INTERNATIONAL CONTROL OF ATOMIC ENERGY
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Almost thirty-five years ago the General Synod of the Reformed Church in America meeting in this midwestern city, Pella, Iowa, adopted a resolution "that the President be authorized to appoint a Committee on International Justice and Goodwill of five persons to cooperate with the Commission on International Justice and Goodwill of the Federal Council of the Churches of Christ in America in carrying forward the Christian program for a Warless World."1 Included in the resolution was an endorsement of a Credo of "International Ideals of the Churches of Christ."2

1. We believe that nations no less than individuals are subject to God's immutable moral laws.
2. We believe that nations achieve true welfare, greatness and honor only through just dealing and unselfish service.
3. We believe that nations that regard themselves as Christian have special international obligations.
4. We believe that the spirit of Christian brotherliness can remove every unjust barrier of trade, color, creed, and race.
5. We believe that Christian patriotism demands the practice of goodwill between nations.
6. We believe that international policies should secure equal justice for all races.
7. We believe that all nations should associate themselves permanently for world peace and goodwill.
8. We believe in international law, and in the universal use of international courts of justice and boards of arbitration.
9. We believe in a sweeping reduction of armaments by all nations.
10. We believe in a warless world, and dedicate ourselves to its achievement.

It is a sobering experience to reflect on the progress (or lack of it) which has been made toward achieving these ideals since 1922. There have been some significant changes in the church in these years. The membership of the committee has grown from five (two clergymen, two elders and one college president) to eighteen, four of whom are active in teaching in our church colleges. Many of the members of the Reformed Church and of the Committee on International Justice and Goodwill can recall how hopes for a warless world faded with mounting international tension during the thirties. These hopes were eclipsed by a global war which in turn was climaxed by the use of atomic bombs on Hiroshima and Nagasaki.

The members of the committee have been alert to the new problems created by the discovery and use of atomic energy. They are also aware of the hopeful possibilities which have been demonstrated for peaceful use of atomic energy. In a recent report to the General Synod3 the convictions

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2 Ibid., p. 840.
of committee members were summarized as follows: "We hail the discovery of the secrets of atomic energy as one of the brightest chapters in man's fulfillment of the ancient injunction to have dominion over the earth. Since, so far, the greatest developments in the field of atomic energy have been those inspired by the necessities of preparation for war, we see before us one of history's greatest challenges and opportunities to take a power designed for destructiveness and transfigure it into an agency of construction. We, therefore, wholeheartedly endorse the programs which look to the development of atomic energy for peacetime purposes, whether under the auspices of government or private industry, and urge that the benefits of such peacetime uses be extended as quickly as is feasible particularly to the underdeveloped areas of the world."

We propose to consider the background of such a statement of convictions and to show how it can be related to Christian faith and action. Deeming it a Christian responsibility to be informed on a matter of worldwide interest, we shall discuss first some basic concepts and problems. In the light of these facts we shall present possible approaches to a solution of the problem. Finally, we shall suggest some recommendations for action by church members, both laymen and clergymen.

I. The Responsibility of Knowing

There can be no doubt that there are international tensions because of atomic energy. This brings the subject within the range of study of the Committee on International Justice and Goodwill. The development of atomic energy was tremendously accelerated by the state of a world in conflict. Many countries were searching for the secret with feverish intensity. Dare we say that it was by Divine Providence that the United States with the help of some allies was the first nation to master the techniques which made an atomic bomb possible?

Some of the tension due to atomic energy is associated with the practice of stock-piling materials capable of being used in atomic weapons. It is not difficult to imagine how citizens of a rival country might feel in such a situation. The dreadful potential of atomic energy magnifies in an exponential way the problem of the "haves and the have-nots." At present Russia, Great Britain and the United States have appreciable quantities of fissionable material. Unless some method of sharing this is devised, we can only expect international tension to increase.

Another factor producing tension is the practice of nuclear weapons testing. The very name suggests that the purpose of such testing is not for the benefit of any of our world neighbors unless they happen to be our allies. The danger involved in this testing was dramatically disclosed when some Marshallese and Americans were accidentally exposed to radiation from a fallout following the explosion of an experimental thermo-nuclear
device at the U. S. Atomic Energy Commission’s Eniwetok Proving Grounds on March 1, 1954. Unexpected changes in the winds resulted in the unintentional deposition of radioactive materials on inhabited atolls and on ships of Joint Task Force No. 7. The results of that exposure have been published in a report of the Atomic Energy Commission.4

Another tension increasing factor is the practice of secrecy in regard to activities in the atomic energy program. The relation between security and secrecy is at best a complex one but it is certainly a natural reaction to become suspicious of a person or nation which insists on secrecy. Even though it is possible to detect the approximate size and location of a large atomic or thermo-nuclear bomb, there seems to be little hope of knowing about smaller ones without an elaborate inspection program.

The problem of international tensions is not a new one but it is strongly accented by the universal aspects of atomic energy. Just as the discovery of atomic energy depended on the contributions and discoveries of many men in many nations, so will its application involve many men in many nations. Even though ninety-nine countries out of one hundred should agree to outlaw the use of nuclear weapons, they would all be in danger because of the other one. Besides the obvious danger of military use, there are the unique and persistent problems of fallout and radioactive waste disposal. These problems are so important that they warrant more detailed discussion.

The term “fallout” applies to the material which settles down to earth after an atomic explosion usually as dust or in rain or snow. Some of this material may be dangerously radioactive and may fall hundreds of miles from the site of the explosion. The degree of danger varies with the type of explosion and with the particular material. Of the hundreds of radioisotopes produced in an atomic blast about a dozen are of special concern to the health physicist. One notorious example is Strontium-90, which is chemically much like calcium.5 Like calcium it is deposited in the bones, where it lodges quite persistently. There it may cause bone deterioration, may destroy cell-forming bodies and may shorten the life of the victim.6

The problem of radioactive waste disposal is associated with laboratory testing and with peaceful uses of atomic energy. Instead of producing radioisotopes very rapidly and at very high temperatures as in an atomic bomb, these uses involve producing them at a controlled rate and at relatively low temperatures. In an atomic reactor the fuel elements

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5Ibid. Chap. VI “Human Radiation Injury Resulting from the Use of Nuclear Devices,” pp. 95ff.
(generally uranium) gradually become more and more highly radioactive and less and less efficient for energy production. This is the reason for the return of the "Nautilus" to port for refueling. The "spent" fuel elements must be handled very carefully and the more dangerous fission products must be disposed of in a way which will protect all personnel.

The disposal of large quantities of radioactive material constitutes a staggering problem. Each radioisotope gives off its characteristic radiation at a rate which can neither be accelerated nor retarded. At present there is no known way of eliminating radioactivity. Reasonable protection is possible by shielding with lead or with thick concrete walls. One approach to disposal is that of dilution. This works with radioactive gases or water soluble liquids and solids. The other general approach is to bury the radioactive material in some isolated and relatively useless area. This adds a sinister twist to the hidden treasure theme so popular in literature. What will future generations think when they come upon these radioactive burial grounds?

Fortunately the atomic energy picture is not entirely a gray and black one. There are tremendous possibilities for the production of useful energy in an atomic reaction. Many of the potentially dangerous radio isotopes have been put to significant use in research projects in agriculture and medicine. As new reactors are designed, constructed and put into use a whole new realm of power production is being opened up. Each new reactor represents a new achievement in engineering—unheard of fifteen years ago. We believe that informed Christians should be willing to accept the responsibility of thinking about the problems connected with atomic energy with a view to finding solutions in keeping with the Christian gospel.

II. THE RESPONSIBILITY OF THINKING

There can be no doubt that atomic bombs and thermo-nuclear devices are dangerous. Even research type reactors are built with many safety devices to protect as fully possible against mishap. That is one factor about which the Atomic Energy Commission is very concerned in considering requests for building atomic power plants. Each experimental design gives more information to help us learn to live with atomic energy.

As Christians, what can we say about the practice of stock-piling fissionable materials? The answer must depend on the purpose for which they are being accumulated. If the purpose is simply to construct atomic weapons, we must raise a voice of protest. Throughout its three and one-half decades the Committee on International Justice and Goodwill has expressed its opposition to war. General Synod in accepting these reports
has concurred in this conviction. A special commission appointed by the Federal Council of the Churches of Christ in America has published a report on the use of military weapons of mass destruction.7

The report includes these significant statements: "In the harsh light of history, the best hope of preventing a global atomic war lies in preventing the recurrence of global war itself (p. 7). . . . The real moral line between what may be done and what may not be done by the Christian lies not in the realm of the distinction between weapons but in the realm of the motives for using and the consequences of using all kinds of weapons. . . . What may or may not be done under God can be known only in relation to the whole, concrete situation by those responsibly involved in it. . . . The terrible burden of decision is the Christian man's responsibility, standing where he does before God" (p. 13).

The same line of reasoning would apply to the problem of nuclear weapons testing. Human nature being what it is, men find it difficult to distinguish between the highest good for all men and the apparent good for themselves. We must be realistic in facing the problems of international relations but the Christian must always be conscious of God-centered responsibility in every given situation.

We should be prepared to give an answer to those who suggest that "limited war" is the solution to our fears of atomic war. This position is presented by James E. King, Jr., in a recent issue of Foreign Affairs.8 "All future wars will be fought in the shadow of nuclear power. . . . Total nuclear war would end civilization as we know it. . . . The only attainable safeguard seems to be the limitation of war to levels of destruction compatible with civilization. . . . Armed conflict can be limited only if aimed at limited objectives and fought with limited means. . . . While using every opportunity to reduce international tensions and to extend the reign of order among nations, we must work positively for the limitation of wars." Attractive as this may sound, we must ask if we are justified in settling for anything less than a warless world as our goal.

The suggestion that the United States share with other nations some of her supply of fissionable materials deserves consideration. Such a practice would be the best answer to criticism from the "have-nots." However, we must admit that supplying usable quantities would be equivalent to putting potential atomic bombs in possession of other countries. The sore spot is the fact that we have no assurance that the material will be used in a responsible way. Here we shall have to move forward in the atom-for-peace program with reasonable confidence in the goodwill of our

neighbor nations. It seems highly desirable that the sharing be done through an international agency such as the United Nations so that there will be a minimum of the rich uncle complex. "Weapons control and atoms for peace are two sides of the same coin; together, if successful, they could spell stability and peace in the atomic age." ¹

III. THE RESPONSIBILITY OF DOING

Members of the Reformed Church in America are seldom accused of activism in church circles. Perhaps it would be well for us to undertake a positive program of seeking peace in the name of the Son of Peace. Smugness and complacency are attitudes quite unbecoming to a Christian. The Committee on International Justice and Goodwill stands ready to help a church or society which sees the need of education for action in relation to atomic energy. It is our hope that the report of the committee presented each year to the General Synod will reach to all church homes. With the cooperation of pastors, youth workers and Sunday School teachers, we hope to enlighten all of our members so that they will be inspired to support a positive program for peace.

As long as there is no "hot war," we have time to exchange ideas among nations in the hope of persuading them to live peacably. Therein lies the benefit of the International Atomic Energy Agency. Its stated purpose is "to promote the peaceful use of nuclear energy around the world." The objectives of the Agency are: "To accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall insure, so far as it is able, that assistance provided by it or at its request or under its supervision is not used in such a way as to further any military purpose." ¹⁰ These statements are in keeping with the concerns expressed by our committee with regard to atomic energy.

Even such an agency will not solve all problems without cooperation. Our efforts may well be directed toward encouraging such an attitude and at the same time decreasing the causes of tension. Here we must not overlook the power of the Spirit of God working in the hearts and lives of men. If we believe that "more things are wrought by prayer than this world dreams of," we have every opportunity to seek God's help and guidance.

Prayers for guidance of the President and the Secretary of State in determining policy should be supported by written communication to these men and their assistants. They might appreciate some visible encouragement in their efforts to learn and to do what is right in each situation.

Learning to live with atomic energy may not be an easy process. It

appears that we shall be forced to accept international control as an alternative to another global war. We believe that a Christian spirit of love and patience can do much to overcome the tensions and suspicions which now exist between nations. As Christians let us accept the challenge to help create the conditions and the attitudes under which the peaceful uses of atomic energy can be developed! It is our conviction that this can best be done in a spirit of good will among individuals and among nations.