The Public's Perspective on Conservation and Indoor Air Quality

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For the rest of the conference we are moving away from some of the technical aspects of the pollutants that we have identified earlier into the policy issues that Dr. Meyer started with this morning. In an effort to make that transition a little smoother I would like to take a little bit of time to share some of the things that I have learned in teaching the indoor air quality classes for the Energy Extension Service. For roughly the last three years, the Energy Extension Service in Washington has been offering indoor air quality classes to the general public. By class, I mean an hour-and-a-half slide program taken out into the community and open to the public where people can come in, get information, and ask questions. We have done approximately, since May of 1982, thirty-one of those programs, and we have seen just about 1,000 people in those particular programs. What I would like to convey is some of what the public, meaning the homeowners, the people who are affected by the pollutants, are feeling, so that we can put that together with the other knowledge that we are receiving and, hopefully, more completely attack the problem.

The first thing I would like to do is just talk a little bit about the 1,000 people that have been coming to these classes. Identified most easily are two groups. One is a crowd of curious people who have just read or heard something, and so they are interested in that way. Mixed almost evenly with them is a crowd of very concerned people who also have read or heard something, but think they have a particular problem, or their neighbor has a problem. Their motivation is both information seeking and concern about a specific problem they live with.

We are dealing with a public who has very limited information. As we have realized very early on in this conference, we, <u>as professionals</u>, have a somewhat limited amount of information on which to base decisions in regards to the indoor air quality issue, so we can imagine what the general public has, just coming fresh out of their homes or off the street. As an illustration of that, most of the people with whom I interact identify one of two major sources as their information source about indoor air quality. Those two sources are: 1)word of mouth, which in the Northwest is primarily related to utility programs, or 2) the media. The first source sometimes comes to them by chance. For example, perhaps their neighbor's house was weatherized under a BPA or light utility program, but their house was not because they had a basement or private well. All they see immediately is that there was a distinction made because there house might have a problem. They are not sure whether that problem really exists. They are not sure whether it is something they should be worried

about or not. That kind of word of mouth has spread throughout the western part of Washington state, where most of those programs have taken place.

I said the second source of their information is the media. It is primarily the print media, as it has dealt more with the problem than television and radio choose to do in their short spots. For an illustration of that I went through our files of articles on indoor air pollution. Without purposely picking the most scary ones or the worst ones, but, in fact, taking a sample by taking all the titles in the file that I could get to quickly, I pulled together some headlines I would like to share. This is not meant as a value judgment on the media, which is also working with a limited amount of information, but as a reminder to us that when Mr. and Mrs. Smith call the building department, or come to WEES, or go to the health organization, this is the kind of information they have, that they are then acting on. These are just a few:

"Ventilate of Suffocate"

"Caution, Energy Efficient Homes are Hazardous to the Health"

"We are Virtually Transforming the
American Home into a Gas Chamber"

"Some Homes that are Energy Efficient Make You Sick"

A very prominent publication, the Reader's Digest headlines:

"The Menace of Indoor Air Pollution".

Regardless of how we feel about the Reader's Digest, it is very well read and so we have to take that as a source of information. Finally, just one more from the Wall Street Journal to kind of cover the spectrum:

"Risk of Cancer from Radon Gas Increases
with Growth of Energy Efficient Homes".

We as professionals involved in indoor air quality or related areas need to realize that this is one of the major sources of public information and continue to be aware of that so we can deal objectively and somewhat sympathetically with the public when they have problems.

The other thing I would like to do is report a sampling of re-occurring questions, as an illustration of where the public, or at least the 1,000 or so people I have worked with, is in terms of different pollutants and so forth. Primarily, the two major things I have identified that people seem to be most worried about are radon and formaldehyde. They are not so concerned about the by-products of combustion and some of the other things. They are concerned a lot about moisture, but primarily because it is a nuisance due to sweating windows, mold, and mildew, rather

than because they recognize health problems. Yet, turning to some of those questions in the radon area, we hear first, and most often, the question: What is radon? Yesterday Dr. Sachs illustrated that we professionals know what the problem is, that there is a problem, we know ways that we can now work toward solutions for the problem. The general public, however, is still at the stage of "what is it?" and "do I need to be worried about it?" They are far behind compared to most of the people in this room.

They seem to be a little farther along regarding formaldehyde. They have read more about formaldehyde, probably because of the ban of urea-formaldehyde foam insulation. They no longer ask what is formaldehyde? They are now to the point where the most commonly asked question in the last six months is: "Can formaldehyde be sealed?" I often hear things like: "I have a particle board subfloor in my new home." "I have kitchen cabinets, everybody tells me particle board is bad. Short of tearing out my cabinets, can I just seal it with something?" Carrying that same theme along, they ask how effective sealing is and how long the sealing will last. That is a difference from the radon question where they are still wondering what the problem is. They are now more in tune that there is a problem and they are looking for solutions.

Those are the two areas that they are most concerned about. I think it is related to what is covered in the print media primarily. After radon and formaldehyde, there are three more commonly re-occurring questions. First, "Where can I get more information or help?" It is very frustrating for the public to read something in their paper that says their house may be a problem and not have anywhere readily identifiable or easily to go to just to get more printed information. The next one that I would identify would be: "How do I know if I have a problem?" "The utility would not weatherize my house" or "my neighbor says I should be concerned about it because I have a slab-on-grade" are two ways this comes out. The final thing they always ask, and they push hard for it, is: "What are safe levels?" We have seen illustrated through the more technical presentations earlier, that is a hard question to answer. There are still studies to be done, but these are the kinds of things that the general public looks for and comes to WEES classes for, and we in some way try to help them.

The other interesting thing that is important to note is that they always ask questions in the context of one pollutant. They do not see it as a polluted environment with many different things contributing. They are primarily worried about radon or formaldehyde or moisture. They do not see them working together. They do not see that one may indicate that there is a problem with others. Generally speaking, they are usually asking and seeking information on one particular pollutant at a time, which most affects them or they feel most likely affects them.

The last thing I would like to share is the four major opinions I

see developing around the indoor air quality question. Again, these are opinions held by the general public who take the time to come out to these classes. They have read; they are interested. Starting at one end, a first opinion, and a very real one in the Northwest, is that there really is not an indoor air quality problem; that is was a conspiracy contrived by the Bonneville Power Administration to cut back on conservation. Now we do not really believe, or we do not want to believe, that that is in fact still an opinion. Yet, in fact, when I go out and talk to the public, that is a real opinion. It is unfortunate for Bonneville and one on which I know they are working and, hopefully, will overcome. We need to be aware that opinion is out there. The next level would be: "Well, it is only a problem in new homes or very energy efficient homes. If I have an older home that I have not weatherstripped, it won't be a problem. So I'm not worried about it." The idea is indoor air quality is a problem only for a very elite part of the population, people who can afford new homes or people who can afford energy efficient homes, which are generally newer. The next level would be: "Well, there is a problem. I'll agree, but the over all solution is easy. We just ventilate." We didn't have this problem before we could build tight houses, so the answer is we have created the problem by building tight houses. Thus, we insist on ventilation, be it air-to-air heat exchangers or having codes ensure operable windows, or whatever; ventilation as a coverall. The final one, at the opposite extreme, would be from that segment of the population who feel that indoor air quality is a very major problem and that no house tightening measure should be taken on or continued at this time until more research is done. We can see this is a wide spectrum of opinion. Again, we have to realize that these opinions are based on the two information sources I mentioned earlier, word of mouth and the media.

In trying to represent the public in this brief time, I would like to say education plays and important role. We can strive to set safety levels, we can strive to set effective ventilation rates, but another important key I believe, and the Energy Extension Service believes, is the theme that Dr. Meyer proposed: individuals need to have enough information to be able to take control of the situation. Then, they can decide whether or not they are going to use particle board, or what kind of particle board to use, or whether there are points where radon might be coming into their basements, and so on. They can begin to control what is happening in their environment, as opposed to depending on a lot of other sources, and do so in conjunction with other sources, such as regulation. As I have been happy to hear stated here many times, I would like to close with this: Education is an effective tool to help mitigate the problem. Albeit, sometimes the answers are elusive, but it should not be overlooked as a mitigation step. It is important to keep the public in mind, and to realize that they are probably steps behind people like those here today.