

South Africa's PBMR Is Moving Forward!

Jaco Kriek is CEO of the Pebble Bed Modular Reactor (Pty) Ltd. in South Africa. He was interviewed in Washington, D.C. by Marjorie Mazel Hecht on Sept. 29, 2008. Kriek discussed the history of the PBMR, its role in South Africa's economic development, and the foreign-funded anti-nuclear movement.



Excerpts of the interview follow; the full interview will appear in the Fall 2008 issue of 21st Century Science & Technology.

... We are not just a small local entity. Already South Africa has created a nuclear industry, although it's still young. We have the U.S. Nuclear Regulatory Commission coming to our regulator to learn how our regulatory licensing is coming along. There was a visit a few weeks ago, a delegation of about 15 people from the NRC, visiting our test facilities. And we've got an ASME workshop next week—the American Society of Mechanical Engineers—because our design is based on ASME standards, and we had to make some additions to the ASME codes and standards—ASME Plus. So ASME is engaged with our regulator.

In South Africa, we've kept the nuclear idea alive in public opinion, and therefore when the state utility Eskom just announced that they were going to build a number of large reactors, there was no outcry. The country's citizens almost have an attitude of, "We knew it was coming."

When you talk about local industry: We are now busy with about five local companies, to get them ASME accreditation, so that they can manufacture nuclear-grade components for us. We have agreements now with six universities, and we're increasing the number, to include nuclear engineering as a subject. ...

And we have created the Nuclear Industry Asso-

ciation of South Africa. Areva, Westinghouse, Mitsubishi Heavy Industries, and others—Eskom, Uranium One, Necsa—are members now. It's grown tremendously, and all the big local companies have joined. Its purpose is really to consolidate all the initiatives—education, regulatory issues, manufacturing, licensing, industrial capacity, government liaison, policy issues. ...

If you look at the African grid, South Africa produces and consumes more than 50% of the electric power. ... If you look at other countries in Africa, some of the grids are 900 megawatts, 1,000 MW. To give you an example: I was involved in Mozambique with an aluminum smelter, a 1,000-MW plant. It uses four times the electricity of Mozambique, just that one project. So these small 165-MW PBMR reactors are ideal for these countries. ...

In Mozambique, they use diesel fuel to generate electricity, so cost is not an issue. Even if you think that nuclear will get more expensive, it will never reach the cost of diesel. ...

So it's a challenge for Africa. But South Africa is serious about this. We have a visit to Tunisia next week; they want to understand how they can cooperate with us. Algeria, Morocco, and Libya are also interested in the technology. ... So, you'll probably find that we'll cooperate from the South with the North, Northern Africa, and we'll try and see what we can do. Some of these countries want to establish nuclear training schools with South Africa, and invest with PBMR potentially. ...

Foreign-funded Anti-Nuclear Campaign

It is sad that foreign companies or rich people try to dictate or influence policy decisions in developing countries, when in their own country, they are going to go nuclear. It's sad that they don't want to allow *us* to do it, I don't know what makes them feel they should spend money on this. ...

Because what do you want us to do? Do you want us to continue to import nuclear technology and fuel from the U.S., or from wherever else? Why can China, Japan, France, go ahead with nuclear—but foreign money is used in South Africa for anti-nuclear campaigns? It doesn't make sense to me. ...

If somebody has got a conscience, they're going to spend their money combatting malaria in Mozambique, for example. I think the anti-nuclear funders don't really appreciate the damage they are doing.