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Dr. Moniz, thank you for your thought provoking remarks. I would like to emphasize a couple of these that I feel are particularly important.

One, you are speaking about 'expanding the envelope' and 'filling knowledge gaps,' basically expanding our state-of-science as it applies to the environmental restoration industry. But there is another, more basic need. The majority or our operations involve the state-of-practice, and almost anybody you speak with in this business claims that there is a difference between our state-of-practice and state-of-science. You hear very little discussion of why this offset exists. So in addition to advancing the envelope, there is an obligation on all of our parts to make sure that our day-to-day practice gets as close as we can possibly make it to the state-of-science.

As I was thinking about the subject of this panel today, "Alternatives to Excavation and Storage," I concluded that our ability to seek alternatives is dependent on the science support system that exists in the country today. This system has three parts: one, the work force; two, the infrastructure; and three, the science and engineering.

One of our real successes is that we now have a work force that is <u>well-trained</u> in remediation and environmental restoration. We now have a work force that now has <u>extensive experience</u>. Fifteen years ago when so many of the sites that we are dealing with today were being identified, evaluated, and basic strategies for clean up put in place, our work force, although well qualified by academic discipline, did not have the experience with environmental restoration. That has changed. Some of the issues that many of us manage today are a part of the legacy of less mature experience during the early years. To our credit we worked as hard and as fast as we could to meet ambitious and complex restoration goals. We gained experience and knowledge project by project. Today we have an experienced, first-rate work force, and we are starting to ask increasingly relevant and technically sophisticated questions, questions that were not routinely asked fifteen or twenty years ago.

There is another dimension to having a fully qualified and experienced work force that is trained <u>specifically</u> in environmental restoration. I am referring to a loss of diversity of experience.

Many years ago experts working in other industries brought a diversity of experience to the emerging business of site restoration. That was extremely beneficial. Now we may be entering a period where we have too many people with too much remediation-specific training and too much remediation-specific experience. It is unclear how experiences from other industries will transfer in the future.

I am beginning to hear from educators that whereas several years ago there was no problem attracting very bright students into remediation-relevant disciplines, today we are faced with much more competition with other industries (such as hi-tech) for the best students. The glow seems to be off of the environmental industry right now. Or, possibly, we have solved most of the interesting problems. Given the issues being raised at this conference, it is quite clear that there are many, many interesting problems left to solve. One of our collective challenges, therefore, is to once again make the case that environmental remediation and restoration sciences are both technically challenging and important, and that a career in environment is a good career, one that allows us to compete successfully with any other industry sector.

Infrastructure to me is communication and science. Over the last several years there have been any number of initiatives whose objective is to bring technological innovation and the state-of-the-science to operations. Examples include EPA's SITE program and the Environmental Technology Verification Program. There are industry/government partnerships such as the DOE's Innovative Treatment Remediation Demonstration program –ITRD- and EPA's Remediation Technologies Development Forum -RTDF. States have created other programs, for example, the ITRC. These initiatives should and have made it much easier for us to move forward. Of course, over time certain initiatives will prove to be more useful than others. We should be prepared to work with the good ones, modify others through the free exchange of the best ideas, and not stand in the way of consolidation of initiatives as we strive to become more efficient and responsive to site problems.

In summary, our experienced work force and the numerous science-to-practice initiatives convince me that if ever there has been an opportunity to innovate in this industry, that time is now.

Thank you.