

shock wave that propels most of the star outward, propels it at very high speed."

Most days, he said, he spends about four hours studying the nature of the exploding stars, which are known as supernovas. Occasionally, he works up to six hours.

Theoretic physics is a quintessential young man's field, where geniuses often peak at the age of 30, like athletes. Very few make significant contributions at 50. But at 90, Dr. Bethe, a living legend among his peers, is still going strong. "Here's my latest paper," he said with a grin, displaying it proudly on his cluttered desk. "It has been accepted by *The Astrophysical Journal*." The main point, he said, "is that it's easy to get the supernova to expel the outside material," eliminating the problems theorists once encountered.

Dr. Bethe is not interrupting his research to write memoirs. Instead, a biographer is at work. "It's much easier to have a biographer," he remarked, "and he writes much better than I do."

The back of his office door, in an easy-to-view position, held a poster of the Matterhorn. For nearly a half century, a small town at the foot of the great Swiss mountain has been a vacation spot for Dr. Bethe and his wife, Rose Ewald, whom he met in Germany and married in 1939 while the two were newcomers to the United States.

"I couldn't live without her," he said.

His hair askew, his eyes agleam, Dr. Bethe looked a bit like an aged wizard on the verge of disappearing in a puff of smoke. He seemed at ease with his many lives over many decades and appeared to have reconciled his early work on the bomb with his current push to eliminate it. For him, doing the right thing in different periods of history seemed to call for different kinds of actions.

"I am a very happy person," he said with a relaxed smile. "I wouldn't want to change what I did during my life."

FEDERATION OF AMERICAN SCIENTISTS,
Washington, DC, April 25, 1997.

President WILLIAM J. CLINTON,
The White House, Washington, DC.

MY DEAR MR. PRESIDENT: As the Director of the Theoretical Division at Los Alamos, I participated at the most senior level in the World War II Manhattan Project that produced the first atomic weapons. Now, at age 90, I am one of the few remaining senior project participants. And I have followed closely, and participated in, the major issues of the nuclear arms race and disarmament during the last half century. I ask to be permitted to express a related opinion.

It seems that the time has come for our Nation to declare that it is not working, in any way, to develop further weapons of mass destruction of any kind. In particular, this means not financing work looking toward the possibility of new designs for nuclear weapons. And it certainly means not working on new types of nuclear weapons, such as pure-fusion weapons.

The United States already possesses a very wide range of different designs of nuclear weapons and needs no more. Further, it is our own splendid weapons laboratories that are, by far and without any question, the most likely to succeed in such nuclear inventions. Since any new types of weapons would, in time, spread to others and present a threat to us, it is logical for us not to pioneer further in this field.

In some cases, such as pure-fusion weapons, success is unlikely. But even reports of our seeking to invent them could be, from a political point of view, very damaging to our national image and to our effort to maintain a world-wide campaign for nuclear disarmament. Do you, for example, want scientists in laboratories under your Administration trying to invent nuclear weapons so efficient, compared to conventional weapons, that someday, if an unlikely success were

achieved, they would be a new option for terrorists?

This matter is sure to be raised in conjunction with the Senate's review of the Comprehensive Test Ban Treaty, because that Treaty raises the question of what experiments are, and what experiments are not, permitted. In my judgment, the time has come to cease all physical experiments, no matter how small their yield, whose primary purpose is to design new types of nuclear weapons, as opposed to developing peaceful uses of nuclear energy. Indeed, if I were President, I would not fund computational experiments, or even creative thought designed to produce new categories of nuclear weapons. After all, the big secret about the atomic bomb was that it *could* be done. Why should taxpayers pay to learn new such secrets—secrets that will eventually leak—even and especially if we do not plan, ourselves, to implement the secrets?

In effect, the President of the United States, the laboratory directors, and the atomic scientists in the laboratories should all adopt the stance of the "Atomic Scientists' Appeal to Colleagues," which was promulgated two years ago, to "cease and desist from work creating, developing, improving and manufacturing further nuclear weapons—and, for that matter, other weapons of potential mass destruction such as chemical and biological weapons."

I fully support the Science-based Stockpile Stewardship program, which ensures that the existing nuclear weapons remain fully operative. This is a challenging program to fulfill in the absence of nuclear tests. But neither it nor any of the other Comprehensive Test Ban Treaty Safeguards require the laboratories to engage in creative work or physical or computational experiments on the design of new types of nuclear weapons, and they should not do so.

In particular, the basic capability to resume nuclear test activities can and will be maintained, under the Stockpile Stewardship program, without attempting to design new types of nuclear weapons. And even if the Department of Energy is charged to "maintain capability to design, fabricate and certify new warheads"—which I do not believe is necessary—this also would not require or justify research into new types of nuclear weapons.

The underlying purpose of a complete cessation of nuclear testing mandated by the Comprehensive Test Ban Treaty is to prevent new nuclear weapons from emerging and this certainly suggests doing everything we can to prevent new categories of nuclear weapons from being discovered. It is in our national and global interest to stand true to this underlying purpose.

Accordingly, I hope you will review this matter personally to satisfy yourself that no nuclear weapons design work is being done, under the cover of your Safeguards or other policies, that you would not certify as absolutely required. Perhaps, in conjunction with the Comprehensive Nuclear Test Ban Treaty hearings in the Senate, you might consider making a suitable pronouncement along these lines, to discipline the bureaucracy, and to reassure the world that America is vigilant in its desire to ensure that new kinds of nuclear weapons are not created.

Sincerely,

HANS A. BETHE.

THE WHITE HOUSE,

Washington, DC, June 2, 1997.

Prof. HANS BETHE,

Federation of American Scientists, Washington, DC.

DEAR PROFESSOR BETHE: Thank you for sharing your thoughts on nuclear weapons with me, and for the tremendous service you have rendered this nation and the world for well over half a century. Your efforts to de-

velop the atomic bomb during a grave period of national emergency, and your subsequent courageous and principled efforts in support of international agreements to control the awesome destructive power of these weapons, have made our country more secure and the entire world a safer place.

I am fully committed to securing the ratification, entry into force and effective implementation of the Comprehensive Test Ban Treaty (CTBT). By banning all nuclear explosions, the CTBT will constrain the development and qualitative improvement of nuclear weapons and end the development of advanced new types of nuclear weapons. In this way, the Treaty will contribute to the process of nuclear disarmament and the prevention of nuclear proliferation, and it will strengthen international peace and security.

I appreciate your support for the Science-Based Stockpile Stewardship Program. The objective of this program is to ensure that our existing nuclear weapons remain safe and reliable in the absence of nuclear testing. As you are aware, my support for the CTBT is conditioned upon such a program, including the conduct of a broad range of effective and continuing experimental programs. I have also directed that the United States maintain the basic capability to resume nuclear test activities prohibited by the CTBT in the unlikely event that the United States should need to withdraw from this treaty. These precautions notwithstanding, I remain confident that the CTBT points us toward a new century in which the roles and risks of nuclear weapons can be further reduced, and ultimately eliminated.

Thank you again for sharing your views with me as we work to lift the nuclear backdrop that has darkened the world's stage for far too long.

Sincerely,

BILL CLINTON.●

MEASURE RETURNED TO THE CALENDAR—S. 903

Mr. HELMS. Mr. President, I ask unanimous consent that S. 903 be placed back on the calendar.

The PRESIDING OFFICER. Without objection, it is so ordered.

AUTHORIZING SENATE LEGAL COUNSEL REPRESENTATION

Mr. HELMS. Mr. President, I ask unanimous consent that the Senate proceed to the immediate consideration of S. Res. 101, submitted earlier today by Senators LOTT and DASCHLE.

The PRESIDING OFFICER. The resolution will be stated by title.

The legislative clerk read as follows:

A resolution (S. Res. 101) to authorize representation of Members, officers, and an employee of the Senate in the case of *Douglas R. Page v. Richard Shelby, et al.*

The PRESIDING OFFICER. Is there objection to the immediate consideration of the resolution?

There being no objection, the Senate proceeded to consider the resolution.

Mr. LOTT. Mr. President, a resident of California has, for the second time in the past several years, filed a lawsuit in the United States District Court for the District of Columbia challenging the constitutionality of