

What Is the Future of Los Alamos?

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The Cold War is over. We no longer need to fear a sudden attack by Russian nuclear weapons. Many of those weapons are being dismantled, and we have offered to buy the fissile material contained in them.

Still, nuclear weapons exist in Russia and other countries. There is danger of proliferation. Therefore, we must for the foreseeable future maintain a stockpile of nuclear weapons and make sure that the weapons are in good condition. Los Alamos is very competent to carry out those tasks.

But no country is likely to challenge the United States' nuclear-weapons sophistication—now or in the future. Therefore, I see no need for further weapons development.

Of course, we should have tests of further improvements for the safety of nuclear weapons. But I think such tests can be accomplished by 1996, in compliance with the Hatfield amendment. Thus we have a great opportunity to participate in a comprehensive test ban, and steps in this direction should be taken by 1995 when the Nonproliferation Treaty comes up for review. The

United States will be safer in a world with a comprehensive test ban and nonproliferation than in one with further nuclear weapons development.

Such a program leaves the majority of Los Alamos scientists free to pursue civilian research and development. There are many non-military challenges. During the Cold War this country as a whole and the Laboratory in particular have not thought much about civilian technology. That lack of attention is one important reason for the preeminence of Japan and Germany in modern industry.

The fellows of the Laboratory, with the help of many other staff members, have developed the Advanced Projects Initiative. They have selected about ten long-range projects on various technologies that are likely to become important in one or two decades and are especially suited to the special skills and experience of Los Alamos scientists.

Rightly, the fellows have selected long-range projects. Industry must look to its bottom line and find it difficult to engage in long-range projects, especially if success is not

guaranteed. Universities cannot engage in very big projects, and here again is a chance for Los Alamos. Of course, these arguments should not prevent the Laboratory from working on special tasks for present needs, supported by appropriate contracts with specific industries, but the main concentration should be on long-range projects. If a program like that of the Laboratory fellows proceeds, it would be good to establish some kind of Industry Council, which might deliberate about long-range needs. Universities should also be appealed to for advice. As the work proceeds, new ideas and projects will emerge.

Los Alamos National Laboratory should go at these projects with the same enthusiasm as in World War II and as in the development of H-bombs in 1951–54. The ingenuity already exists.

There are signs that the government understands the need for civilian technology development at the National Laboratories. I hope this will translate into secure money support.

If all this comes to pass, Los Alamos National Laboratory will have a future as brilliant as its past fifty years. ■