time in which to make a decision which is both responsible and as technically sound as we are able to make it. It seems to us to border on irresponsibility -- or arrogance -- to embark on a course of action which is as hastily conceived as this one seems to be.

...This country is now obviously embarked on a program of nuclear power generation, and without proper answers to questions on the disposal of radioactive waste, and especially of that most awesome of elements, plutonium. We believe implicitly that the citizens of this country have every right to insist upon being a part of the decision making process. This right includes the obligation on the part of the experts and the decision makers to provide ample information, and couched in terms the interested citizen can understand. We think experts often forget the truth of the old adage, what you're not up on you're down on.

Note that this writer also referred to a frequent problem in communication, the need to couch the information in terms the interested citizen can understand.

Interestingly, the most frequently cited document in the verbal and written commentaries was an article which appeared in the August, 1974 Reader's Digest by Dennis Farley (condensed from the April '74 Smithsonian), entitled, "The Awesome Problem of Nuclear Wastes."

Written so it was intelligible to the layman, it served to emphasize the necessity of effectively communicating to the general public -- the need to translate technical jargon to terms the layman can define and understand.

This was further spelled out in one written statement in which the author complained about the format of WASH 1539 and said: "In these times of high unemployment I'm sure that the AEC can find people capable of producing a well organized document written in clear, concise, well defined English. For the two million in taxpayer's money that went into the study that's not too much to ask. I hope the AEC is not purposely hiding behind a garble of clauses within clauses, maximum credibles and lowest practical probabilities."

Numerous persons in their letters and at the hearings expressed their gratitude in having had the opportunity to participate and express their views. Many complained that the only AEC hearing scheduled at that time was the November 12th meeting in Germantown, Maryland.

At the Germantown hearing, in my rough estimate, about 100 persons were in attendance, many of whom were AEC officials. One very concerned young man, probably in his twenties, had felt so strongly about the problem that he had hitch-hiked from California to Maryland to give his testimony. Another pleaded the case of all those who had something to say, but because of job obligations and financial barriers of extended travel, found it difficult if not impossible to be in attendance.

Even the subsequent hearing scheduled later in December by the AEC in Salt Lake City received this same criticism. People wondered why the hearings were not conducted in the concerned states (Nevada, Washington, and Idaho, which were considered as the prime sites).

Whatever the difficulties in the short time frame for scheduling, the hearings conducted throughout the state of Idaho by the Governor's Committee and the fact that an attempt was made to get public input was acknowledged favorably and repeatedly. Even then, we still got the comment; "I think your committee has not had enough time to



meet with the public."

Not all of the reaction to the public hearings, however, was favorable. One irate gentleman (who worked at the INEL site) wrote: "As a citizen of Idaho, I question the expenditure of funds to stage the series of meetings." Alleging that the Committee already had its mind made up, he went on to state: "The situation could be compared to a court making a decision and then presenting the case to the jury."

He took issue with what he termed "ridiculous statements of members of the public," and said, "I believe that a majority of the people of Idaho would be willing to accept the interim storage facility if they knew the facts concerning it, and the consequences of not developing nuclear power."

Another writer of a similar opinion protested that the subject had not been accurately and adequately presented to the public by the Governor's Committee, and stipulated that it was the duty of the Blue Ribbon Study Commission to educate the public in keeping with the AED's assurance that all was well.

In yet another letter, a citizen commented on a meeting, saying: "It seemed to me that most of the audience was hostile toward the speakers (AEC officials), and that they left with the same preconceived notions that they arrived with. I doubt the value of meetings where one side must substantiate their statements and the other side is free to indulge in baseless speculation." He ended with a P.S.: "I have just watched the 10:30 news and see that my hopes for an objective study are completely in vain...I would hesitate to call the chairman of the AEC a liar regarding permanent storage, but I guess when your interest is in appeasing the masses you have to take some liberties."

In these responses, the Committee was taken to task for not endorsing and supporting the AEC point of view, and characterized as a big disappointment because it did not educate and reassure the public.

That much can or might be done in informing the public is attested to in the attitude expressed by numerous civic and professional groups from Idaho Falls, who in the forums and meetings and written statements expressed their confidence in the management and safety techniques at the INEL site and a desire to expand the activities to include the interim storage of commercial radioactive waste. This kind of endorsement was expressed by the Mayor and City Council of Idaho Falls and the Greater Idaho Falls Chamber of Commerce, as well as by various labor unions in the area whose workmen had been employed on the site.

The Greater Idaho Falls Chamber of Commerce statement was typical of this attitude:

The Greater Idaho Falls Chamber of Commerce has studied the proposal and has passed a resolution urging the USAEC to move ahead with plans to make Idaho and more specifically INEL the site for interim storage. Let me assure you we have looked into the matter very closely before coming up with the decision. We have listened to one of the State's most outspoken critics of waste storage, Mr. Robert Erkins. We have also listened to expert AEC personnel explain past, present, and future practices regarding Waste storage. We have toured the current waste facility, as have you (the Governor), and we have come away assured in our minds that this is not a bad project for Idaho.

Economically it is a wise decision. It is also a wise decision if this Nation is to be energy self-sufficient by 1980.

Judging from such statements as the above, those closest to the scene and the most knowledgeable (as well as those who also had the most to gain by direct economic benefit) supported the development of the commercial waste storage program in Idaho.

Those most vocal in their opposition included agricultural groups-- such as the Idaho Grower Shippers Association, Inc., Idaho Wheat Commission, Idaho Potato Commission -- and such other organizations as the Magic Valley Association of Government, Idaho League of Women

Voters, Shoshone-Bannock Indian Tribes, and various environmental groups. Of the statements from individual citizens, overwhelmingly the expression was against the expanded storage concept in Idaho.

Clearly, despite some Herculean recent efforts on the part of AEC officials in the last few years to remove the cloak of secrecy from nuclear operations, there remained a gap as wide as the Snake River Canyon between scientific expertise and confidence and public understanding and acceptance. Much yet remains to be done.

I've spent a lot of time defining some of the problems as I encountered them in two months of intensive study and attempts to elicit public reaction, often in highly emotional settings. I openly was accused of selling out the public welfare by trying to interpret and clarify the AEC point of view on one hand, and accused of selling out the national welfare and economic benefits to the state by trying to appease the masses. And what could one expect from a woolly-headed university president?

I was reminded of the old story of the beleaguered football coach who the night before the big game wandered into an obscure bar. Immediately, he was recognized by a drunk who couldn't pass up the opportunity to enlighten the coach. The drunk proclaimed proudly that he had had just the defense that would shut out the adversary. The desperate coach listened eagerly as the drunk drew diagrams on a soggy napkin and asserted the merits of an eight man line, three line-backers, and a four-deep secondary.

"But," protested the coach, "you've got 15 defensive men on the field!"

"I've given you the perfect defense," the drunk stated haughtily. "But you're the expert. You work out the details."

As many a coach has learned, in coaching football, there are no experts, just varying degrees of ignorance.

I don't pose as any expert -- not in football, nuclear energy, or molding public opinion.

I do have a few modest and humble suggestion.

Scientists (as with others in tight-knit, highly specialized professional areas) must find ways of avoiding the syndrome of talking only to one another. This involves bringing the laymen along with them as the technology and attendant problems evolve. Candid, open, and honest assessments of both sides of an issue are necessary if the public can meaningfully weigh the risks versus the rewards before policy becomes a reality.

Decisions of the magnitude encountered in not just the nuclear field but the broader range of the total energy problem must be shared if there is to be public understanding and support.

Closer attention should be given to documents and public statements to insure that they are couched in terms translatable to the layman. This may be difficult, but not impossible.

The public forums and hearings related to the specific topic of nuclear waste were, in my opinion, highly educational. Proponents of positions on all ranges of the emotional and technical spectrum learned something from these sessions. Whenever possible, meetings on similar topics would be meaningful. And as expressed repeatedly, they should be held where the average but concerned citizen can participate free from the financial barriers involved in extensive travel.

The sick or dying patient welcomes the physician's dosage of medicine when it is explained in terms of how it will help him. Even the faith of a child, however, balks at the bland admonition that it should be taken because it is good for him. Call it bedside manner, but the public seeks to know why something is good for 'em.

Finally, as an educator, I would hope that we could put the romance back into science. Perhaps it is the realization that after the furor of Sputnik we at last succeeded in putting a man on the moon, or perhaps it is the upheaval accompanying the transition from defense-oriented scientific industry to our domestic and international challenges in other technical fields -- but even a casual look at enrollment trends in such former star-studded areas as physics and engineering is a cause

for concern. We need to identify the new and continuing challenges of technology and science and encourage those fresh apprenticeships in learning that will evolve into responsible leadership in future years.

Somehow, we must do a better job in getting these messages across on all levels, beginning with the elementary and secondary schools and continuing on into our college classrooms.

Energy, the environment, and such specialized issues as nuclear waste should be continued topics for our debating teams, the seminars, the scientists and non-scientists in our classrooms. We need to permeate our society with understanding of our technical problems and the consequences of selected alternatives to their solution.

I'm convinced that the American citizen expects and demands a voice in the policies affecting his destiny. It should be a top priority that those who have the education and power to enlighten and lead do all they can to see that this is an informed and responsible voice. Perhaps this is as great and challenging a mission as the development of technology itself. I don't know, I'm no expert.

But in the words of that great scientist and philosopher Vannevar Bush, "It is the duty of the educated to lead."