

Advances in Social Aspects of Nuclear Waste Management

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This has been wonderful to be here. It has been very nice to have seen what went on these days - The most really new thinking at least as far as I have seen in the nuclear world. It is no longer a sort of religion, it is a beginning of a frank dialogue with society and this is really what I will talk about in the next few minutes.

I would like to talk about a few things. I will start with the two ladders of public involvement to show the things that have evolved around us. We are a part of this evolution, we learn how to evolve. This will be the second part – Learning how to climb those ladders. Then I will give you a simple message, “It takes three to tango.” It takes the public, along with the experts and the decision makers. This is most important.

Now there has been quite an evolution, this is beyond what we have heard in the waste management. People are looking at decision making especially experts in technical projects in a different way. We went from the time where we say, “All we have to do is stand by rights and lead towards that attitude.” It was an attitude that has to go all the way to say, “We’ll make them partners”. This is also what Tom was saying; we have to do all of these things.

This is what is happening over time. It’s being forced upon us in fact, to the expert by society. There is also single ladder for public participation we should make and it’s about policy making. Again, we go to the public right to know, public right to reject, to restrict participation and to finally public participation in the final decision. This is what is happening in fact and what we’ve seen also in the nuclear waste field, in the most successful programs.

Basically, what we’ve seen is that after WWII, the expert and the decision making in the technical field were the same people. Then later on perhaps in the sixties and seventies, the expert in this should make a subtle diverge. But later on, the decision maker was no longer the single party either, or the single man, it is really more of a collective action. We see it, this collective action is now, and we are the baby steps (to use the words of Jeffrey Simpson) of what is going on.

One of the reasons why this collective action is brought about is really this new electronic age. We see this open sourcing, the Microsoft that asks that open sources opens its software. IBM opens its hardware. Wikipedia people are working together of producing the new encyclopedia to media words. Everybody’s laptop is basically its own press room or business room. So basically people are working together, new economy is working. The new form of Democracy which is more participatory, we are just at the beginning of it.

Collective action is also brought by other major crisis to which we are a bit witnessed like; you know the _____ continue the blood transfusions.

Issues arise in this area of competence, credibility, and familiarity control. Familiarity controls are two fundamental concepts. Safety is about being free, feeling free and so on, but you can only feel free if you have some familiarity about this technology or this issue and if you have some control over it. These are two fundamental concepts that we have to keep in mind.

Collective action, as I said, is because globalization is basically broken all of those walls that kept us apart, that kept the people apart. In fact people have been apart, the communities have been apart and these people do have their voice heard. I like the quote which says, "If globalization were a sport, it would be the hundred meter dash, over and over." No matter how many times you win you have to race again the next day. We have to be prepared for continuing questioning and you can only do this, if we do progress collectively.

Collective action is also the basis of modern concept of governments. At the OECD we have handbooks on this and from time to time we have important statements and we have guiding principles. I suggest you check out the OECD website.

Who is the OECD? The OECD is thirty advanced countries advanced marketed democracies. To be part of the OECD, there is also democratic type of criteria. It's not only about economies; it's how democracy is run. Basically, you work on the subject of economic growth improving human capital social equation, contribute to serving globalization. We talk about governments.

Now in the worst budget areas, we have been climbing those ladders. I just want to give you a quick overview of the history of all of this. In 1995 there was a workshop and the public relations people were not the technical people. The technical people did not participate in that workshop; there was a refusal to be part of that workshop. They were talking about it with politicians and they said, social and technical issues are really most important, public involvement is most important, the public deserves our respect. This is an interesting sentence. We cannot expect the trust if we do not trust them. Now trust has a similar definition in the English language. It means, "A certain degree of control". This means if you have trusted if you are willing to be trusted, there's this sharing of control, that's the only way trust can be taking place.

So, in the mid nineties there was public relation people. The technical people said, "Okay, let's look at this; we'll look at the ethical parts of geological disposal". We recognized at that time, that we introduced some concepts like _____. There's a lot of adaptation, it's not one decision. Even though it's called a collective opinion vs. an elective opinion of technicians, society was not really involved in this.

Through the mid-nineties, it was basically the public relation people that looked at this. People were told societal aspects are important but still a, "we versus them" attitude prevailed. Then there was really to the back here first here in Canada, where the program failed and there was even the word used of social safety as I recall in this review, and really that sounded very, very big alarm bells and sends a message that things have to change.

In 2000, we did a study and most organizations saw it as their duty to reach out. It is interesting that most organizations were not obliged to talk to people, this is really policy. The institution was set up to not necessarily have to talk to people. They recognize that they need to do this, beyond the mandate. What we are saying is not the technical solutions we are looking for, these are mechanisms for public acceptance.

In the year 2000, the stake hold allegiance became part of the technical communities' social strategies to reach out and to basically question themselves as well. We had to learn basically by going into the field. We started the following circle of confidence, which has dialogues in various countries like Finland, Canada, Belgium, Germany, Spain, Hungary and France is next.

This forum is first and foremost a learning organization. We seek to improve ourselves that is the first thing. We try to validate most of what we find also with the help of academic experts. We also try to consolidate the trust for these lessons to governments but also to all interested

people. There is legislation in place now; there are requirements at the national level that you really have to involve people. To involve the so called “interested parties” or stakeholders.

Some of these frameworks are very new. They provide legitimacy, but they have to adapt them to the specific situation so that they are also applicable in a meaningful way. In fact, forums of participial or democracy are rather new.

This is one of the challenges to address, but with participation there are also other opportunities; more clarity in their roles, a change of mentality which is most important, new skills and resources. And those are partnership arrangements -these are fundamental. In some countries where these partnership arrangements have taken place, the programs are moved.

Three aspects that paramount the decision making; process, structure, and behavior. The process is basic decision implants from making decisions. They should be visible, iterative, and flexible, they should facilitate the collective involvement and learning in fact, structures the roles - who is doing what, and what are independencies and behavior. Behavior is fundamental; you have to demonstrate core body. What one has to be respectful of both process and structure.

Three pillars of trust: safety, participation, and local development. As I mentioned, safety is very much about being able to function and is also about familiarity control. This can only be obtained by participation. So participation is really a part of the equation around safety.

Here are some points about this: It is important to involve local communities. It will allow for better in fact even safety by itself. Participation is an effective way to involve the local politicians, these are most important people. They are not just the people in general. You have to take into account the structure of decision making locally. Participation to allow a different understanding of what is good for the community, the interest of the community.

It goes beyond the times of the economic packages because these communities have to work with theses facilities, live with theses facilities for at least a hundred years. Living with this means that perhaps we could do other things that have just ugly buildings for instance.

Local development is about standard of living, it's about feeling good about community. You can only find it if you talk to this community, to see if basically you are partners.

In conclusions I will indicate that there are basically four conclusions. I found that during these days, I especially resonated with Laura Formusa, her speech yesterday. What we are saying is valuable for any other endeavor. Especially Mrs. Formusa had to build these power lines and I have some of her quotes in my overheads. First of all, is the technical soundness and the procedure of fairness are of an incomparable importance. Procedure and fairness.

Stakeholders must have access to understandable information about what is happening and why. Why here, why now. Stakeholder confidence never established once and for all. I mean it has to be gained and earned on a continual basis. There are no short-cuts to qualities you're making. There is no skipping the hoops. This is Laura Formusa's quote from yesterday. She said, “If you skip the hoops, that is a recipe for disaster”.

We see that a more complex interaction is taking place nowadays at the national regional and especially local levels. The interaction between the local regional levels is especially important because in many cases, the regional levels have been against local levels. It was an agreement between the national and the local, but not between the regional and the local. There are direct programs in many, many countries. There's a more realistic understanding of decision making in steps. This is adaptive phase management here involving a range of factors this is strongly emerging, it is now a reality, in fact. Government institutions are adapting we see in that _____ here, we see the government of Canada, we see other governments.

While all of these lessons have been learned, some other problems are being made. I remind you of Finland, I remind you of Sweden. France, France is coming along very strongly; in fact they have a site. It is as I said, "It takes three to tango" and to again to quote Laura Formosa, "To consult is not negotiable". The time is now to build those relationships and I would add that collective action is here to stay and we are only at the beginning of it.

Questions and Answers

Guest: “I hear a very lot about commitment to consultation, multi-lateralism and consensus and that’s all good. But the implication, the applied message in that, is that all participants hold a veto, or have a break pedal they can step on. Consequently, action and tangibles are delayed interminably. What is your most important bricks and mortar steel deliverable in the next five, seven or eight years. (What? And by when?)”

Kathryn Shaver: “I talked earlier today about one of the features of the plan as having flexibility and pace and manner of implementation. We specifically did not set a specific year by which we would chose a site, or assign specific milestones and that’s for a very good reason. You need to take the time to work through the research, the demonstration, work through communities, build their capacity in order to work to find a willing informed site community. We have some experience to look at from other countries such as Finland and Sweden and we know that this isn’t a short process and it’s not one that you can predict. Finding a willing informed host community can take ten years. It may go faster than that, it may take more time. What we will come up with in our five year plan that we issue in April, are specific milestones, activities, so that we are in a state of readiness to sustain momentum on implementation. We are doing the work on the technical side, understanding the technical criteria, the social aspects, but it’s not possible to set in stone specific years by which you will commit to have a community and the drilling and building your underground facility.

We have a lot of specific deliverables and important one in the next few years, which was collaboratively designing the site selection process. We’re not going to design this siting process which is so key to success, at our own desks with the NWMO. It has to be part of a public dialogue designed cooperatively, getting validation that it is procedural fairness, before we launch a siting process. We will be designing that process in the next few years; we will be developing the educational capacity within communities so that we will have a successful initiation of that process.”

Dr. Claudio Pescatore: “I am not sure I heard the question very well, but I heard the word “veto” there and so I would like to comment on that. We found that in countries there were communities that had veto power; this is the case of Finland.

Sweden and Belgium have a sort of informal veto power. A veto power or an informal veto power is something very helpful to make things move forward because people feel that at one point they can retreat. Of course, when you look for a site, you have to look of more than one community. As for timing, the country was respecting the initial deadlines. It is Finland in fact and is the only country that has not fallen back. They decided in 1980, to have a program that will lead them to where they are now. The siting of the repository was the year 2000. They gave themselves twenty years (this is Finland). The others have been slower than that. I’m not sure about in the future, because the examples already exist of things working. In a few years, we’ll have Finland, we’ll most certainly have Sweden and most likely we’ll have a strong leap forward by France. But we go faster elsewhere. This was the additional timing of Finland. It was 20 years to go, to have a site that the community would accept, the parliament would accept and the nation would accept.

Tom addressed this to some extent: It's not good, in general if the single agency is sent out by itself to look out for a site. There should be a system and policy to help find a site. When you go to a mayor, you can't just say, "I'm the industry, I'd like to implant myself here in the battle _____ nuclear waste repository, by the way" There should be a background assessment of countries the size of this. The parliament has decided this, we have the legitimate (by the way there is a regulator. You can ask this guy the way he's going to check on us), so the regulator is to be visible. This is something that we tend to forget – it is a fundamental thing: the regulator has to be visible."

Tom Isaac: "just want to make a quick point about the experience in the U.S. The United States Regional Policy was very descriptive about what had to be done, by what dates. It included for example, signed contracts with all the utilities that generate electricity from nuclear power. It said in return, for a fee, their waste would begin to be taken from the site to a repository no later than 1998.

That date is long past where we are no where near having a repository. All of the utilities are suing the government. There are findings for billions of dollars, it's not clear where that money is going to come from. So the idea, it's a little different than building something that you've built fifty of and now you want to build a fifty-first, and it's on a schedule. You really need to understand the unique textures of being successful in this kind of a business.

I think though, that one phrase I would leave you with that was prominent in the Yuka Mountain program is, "There is never enough time to do it right, there was always enough time to do it over"

Guest: "One thing that has not been mentioned here and it's real. We have two realities that have not been mentioned. Especially here and in the whole conference; there is an anti-nuclear movement out there. Their mission, their dedication, is to eradicate nuclear technology. Nuclear waste, believe it or not, is one of the big issues that they use to eradicate this technology. Now, we talk about coming to willing communities and talking with them, it's all very nice, but you know who else comes there? These anti-nuclear people and spread all kinds of information. When you try to question, analyze, present facts, they turn and they call you liars. I've heard it, they've said it to me, and they've said it to other qualified people. So, that's what is going on out there and I am sure you know about this, but nobody is mentioning this. It exists and so even though you work hard, and you develop a willing community, you find out that these other people come and poison it and then you're out looking for another community.

It's a long, hard battle and yet we have to recognize and write down and say that there is an anti-nuclear movement. It's Greenpeace, it's Energy Probe. They've been at it now for fifty years, they're still there and that's one of the challenges we have and it's real and we haven't mentioned that they exist.

The other thing that nobody has mentioned and is real and exists is natural radioactivity - and it's all over the place. I'm sure we're going to find the place and we're going to put it in the ground. Nobody seems to mention that there's radiation out there that's coming from everywhere. People are exposed to it naturally and they adapted to it. We're talking as if we're creating a waste that is something unique and is a challenge. It's really a social issue because (and that's the thing we have to talk about).

Nobody has said anything about the existence of natural radioactivity and the fact that humans live with it continually since the beginning. The amount of the radiation (the doses)

point quite significant, compared to what we're managing. We're trying to manage with our used fuel. Those are the two comments perhaps you can address them - The Anti-nuclear movement and the natural radioactivity."

Kathryn Shaver: "Jeffrey points out that this thing can be a very polarizing issue. We've seen that over the years. When we started out with our work a few years ago, we wanted to avoid that situation where people would come in present positions, create a destructive atmosphere, not work with one another, because industry tended to come at it with one perspective, other groups from another.

From the very start, we took the approach that the most enriched process is one where everyone is around the table. We're continuing to have round tables with multiple perspectives so that people will actually talk to each other, learn from different perspective and perhaps on some aspect of the program, reach some agreement in common ground. We feel that the process to date has actually been enriched by having multiple perspectives including Greenpeace and Nuclear Waste Watch and all of these others. We hope that they will continue to work with us, because having everyone around the table at the same time, we start to appreciate different views."

Dr. Claudio Pescatore: "Let me give you one answer that I got once, and then I will explain what I mean. I once asked the mayor of Oskarsham, "How about the Greenpeace", because Oskarsham was very active and is still very active and perhaps they are getting their repository, they certainly have gotten the encapsulation facility for the waste. They told me that no, organizations are welcome to come, but they have to participate through the process that the community set up. They have a local community strategy and network and working groups and that would be part of that. Then it is the voice of the community who will report and it turned out in fact that perhaps the more _____ ones did not wish to work with the community. This put them outside, reduced their credibility enormously. The same has been happening in Finland.

Probably to some extent, the same is happening in France, but there is a local information committee, there are some rules. So there must be a process by which people can come to certain places where they can express themselves. This process will help in fact help to make the difference between _____. That is most important. As for the national activity, it is true, it exists but on the other hand this will be a long, long discussion. This is special waste; there is no other waste in the world that you can not stand close to it. You have to have a meter and a half worth of concrete to protect yourself. It's worth talking about."

Tom Isaac: "I would just say that I'm sorry Jerry, I intended to talk about the fact that values were in conflict. I thought I mentioned in that indeed, there are parts of the environmental community who do see this as the Achilles' heel of the program. They aren't going to go away, and you will have to deal with them. I think that the way that both Kathryn and Claudio have talked about, not trying to pre-empt them but to co-op them into participating in a legitimate process, is a responsible thing. Some of them won't, but they have their own agenda, and they believe in their agenda every bit as much as we believe in our agenda.

On the radioactivity, I still remember. I had the privilege of taking to the Canadian Nuclear Society annual meeting three years ago, and you asked me the exact same question. I want to

give you accolades for your consistency. (laughter) I think with regard to the issue though, I would have to agree once again with Claudio, that there's a very different issue. I don't think in general it works to say, "You shouldn't worry so much about us, because someone else is even worse." I don't think that kind of think kind of works, I really think that you've got to be responsible for the issues that you have and certainly high level radioactive waste is very different than natural background radiation. It does require very careful attention. So do other things that don't get that attention, like chemicals, but nonetheless we can't use that for as a reason for obviating our responsibilities."