

WEST GERMAN NUCLEAR DEVELOPMENT AND
INTERNATIONAL SAFEGUARDS, 1945-1970

by ⁷²¹⁴

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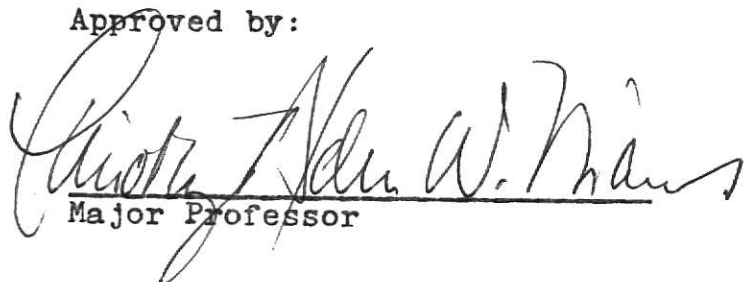
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INTRODUCTION

The political and economic implications of science and technology lend themselves to study from both national and international points of view, and thereby to a clearer understanding of how policy reflects both domestic and international considerations. This internal-external relationship is nowhere more problematical than in the Federal Republic of Germany (Bundesrepublik Deutschland--BRD), whose recovery from ignominious defeat has required the simultaneous construction of constitutional order at home and secure respectability abroad. Within West Germany, the scientific-technological issues of developing and exploiting the atom for welfare and security produce special policy concerns.

Study of the effects of peaceful and military nuclear capability upon national power focuses upon two relationships. One factor pertains to the permanent inequalities resulting from the introduction of a particular technological advance into the international system. For example, the manufacture of guns altered the status of peoples who did not have access to the materials or the knowledgeable personnel vis-à-vis those who controlled that technology. The other factor is the effect of such developments upon various actors in international politics (nation-states, international communities, and international organizations). What changes take place in the system

to accommodate the technological inequality? As a result, does it confer more power to some actors than to others?¹

With the discovery of controlled atomic fission, a new dimension of technological inequality appeared. Open to debate, however, is the way nation-states perceive the inequality. Do nations tend to define nuclear science in terms of economic or military security?

Thomas W. Robinson contends that nuclear weapons do not alter the specific national interests of a country, but rather change the way in which interests are pursued. Interests of a nation-state do not change rapidly, available policy alternatives are limited, many different specific interests are involved, and the domestic political environment in which the interests were originally perceived and expressed tends to remain static.² Examining the effects of the development of nuclear physics upon the Federal Republic of Germany can lead to further clarification of international processes.

National positions on "diversion safeguards" for nuclear materials provide some clues to how states define the value of nuclear peaceful and military capability. Briefly, diversion safeguards are measures designed to regulate the spread of

¹William T. R. Fox, "Science, Technology and International Politics," International Studies Quarterly, XII (March, 1968), 1-3.

²Thomas W. Robinson, "National Interests," in International Politics and Foreign Policy, ed. by James N. Rosenau (2d ed.; New York: Free Press, 1969), p. 189.

nuclear military capability by ensuring that fissionable materials being used for peaceful purposes are not illegally diverted to weapons manufacture. In practice, such safeguards are mainly concerned with plutonium and enriched uranium, both of which elements exist in large quantities worldwide, in many forms with many non-military and military applications. From the standpoint of nuclear military nations, like the United States, France, or the Soviet Union, domestic and international safeguards are a way to limit the nuclear military club as well as to exercise responsible management of precious fissionable materials. From the standpoint of highly industrialized non-nuclear military nations, like West Germany, the rewards and costs of cooperating in regional and global safeguards must be weighed against the rewards and costs of autonomous national nuclear development.

This thesis examines the BRD's post-World War II experience with nuclear development and international diversion safeguards to investigate the effect of economic and political considerations upon a decision to submit to an international restriction with great implications for the domestic economy.

One measure of the relative weight which a country assigns political or economic status could be obtained from observance of decisions made after an international event occurs which pertains to the subject under discussion. The area of safeguards and the policy of the Federal Republic of Germany (BRD) lend themselves well to this analysis in the form of a case

study.

Along with a desire for national security, BRD decision-makers must weigh the pros and cons of national nuclear policy to maximize the benefits of nuclear power for both international political and economic status. The country stands to gain much economically from an expansion of the exploitation of nuclear energy. Although the Federal Republic has no independent nuclear military force at present, it is capable of such development. A military nuclear program would increase the amount of research devoted to nuclear technology. The West Germans have an extensive foreign trade market available to the nuclear industry, and the German Mark is one of the more stable currencies in the world.

Accompanying the potential economic benefits for the country in nuclear technology is the knowledge that other nations would not welcome the development of a German nuclear military capability. The Soviet Union in particular, but with concurrence in the west would oppose a move in that direction. Thus the dilemma in the Federal Republic of Germany lies in developing an economically viable peaceful nuclear industry without incurring severe political risks. At the same time, reassurance to other nations must not damage the ability of the West German nuclear industry to compete in the world market. Choices in the strategies to accomplish safeguards provisions can thus indicate the country's attitude toward its economic and political status as well as toward nuclear energy.

In this respect the BRD is not alone. Japan, Israel, Sweden, and India, to name a few regional leaders with potential nuclear weapons capability, face the same decisions. Analysis of the position of the BRD can well be a step in the direction of predicating a generalized value of political power with regard to the nuclear sphere for non-nuclear nations.

CHAPTER I

CONTROL OF THE ATOM: SAFEGUARDS AGAINST DIVERSION

The United States ended World War II as the sole possessor of nuclear military capability, but was soon joined by the Soviet Union. Thereafter at various intervals, three more nuclear military powers appeared: Great Britain, France, and the People's Republic of China. Each new capability strengthened an international consensus on preventing the proliferation of nuclear weapons. Few disagreed with the intent of the many proposals to achieve that end. The prime difficulty lay in the implementation of the policy, since physical and economic security, the two universal national interests of nation-states, were directly involved.

Restricting the number of nuclear powers was not perceived as involving only the five atomic nations, but also the non-nuclear states. These actors had to consider their own national security in case they were the victims in a nuclear attack, their prestige, and the deterrent value of a national nuclear capability. Lawrence Scheinman succinctly detailed the problem:

In an age of resurgent nationalism where nations vie with one another for regional leadership and prestige, nuclear symbols are important. Nations which aspire to regional leadership have tended to follow a pattern of creating at least a modicum of nuclear sophistication. . . .

But beyond this fairly benign form of competition lies a more serious problem. For some states, especially those involved in regional confrontations, the acquisition of a nuclear complex including power reactors, fabrication and reprocessing plants, is a potential guarantee against that distant day when existent security commitments may lose the credibility and nations find themselves moved to convert the peaceful infrastructure into a military capability in the name of national security.³

With regard to nuclear proliferation, diversion safeguards quite simply refers to the method of ensuring that diversion of nuclear material being used for non-military purposes to a system of weapons production is detected at an early stage. The possibility of such detection may act as a deterrent to proliferation.⁴ Not so simple is the question of how compliance can be assured.

Two processes are at work in a nation's consideration of nonproliferation. First, a state may determine the weapons it needs after ascertaining that other international actors possess given levels of armaments. Or, it may try to determine its own effect upon other nations' armaments in a situation where it retains a certain military capability. The inability of the international system to provide an effective assessment of the perceptual factors involved in arms escalation has provided an additional impetus to the formation of various

³Lawrence Scheinman, "Pandora's Nuclear Box," International Journal, XXV (Autumn, 1970), 784-85.

⁴For an excellent explanation in layman's terms of the nuclear physics involved, see Werner Ungerer, "Kernenergie-Kontrolle und Non-Proliferation," Aussenpolitik, XVII (November, 1966), 660-69, and especially his "Das nukleare Dilemma und die Bundesrepublik," Aussenpolitik, XVII (October, 1966), 599-606.

safeguards proposals.⁵

From the viewpoint of the nuclear nations, a positive view toward limited nuclear proliferation might entail a rejection of Nth nation hypothesis--that if nation #6 goes nuclear, there will be a rash of similar moves on the part of presently non-nuclear nations. Its acceptance still might not preclude proliferation. A nuclear nation which aids in small-scale proliferation would probably count on being able to hold itself aloof if any conflict were to develop involving that new nuclear unit outside its borders.⁶ Such a view is also tempting to the small nations, but it has not enjoyed international consensus. What has been admitted is the need for safeguards to still fears of the acquisition of nuclear capability by the nations reliant upon conventional forces.

Inspection and deterrent systems to ensure compliance with political rules have been myriad and adapted to non-technical areas for thousands of years. But safeguards programs allowing peaceful nuclear undertakings to flourish while at the same time preventing bomb manufacture have presented more technical difficulties. Most political matters with control by inspection are not enforced by the ruler of the physical or

⁵Knut Midgaard, "Arms Races, Arms Control, and Disarmament," Cooperation and Conflict, (1970), p. 20.

⁶William C. Foster, "Risks of Nuclear Proliferation: New Directions in Arms Control and Disarmament," Foreign Affairs, XLIII (July, 1965), 590.

spiritual world or his representative as has been the case. Lacking such a comprehensive power base, statesmen interested in developing a concept of safeguards faced the difficulties inherent in maintaining all international norms. Two general methods were possible: (1) to ensure punishment or negative reinforcement if the actor did not comply with the norm circumscribing the particular behavior judged detrimental to the system; and (2) to obstruct the way to norm-breaking with credible obstacles, such as other rules with sanctions for their disobedience, which, if broken, would not result in dire consequences for the ultimate value they are protecting.

Along with the difficulty provided by the absence of a central authority, the first method must not only take into account the presumed national interest involved, but also the reactions of individual decision-makers who will be directing policy. The cultural and personal variables, including changing conditions and changing decision-makers, are difficult to coordinate under one formulation of an important international rule. A compromise used in most rule formation is to deliberately form agreements on the conservative side of the original concern.⁷

Another important consideration is the question of

⁷Roger Fisher, "Internal Enforcement of International Rules," in Disarmament: Its Politics and Economics, ed. by Seymour Melman (Boston: American Academy of Arts and Sciences, 1962), pp. 101-08.

national security. Unless an international rule increases the security of the contracting parties from what it was in an unregulated context, it will be of short-lived usefulness. Thus, multi-channel communication must be available to each country for reciprocal transmission of knowledge about the conduct of individual members under the rule. Reassurance is the ultimate goal of the dissemination of inspection information. To this end, political and military leaders as well as the general population must perceive that national security will not be enhanced by rule-breaking.⁸

One proposal to provide for reassurance in the event of international rumors that a nation has violated a crucial rule, when in fact it has not, has been proposed by T. C. Schelling. In such a crisis a primary need would be for the parties involved to see immediately what was happening and to communicate the reality to the proper officials. In a matter close to the heart of national security, positive evidence of adherence to the rule, and not solely the assumption that "no news is good news" is necessary for smooth operation of an international rule. A program with observers functioning in this manner could conceivably be misused for one-sided national gain, but Schelling feels that these risks are outweighed by the overriding

⁸Leonard S. Rodberg, "The Rationale of Inspection," in Disarmament: Its Politics and Economics, ed. by Seymour Melman (Boston: American Academy of Arts and Sciences, 1962), pp. 68-73.

problem of providing positive reassurance.⁹

Notwithstanding the urgency of the question of sanctions, no comprehensive answer has yet evolved. Many proposals for safeguards inspections have been made and some are in force today, but the newness of the applicable regulations also means that the rules have not been severely tested. We still do not know about the viability of the sanctions proposed.

The main difficulty in preventing nuclear materials diversions lies in the interlocking peaceful and military uses of nuclear energy, which often are indistinguishable except in the end result. For example, nuclear explosions for peace and for war involve similar technology, materials, and often identical personnel.¹⁰ To detect a violation of the nuclear nonproliferation rule while allowing peaceful nuclear explosions would be virtually impossible until after the fact, and safeguards inspections must be preventive in nature to achieve their purpose. For this reason, the general rule would have to prohibit nuclear explosive technology for any purpose in order for it to be effective. This example is perhaps the most difficult one, but other areas of nuclear energy production encounter similar problems. Isotope separation plants produce enriched

⁹Thomas C. Schelling, "Arms Control: Proposal for a Special Surveillance Force," World Politics, XIII (October, 1960), 1-17.

¹⁰Ulf Ericsson, "The Non-Controversial Use of Nuclear Explosions for Peaceful Purposes," Cooperation and Conflict, (1970), pp. 5, 11.

nuclear fuel which may be used in a weapons program or in peaceful pursuits. Who is to decide that the process is directed toward military ends?

A second but equally important problem is the method of inspection. A detailed description of physical inspection systems is beyond the scope of this paper,¹¹ but the question of who does the inspecting is directly applicable. Four alternative international systems to prevent the diversion of nuclear materials from peaceful to military purposes present themselves: (1) inspection by the nations involved within their own borders; (2) international inspection by individual nations; (3) international inspection within international communities by their membership; and (4) international inspection by a comprehensive international organization.

The first alternative is equivalent to a no-safeguards system, which sacrifices a reliable information flow and viable restraints on the behavior in question. National security is enhanced in one direction by the ability to withhold domestic information of interest to other nations, but it is diminished in another by the concomitant uncertainty about other actors' behavior. The norm of nonproliferation becomes relatively useless under such a set-up.

¹¹See Bernard T. Feld, "Inspection Techniques of Arms Control," in Arms Control, Disarmament and National Security, ed. by Donald G. Brennan (New York: George Braziller, 1961), for a typology of general inspection possibilities.

The alternative of international inspections by individual nations has rarely been used to enforce international rules. In the sphere of nuclear energy, however, this has been the predominant pattern since World War II. Nuclear fuel and reactors as well as other aspects of nuclear technology have been under strict donor regulation within the boundaries of the recipients. Since the amount of material and thus the scope of the inspections have been limited, the arrangement has proved mutually satisfactory and non-controversial until recently.¹² With the advent of the increasing gains in economic advantage through the peaceful use and development of the atom on a large scale, the desirability of the arrangement has lessened in the eyes of the recipients. Still, Lawrence Finkelstein sees some merit in "sides inspection," that is, inspection carried out by mutually suspicious actors within each other's boundaries. First, he postulates that such inspection systems would be less vulnerable to internal obstruction than multinational ones. Second, the problems of trustworthiness, loyalty, and technical qualifications would be lessened if national agents were permitted to function as inspectors. Third, the potential violators would be deterred due to the increased credibility of a direct national threat if a violation were discovered.

¹²Dipak Gupta, "Die Überwachung der friedlichen Atomtechnik," in Nichtverbreitung von Kernwaffen, by Ludwig Raiser, Jürgen Seetzen, Dipak Gupta, J.R. Schlesinger, Arnold Kramish, C. F. v. Weizsäcker, and Günter Howe, Forschungen und Berichte der Evangelischen Studiengemeinschaft, Band 22 (Witten: Eckart-Verlag, 1968), p. 24.

Fourth, the range of information that could be held to be relevant to the inspection would probably be more broadly defined by the inspectors in a "sides system" than in an impartial one. Fifth, the information so gathered would be directly available to the nations which were interested, a point which might be obscured by an impartial system.¹³

"Sides inspection" encounters drawbacks which all but prohibit its initiation as a comprehensive safeguards system. The cost, especially to small countries, is prohibitive, for the non-nuclear nations are as interested in keeping tabs on one another as the nuclear powers. The shortage of technically qualified personnel and the cost of their support are additional barriers to its implementation. Deterrence could only be accomplished by nations with recognized power in the international sphere and probably with a large nuclear military capability. The greatest drawback is the unwillingness of nations to allow inspectors from possibly hostile and at least competing nations access to industrial processes in the nuclear sphere which would be of economic importance to the host country. Industrial and military espionage is a fear of most nations who consider safeguards proposals.

¹³Lawrence S. Finkelstein, "Reciprocal Inspection," in Disarmament: Its Politics and Economics, ed. by Seymour Melman (Boston: American Academy of Arts and Sciences, 1962), pp. 89-90.

Two types of inspection safeguards systems are particularly relevant to the study of the West German view of international control of the atom. The Western European Union (WEU) inspection system dating from 1954, the European Atomic Energy Community (Euratom) provisions of 1957 and the International Atomic Energy Agency (IAEA) inspections since the Non-proliferation Treaty (NPT) of 1968 provide two variations of a regional control system and one of a comprehensive program supported by an international organization of broad scope.

Western European Union

Although of limited importance as far as world programs on the safeguards scene was concerned, the 1954 Western European Union treaty was the first experience of the BRD with an international inspections system dealing with nuclear armament. The formation of the WEU with a membership including most of western Europe and the United States was in great part a political move to pave the way for West German rearmament and coordination with NATO. Thus it is not surprising that the safeguards system set up by the organization occasioned little distress in the BRD. Under it, the new nation promised never to manufacture nuclear weapons on its territory. WEU inspections were provided at regular intervals and included test checks on the mainland of Europe only. Information gathered on these rounds was available just to NATO officials. The German government was satisfied by a provision enabling an amendment or cancellation

of the prohibition against nuclear weapons manufacture in the future.¹⁴

Euratom

The Suez crisis in 1956 and the threat of a shortage of conventional fuels gave impetus to the formation of Euratom with France, the Netherlands, Belgium, Luxemburg, Italy and the Federal Republic of Germany as members. Part of the drive for organization came from the apprehension of the United States and other European countries that the BRD might embark on an independent weapons program. It also appeared that the amount of money involved in building up separate national industries could be put to better and more efficient use in a joint European project. The prime considerations of the community-builders, however, were that as yet there had been very few national or private vested interests in the area, and therein lay an excellent opportunity for a truly European venture.¹⁵

One conception of the original purpose of the organization had been to produce some weapons as well as nuclear power.¹⁸

¹⁴"Paris Protocols Amending the Brussels Treaty and Establishing the Western European Union, October 23, 1954," in Documents on Germany, 1944-1961 (Washington, D.C.: Government Printing Office for the use of the Committee on Foreign Relations, U.S. Senate, 87th cong., 1st sess., 1961), pp. 161-69.

¹⁵Political and Economic Planning, European Organisations (London: George Allen & Unwin, Ltd., 1959), p. 317. See also Louis Armand, "Atomic Energy and the Future of Europe," Foreign Affairs, XXXIV (July, 1956), 655-664, for persuasive arguments about the formation of Euratom.

¹⁶Harold L. Nieburg, Nuclear Secrecy and Foreign Policy (Washington, D.C.: Public Affairs Press, 1964), p. 130.

A contravening desire was to centralize ownership of nuclear materials and make them available only for peaceful purposes to equalize the position of Germany vis-à-vis the other countries involved, especially France. The United States and Britain had decided to restrict the access to atomic arms within the alliance. By the use of technical aid, loans, and the furnishing of equipment, as well as the efforts of the countries forming the European Nuclear Energy Agency to isolate the French weapons interest, other nations helped direct Euratom toward peaceful uses of nuclear energy.¹⁷

Signing the treaty in March, 1957, signified a compromise on the part of both France, who was eager to see a strong central control to curb Germany's nuclear ambitions,¹⁸ and of West Germany, who preferred private entrepreneurship and a free-market supply system.¹⁹ The French reaction to German rearmament and the feeling of partial failure with regard to the future of European integration showed that fears of a strong Federal Republic were not entirely dissipated.²⁰

¹⁷Harold L. Nieburg, "Euratom: A Study in Coalition Politics," World Politics, XV (July, 1963), p. 597.

¹⁸Michael Curtis, Western European Integration (New York: Harper & Row, 1965), pp. 224-25.

¹⁹Jaroslav G. Polach, Euratom (Dobbs Ferry, N.Y.: Oceana Publications, 1964), p. 65.

²⁰See Lee C. Nehrt, International Marketing of Nuclear Power Plants, Indiana University Social Science Series, No. 22 (Bloomington: Indiana University Press, 1966), p. 107, and Alfred Grosser, "Germany and Europe," in European Integration, ed. by C. Grove Haines (Baltimore: Johns Hopkins Press, 1957).

Shortly after the treaty was conceived, the United States began a series of meetings to define the relationship of the new organization to its major supplier. Euratom insisted that safeguards provisions remain in its hands, and not with the U.S., as had been the case in bilateral agreements.²¹ After much debate in the United States, the Euratom position was adopted.

Euratom safeguards provisions are designed to certify that nuclear materials are being used only for the purposes for which they were acquired. Safeguards do not pertain to material used in defense installations or for military purposes. Members have the added duty of adhering to safeguards provisions in international contracts to which Euratom is a party, thus theoretically eliminating the need for other foreign inspectors.²²

Technical and industrial processes are to be made known to the Commission insofar as such knowledge would be necessary to fulfill inspection provisions. The Commission has the power

²¹Nieburg, "Euratom: A Study in Coalition Politics," p. 611.

²²"Vertrag zur Gründung der Europäischen Atomgemeinschaft (Euratom)," in Europagesetze (Munich: Wilhelm Goldmann Verlag, 1961), pp. 194-259. The original purpose of this provision was to enable the individual members of the Community to transfer their bilateral agreements under the auspices of Euratom. It played a large part in the final acceptance of the Euratom treaty for some member states. See Arnold Kramish, "Die Bewachten und die Unbewachten: die Inspektion im Atomsperrvertrag," in Nichtverbreitung von Kernwaffen, by Ludwig Raiser; Jürgen Seetzen, Dipak Gupta, J. R. Schlesinger; Arnold Kramish, C. F. v. Weizsäcker; and Gunter Howe, Forschungen und Berichte der Evangelischen Studiengemeinschaft, Band 22 (Witten: Eckart-Verlag, 1968), p. 60.

to send inspectors to member countries, where they are to be allowed access to relevant installations and information. National officials may accompany but not hinder the inspectors. In case a violation is detected, several levels of sanctions are available. A warning could be followed by negative reinforcement in the form of revocation of certain privileges such as financial support or technical help, the transfer of control of the installation to a person or group responsible to the Commission for a time period not to exceed four months, and the boycott of nuclear materials for the guilty party, in that order. Ultimate responsibility for sanctions lies with the member states.

Omitting a specific provision for the frequency of inspections, the Euratom treaty nevertheless presents a flexible and comprehensive safeguards system with the exception of the military installations. Euratom maintains that the most critical area to be watched is reprocessing plants, whose plans are carefully studied even prior to construction under the provisions of Articles 71 through 79 of the treaty. Other operations may be examined if Euratom feels it is necessary. Inspectors are certified by the Commission and thereafter have freedom to check on operations in any member state.²³

In general, Euratom's safeguards system does not involve

²³Kramish, "Die Bewachten und die Unbewachten: die Inspektion im Atomsperrvertrag," p. 60.

revealing industrial secrets to the organization, since controls are usually of the input-output type rather than checks on the material while it is undergoing actual processing.²⁴ Information which does reach inspectors occasions less anxiety under this system since the chief world competitors in nuclear technology are not represented in the inspectorate.

The inspecting organization also has the ability to deal directly with the factory owners. Once material that was previously under Euratom control leaves the territory of the Six, Euratom safeguards provisions no longer apply.²⁵

An additional factor was that the organization was in trouble. France refused to transfer the powers of its Commissariat for Atomic Energy to the supranational system under Euratom.²⁶ The efficacy of inspections was also undermined by the French refusal to allow Euratom inspection of some of its power plants, such as the Marcoule power station, on the grounds that they were military installations.²⁷ Also, the preoccupation of the members with hoarding industrial secrets in order to gain an advantage over the other member states weakened the Community.

²⁴Ibid., pp. 60-61.

²⁵Gupta, "Die Überwachung der friedlichen Atomtechnik," p. 28.

²⁶W. Horsfall Carter, "A Hard Look at the Community," International Affairs (London), XLVI (April, 1970), 283.

²⁷Curtis, Western European Integration, pp. 229-30.

This concern is reflected in the pragmatic operation of inspections, which ordinarily do not actively control processes or installations where they might incur charges of espionage.²⁸

In fact, safeguards provisions rapidly became one of the most useful functions of Euratom. The organization was faltering not only due to the excessive nationalism prevalent in the attitudes of the Six, but also from weak leadership, such as under President Pierre Chatenet,²⁹ and the realization that the future power shortage feared in the 1950's was not an imminent danger after all.³⁰ As a special field of endeavor, the peaceful use of nuclear energy no longer was so rare as to give businesses any pressing need for a Euratom contract. In some cases, the additional red tape was actually seen as a hindrance.³¹ For these and other reasons, consolidation of the treaties and commissions of the Common Market organizations was seen as likely and desirable.³² Today Euratom safeguards operate under

²⁸Louis Armand and Michael Drancourt, The European Challenge, trans. by Patrick Evans (New York: Atheneum, 1970), p. 173.

²⁹William Pickles, "Political Power in the European Economic Community," in The New International Actors, ed. by Carol Ann Cosgrove and Kenneth J. Twitchett (London: MacMillan, 1970), p. 213.

³⁰Curtis, Western European Integration, pp. 230-31.

³¹Leon N. Lindberg and Stuart A. Scheingold, Europe's Would-be Polity (Englewood Cliffs, N.J.: Prentice-Hall, 1970), p. 308.

³²Reinhard Loosch, "Kernenergie und internationale Zusammenarbeit," Aussenpolitik, XX (July, 1969), 395.

a fused commission in essentially the form outlined above.

IAEA

The International Atomic Energy Agency, an independent organization affiliated with the United Nations, was formed early in the 1950's with support from the United States. The Agency was fairly weak, although plans for IAEA's concentration of the world's nuclear fuels were laid. As international concern about the effects of nuclear proliferation mounted, the IAEA gained in importance. The safeguards system under which it has operated is testimony to the growing influence of the organization from the time Eisenhower made his proposal in a 1953 speech to the present.³³

Prior to the formation of Euratom, the IAEA had not taken the initiative in safeguards development. When the European organization presented the United States with its controversial proposal for self-inspection, the IAEA had not even a pilot safeguards program which the U.S. could have used to argue against implementation of Euratom safeguards. At that juncture, it appeared that the U.S. and the other nations who had dealings with the new organization had rejected the IAEA as a safeguards agent. By 1958, only the U.S. and Japan had transferred their

³³For a discussion of the scope of IAEA during the 1950's, see Paul Fent, "Die Internationale Atomenergie-Organisation, ihre Tätigkeit und ihre Probleme," Europa-Archiv, XIV (July 5, 1959), 431-36.

bilateral agreement on atomic materials to the Agency.³⁴

The IAEA statute, signed on October 26, 1956, by seventy nations, did contain what appeared on paper as fairly comprehensive safeguards provisions. International inspection included approval of reactor design and other equipment; observance of safety rules; maintenance of installation operating records; reception of progress reports; control over the processes where diversion of fissionable material would be most likely; and an international inspectorate. Inspectors were given privileges similar to those of the Euratom inspectors, except that individual appointments were approved in consultation with each individual state involved.

If a violation were discovered, the General Assembly and Security Council were to be notified and could take action. The offending member might be suspended from the Agency and its privileges and be called upon to return all Agency materials.

Another provision under the original safeguards plan was the complete control by the Agency of any weapons-grade by-products of fission. In the final draft, states could still be accountable for all source materials.³⁵

³⁴David F. Cavers, "International Cooperation in the Peaceful Uses of Atomic Energy," Vanderbilt Law Review, XII (December, 1958), 47-48.

³⁵Source material refers to uranium deficient in U₂₃₅ or containing the mixture found in nature and thorium, as well as any compounds containing those materials. See Bernard G. Bechhoefer and Eric Stein, "Atoms for Peace: The New International Atomic Energy Agency," Michigan Law Review, LV (April, 1957), 761-766.

With increased concern for international peace, nuclear nations sought some agreement to restrict proliferation that would be agreeable to all nations in the international system. In the mid-1960's, debate began on a nuclear non-proliferation treaty which would be sponsored in the United Nations not only by the United States, but also by the Soviet Union. When an enforcing and inspecting agency was sought, the IAEA, with its updated structure and organization,³⁶ was settled upon as the best way to implement the safeguards provision. Article I of the NPT stated the main purpose in accord with which the treaty was negotiated:

Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.³⁷

Article II expressed the non-nuclear nations' obligation not to accept such weapons or devices.

The main tangible effects of the treaty were embodied

³⁶"Revised Safeguards System of the International Atomic Energy Agency, September 28, 1965," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1965, Publication No. 34 (Washington, D.C.: Government Printing Office, 1966), pp. 446-459.

³⁷"Treaty on the Non-Proliferation of Nuclear Weapons," in U.S., Department of State, United States Treaties and Other International Agreements, TIAS No. 6839, July 1, 1968, p. 5.

in Article III,³⁸ in which each party agreed to begin safeguards negotiations with the IAEA within 180 days of ratification. A most controversial aspect of Article III was the non-specification of what form the safeguards would actually take.

Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the IAEA in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system. . . .³⁹

Safeguards were not to preclude other international cooperation dealing with nuclear energy nor were they to prevent economic or technological progress of the state by their implementation. The IAEA does not have the power to look into possible secret activities within a nation involving nuclear affairs.⁴⁰

Previously the IAEA safeguards provisions had been mainly academic for most of the world. On July 1, 1968, the NPT was ratified by fifty-seven nations, including some that were not members of the United Nations. Suddenly, the final form of the safeguards agreement became vitally important.⁴¹

³⁸For an excellent discussion of the events leading up to the adoption of Article III, see Kramish, "Die Bewachten und die Unbewachten: die Inspektion im Atomsperrvertrag," esp. p. 55.

³⁹"Treaty on the Non-Proliferation of Nuclear Weapons," p. 5.

⁴⁰McKnight, "International Regulation of Science and Technology," p. 750.

⁴¹Total agreement has not yet been reached about the ultimate form of safeguards, but signs indicate that provisions will soon be accepted.

Several points of contention have arisen from the international agreement. One of the first was a grave doubt about the efficacy of the IAEA as the implementing institution. Due to its unspectacular history, many nations viewed the Agency's role with misgivings.⁴² Also, since the five nuclear powers are not bound to undergo inspections, there has been great concern among non-nuclear states relatively advanced in nuclear technology and its application, such as Japan and the BRD, that one-sided espionage involving new processes and economically important developments could easily occur during inspections.⁴³ Exposure of industrial secrets would uncomfortably infringe upon the inspected nations' interests, so the possibility of international access to national records was disconcerting.⁴⁴

A related fear was that inspections could slow down or increase the expense of some operations to the point where it would be economically crippling for the nuclear industry.⁴⁵ In any case, inspection costs appeared to rise with effectiveness.⁴⁶

⁴²Curtin Winsor, Jr., "The Nonproliferation Treaty: A Step Toward Peace," Orbis, XII (Winter, 1969), 1009.

⁴³Robert Ranger, "Death of a Treaty: A Diplomatic Obituary?" International Relations, III (April, 1969), 493.

⁴⁴Kramish, "Die Bewachten und die Unbewachten: die Inspektion im Atomsperrvertrag," p. 61.

⁴⁵Winsor, "The Nonproliferation Treaty: A Step Toward Peace," p. 1009.

⁴⁶George H. Quester, "The Nonproliferation Treaty and the International Atomic Energy Agency." International Organization, XXIV (Spring, 1970), 164.

According to Arnold Kramish, however, those nuclear nations like Britain and the United States who agree to allow IAEA safeguards over their commercial installations are likely to be in a situation more compromising to their sovereignty than those whose entire systems would be inspected. The emphasis of IAEA safeguards has been directed toward preventing material under IAEA control from gravitating to the uncontrolled sector of the economy. Thus a closer watch would be required in those cases where the two sectors existed.⁴⁷

A prime point of disagreement during treaty negotiations was the early question of the role of Euratom safeguards under the IAEA treaty. With the declining efficacy of the European organization, the safeguards provisions had remained one of the more useful provisions of the Euratom treaty. If the IAEA safeguards were to pertain to individual members rather than to the organization, the equal status of the members would no longer exist. France, being a nuclear nation, would not be covered under the provisions of the NPT safeguards, whereas at least some of its commercial nuclear activities were being covered by the Euratom system.⁴⁸ On October 31, 1967, Euratom declared that its safeguards would not be dissolved under an IAEA system, and

⁴⁷Kramish, "Die Bewachten und de Unbewachten: die Inspektion im Atomsperrvertrag," p. 70.

⁴⁸Gerhard Wettig, "Soviet Policy on the Nonproliferation of Nuclear Weapons," Orbis, XII (Winter, 1969), 1072.

that if any extra controls were to be applied, they could cover just fissionable materials, not scientific research.⁴⁹ Conceding the Euratom standpoint on one account, the provision for multi-lateral agreements was included in Article III of the NPT. After the concession, the non-nuclear members of the Community agreed to ratify the treaty only after an agreement was negotiated with the IAEA allowing the Euratom safeguards procedures to stand.⁵⁰

IAEA safeguards differ from those of Euratom in that the actors are to be the national governments, not the individual entrepreneurs engaged directly in the manufacturing process. The acceptance of safeguards is considered to be implicit in the purchase of loan of nuclear materials which are already under IAEA jurisdiction. Material, not geography, is the basis for inspections,⁵¹ unless it travels to a nuclear nation which is exempt from control.⁵²

A potential problem foreseen by the Deputy General Counsel of the United States Arms Control and Disarmament Agency is that a quarter of the countries that have begun negotiations with the Agency under the Treaty are not IAEA members. Disputes about

⁴⁹William R. Van Cleave, "The Nonproliferation Treaty and Fission-Free Explosive Research," Orbis, XI (Winter, 1968), 1056-1057.

⁵⁰Wettig, "Soviet Policy on the Nonproliferation of Nuclear Weapons," p. 1072.

⁵¹Gupta, "Die Überwachung der friedlichen Atomtechnik," pp. 28-29.

⁵²John P. de Gara, "Nuclear Proliferation and Security," International Conciliation, No. 578 (May, 1970), p. 17.

equality and fairness of safeguards provisions could thus prove difficult whether or not such countries as the German Democratic Republic, for example, obtain membership and therefore international recognition.⁵³

With all consideration for the scope of the NPT it has neglected the technology of fusion⁵⁴ in its provisions. The omission may stem from the reluctance of the IAEA to extend its control into areas of research, the assumption that nuclear capability will necessarily have its origins in fission rather than directly in fusion, and the beliefs of some that fusion will not have a big part to play in the development of nuclear weaponry.⁵⁵ It would probably be diplomatically impossible for nations to agree to regulation of this touchy area in an unproven field.

The IAEA system may well turn out to be less comprehensive or productive than hoped by the formulators of the NPT. But as Walter Goldstein states:

⁵³Charles N. Van Doren, "U.N. Involvement in Disarmament: The Case of the Non-Proliferation Treaty," American Journal of International Law, LXIV (September, 1970), 193. See also Paul C. Szasz, The Law and Practices of the International Atomic Energy Agency, Legal Series No. 7. (Vienna: International Atomic Energy Agency, 1970), esp. p. 638, fn. 40.

⁵⁴"In contrast to fission explosives, which have used kilogram quantities of plutonium and enriched uranium derived from reactors and isotopic separation plants that are relatively few in number and thus subject to safeguards, pure-fusion weapons could use gram amounts of heavy hydrogen, which is more easily and surreptitiously obtainable--and may permit much cheaper devices." Van Cleave, "The Nonproliferation Treaty and Fission-Free Explosive Research," p. 1058.

⁵⁵Ibid... p. 1057.

If a treaty can simultaneously suppress the proliferation of nuclear weapons, deflect some of the fears and aspirations of non-nuclear nations, and eventually break the log-jam of arms control negotiations, it surely does not matter if the treaty appears at first sight as a symbol or parchment gesture. Indeed, it can be argued that all international treaties are symbolic gestures or "parchment barriers."⁵⁶

The Nonproliferation Treaty is of vital importance. Will the provisions succeed with particular respect to the Federal Republic of Germany? There would seem to be three important factors. If the safeguards provisions are actually useful in stopping proliferation, they will do so through the threat of detection, not merely through deterrence. Thus the safeguards system must perform at a level ensuring accurate detection. Second, if the objections to the safeguards provisions due to their effect on the peaceful uses of atomic energy are justified, the treaty will disintegrate. And most important of all, national security interests must not be compromised or infringed upon by implementation of safeguards.⁵⁷

⁵⁶Walter Goldstein, "Keeping the Genie in the Bottle: The Feasibility of a Nuclear Non-Proliferation Agreement," Background [now International Studies Quarterly], IX (August, 1965), 145.

⁵⁷Winsor, "The Nonproliferation Treaty: A Step Toward Peace," p. 1004.

CHAPTER II

FROM WEST GERMAN STATEHOOD
TO THE NUCLEAR TEST-BAN TREATYThe 1950's

On May 23, 1949, West Germany adopted a provisional constitution, the Grundgesetz (Basic Law). At the time the nation was still occupied, there was as little mention of the word "atom" as of "rearmament." But with the rearmament which did take place in 1954-1955, atomic affairs were reintroduced into German policy.

Ten years after the end of the war, atomic researchers were cautiously permitted to return to work.⁵⁸ Prior to this time such important figures as Otto Hahn and Werner Heisenberg became self-imposed exiles in order to do nuclear physics research.⁵⁹ The Bundesrepublik's entry into NATO and the signing of the Paris Protocols amending the Brussels Treaty and establishing the Western European Union on October 23, 1954, could hardly have been encouraging to German physicists. Almost all of the world's information in the nuclear field was the direct or indirect result of military research, so it was con-

⁵⁸Alistair Horne, Return to Power (New York: Frederick A. Praeger, 1956), p. 311.

⁵⁹Ibid., p. 317.

sidered a blow when the BRD declared: "The Federal Republic undertakes not to manufacture in its territory any atomic weapons, as detailed in paragraphs I, II, and III of the attached list. . . ." It was of little consolation to scientists that:

This list comprises the weapons defined in paragraphs I to III and the factories earmarked solely for their production. All apparatus, parts equipment, installations, substances and organisms, which are used for civilian purposes or for scientific, medical and industrial research in the fields of pure and applied science shall be excluded from this definition.⁶⁰

The West Germans have again and again pointed to their accession to this treaty and its inspection system with pride and also with insistence. The adherence of the BRD to its provisions detracts from statements of Eastern countries calling West Germany militaristic and bent on the acquisition of nuclear weapons for aggressive purposes.

After the ratification of the treaty and the BRD's somewhat reluctant rearmament had led the Republic to a place in NATO, the Soviet Union began to make it quite clear that the question of German unity was inextricably linked to disarmament and arms control.⁶¹ The Russians were extremely concerned that a reunited Germany never again threaten Soviet territory. Thus the Soviet Union emphatically maintained that

⁶⁰"Paris Protocols Amending the Brussels Treaty and Establishing the Western European Union," pp. 161-167.

⁶¹Wolfram F. Hanrieder, West German Foreign Policy 1949-1963 (Stanford: Stanford University Press, 1967), p. 77.

total disarmament and reunification were two sides of the same coin.⁶² The response of an apprehensive West German government was defensive, and from that time the BRD, too, behaved as if the two concepts were closely linked.

As a result of the interconnections between disarmament and the political division of Germany, the government of the Federal Republic took a tough stand on the numerous suggestions for disengagement and partial disarmament that were propounded throughout 1956.⁶³ Germany became more determined to have some sort of control over her nuclear protection, and as a result, the number of disengagement proposals from other countries increased.⁶⁴ At that time, national security and atomic might were held to be inseparable, especially to a country bordering the Iron Curtain. On the other hand, eastern European fears led to increased demands for a completely disarmed area which would include all of Germany.

Also in 1956 the Federal Republic of Germany entered into a standard form research agreement with the United States to exchange help in the area of nuclear research.⁶⁵ Franz-Josef

⁶²For a detailed look at the postwar measures exemplifying this motivation, see Wolfgang Leonhard, Die Revolution entlasst ihre Kinder (Frankfurt am Main: Ullstein Bucher, 1963), esp. pp. 227-234.

⁶³See Hedley Bull, The Control of the Arms Race, Studies in International Security, II (2d ed.; New York: Frederick A. Praeger, Inc., 1965) for a review of disarmament proposals at this time and since.

⁶⁴Hanrieder, West German Foreign Policy, p. 174.

⁶⁵Ernst Georg Leube, Völkerrechtliche Rahmenverträge mit

Strauss (CSU), formerly Minister of Atomic Affairs, was named to the post of Defense Minister, replacing Theodor Blank. It was Strauss who, in conjunction with Chancellor Konrad Adenauer, made the first tentative overtures at the end of the year for an increased German nuclear role. To explain the shift, the Government declared that a greater West German conventional force would make the United States less likely to use nuclear weapons to defend Germany, and thus the use of Germany as a battleground would be even more probable in the event of war. Pointing to other countries, Bonn noted that the Radford Plan, the French involvement in Algeria, the reduction of length of conscription in Belgium, and increased British emphasis on nuclear forces made a better nuclear defense of the BRD more important than before. If the Bundesrepublik received some voice in the deployment and use of such weapons, the United States would almost certainly be tied to the defense of West Germany, a situation the BRD was most anxious to bring about.⁶⁶ Uncertain about the use of atomic weapons in any future war, the West Germans were trying desperately to cover their exposed flanks as a security measure.⁶⁷

privatrechtlichen Ausfüllungsgeschäften, Studien zum internationalen Wirtschaftsrecht und Atomenergierecht, Band 33 (Göttingen: Institut für Völkerrecht der Universität Göttingen, 1967), p. 61.

⁶⁶Wolfram F. Hanrieder, The Stable Crisis: Two Decades of German Foreign Policy (New York: Harper & Row, 1970), pp. 11-15.

⁶⁷Hans Speier, German Rearmament and Atomic War (White Plains, N.Y.: Row, Peterson & Co., 1957), p. 95. Speier gives a general discussion of the BRD's interest in this area up to 1956.

Complicating the picture was the awakening of West German industry to the attractiveness of the peaceful atom. Electricity consumption was increasing as coal reserves decreased. Great Britain, with a similar problem, had already begun to plan on atomic power for energy production. In 1955, the German Federal Government had created a Ministry for Atomic Affairs under Strauss.⁶⁸ Restricting itself to coordinating the programs of individual entrepreneurs, the Ministry welcomed the creation of the Deutsche Atomkommission to coordinate feasible programs for the peaceful atom prior to encountering the government.⁶⁹ By 1956 this Atomkommission of businesses interested in taking advantage of the atom (mainly those in coal, oil, and related industrial areas) had pledged DM 100,000 each to get the atomic program off the ground.⁷⁰ The total amount raised involved more funds than the entire federally operated budget. Thus the pattern of competition among firms and Länder became better established,⁷¹ and it has resisted

⁶⁸Horne, Return to Power, pp. 317-19.

⁶⁹K. Winnacker, "Bundesrepublik Deutschland: Breites Programm--Wachsender Markt--Offener Wettbewerb," Atomwirtschaft, X (September, 1965), 250-51.

⁷⁰Part of the motivation behind the move lay in the difficulties of importing petroleum products. See Lindberg and Scheingold, Europe's Would-be Polity, esp. pp. 202-207.

⁷¹The BRD operates under a federal system similar to that of the U.S., with central government control over national and international matters and Land (similar to state) control over regional matters. Firms within a Land bring money and prestige to the area, and thus industry is fought over by competing Länder.

later attempts to coordinate centralized planning.⁷²

Still, the infant German industry was having difficulties learning how to crawl, much less run away in the direction of weapons production. A case in point was that of the first atomic reactor to be installed in the BRD. As early as 1956, the Rheinisch-Westfälisches Elektrizitätswerk A.G., advertised for bids on a fifteen megawatt power plant. Bureaucratic difficulties prevented accepting any bids for that year and the next.⁷³ At this time it was remarked that industry was not well entrenched in the Bundestag, and with regard to foreign policy in general it had little to say.⁷⁴ This quiescence was definitely detrimental to the burgeoning atomic program.

While the private industry experienced a frustrating delay, the Government was busying itself in the international sphere. In 1957 and 1958, the increase in German interest was seen in the agreement on additional nuclear treaties with the United States, Britain and Canada. Instead of "Research Agreements," these contracts were now known as "Power Agreements," and included provisions for exchange, albeit still one-sided, of fuel and reactors directed toward the economic use of atomic power rather than pure research. All three countries were

⁷²Horne, Return to Power, pp. 319-20.

⁷³Nehrt, International Marketing of Nuclear Power Plants, p. 251.

⁷⁴Samuel P. Wahrhaftig, "The Development of German Foreign Policy Institutions," in West German Leadership and Foreign Policy, ed. by Hans Speier and W. Phillips Davison (White Plains, N.Y.: Row, Peterson & Co., 1957), p. 45.

given a say in the use and control of the materials purchased and therefore the treaties had a strong influence in the area of private enterprise. In fact, a major provision of the U.S. agreement was not to make available for private use any material from the United States which private American firms could not get. Buying back some of the products of fission in the BRD was also an option given to the U.S. Very important was the stipulation that private firms could enter into direct agreements with each other, as long as they held to the main points of the treaty frames. A firm wanting to import nuclear fuel from Canada, for example, handed in an application to the Ministry for Scientific Research. When approved, the export materials were delivered directly to the German firm.⁷⁵

Thus it almost seemed as if the Bundesrepublik was rapidly developing a split personality with regard to the splitting of the atom. While the problems of nuclear defense plagued one aspect of German policy, the preoccupation with peaceful and economic uses entertained another. These areas seemed to merge in the early discussion of an atomic energy community for Europe.

During the debate prior to the formation of Euratom, Jean Monnet's Comité d'Action pour les Etats-Unis de l'Europe intensified the debate by finding that the European Community

⁷⁵Leube, Völkerrechtliche Rahmenverträge mit privatrechtlichen Ausfüllungsgeschäften, pp. 61-67, 77-79.

should develop atomic power only for peaceful purposes. On March 22, 1956, the Bundestag accepted this recommendation by voting confidence in the Government to use the Brussels report as the basis for a treaty. Heinrich von Brentano, the BRD's Foreign Minister, agreed to the stipulation that a European Atomic Energy Community would have control over transactions involving nuclear materials within the Community unless the needed articles were unavailable internally or priced higher than in the free market.⁷⁶ In general, the German Federal Government was pleased with the Treaty for the European Atomic Energy Community, and the BRD became an active member, the only state in Euratom with a restriction upon atomic weapons production.⁷⁷

On April 12, 1957, Adenauer's explicit request for a nuclear-equipped Bundeswehr aroused an intense wave of popular German protest. Eighteen scientists flatly declared that they would have nothing to do with the research involved in a German weapons program.⁷⁸

At the beginning of May, the NATO council held a meeting in Bonn. A week later, during the Bundestag debates, Defense Minister Strauss attempted to calm domestic and

⁷⁶F. Roy Willis, France, Germany, and the New Europe, 1945-1963 (Stanford: Stanford University Press, 1965), pp. 250-51.

⁷⁷Lincoln Gordon, "NATO and European Integration," World Politics, X (January, 1958), 227.

⁷⁸Karl W. Deutsch and Lewis J. Edinger, Germany Rejoins the Powers (Stanford: Stanford University Press, 1964), p. 258.

international uproar by stating:

The Federal Government . . . is at all times ready to agree to all international agreements--without itself putting forward special claims and thereby making the decisions more difficult--in which the Great Powers find themselves at one. . . . Up to now, the Federal Government has neither desired the equipment of the Bundeswehr with atomic weapons nor has it been offered or urged. It is its expressed desire that this problem should settle itself by the conclusion of a disarmament agreement.⁷⁹

The same day the Bundestag adopted a CDU-CSU resolution urging the cessation of tests by the nuclear powers pending an arms control agreement.⁸⁰

The Chancellor and President Eisenhower met soon thereafter. In the joint communiqué on the May meeting, specific assurances were directed toward the Soviet Union about a resumption of German military strength and/or superiority. Additionally, the need for disarmament efforts in the areas of both conventional and nuclear weapons was stressed, after which such political problems as German reunification could be discussed. However, if such disarmament measures were seriously being contemplated, it would be necessary to solve the reunification problem first. Either path was open. It was stressed that a United States decision on European arms control would not be forthcoming without NATO agreement, and that the German

⁷⁹Federal Republic of Germany, Press and Information Office, Germany Reports, ed. by Helmut Arntz (3rd ed.; Bonn: Press and Information Office, 1961), p. 208.

⁸⁰Federal Republic of Germany, Deutsche Bundestag, Verhandlungen, 209. Sitzung (May 10, 1957), pp. 12051D-12138A.

question would be carefully considered in all cases.⁸¹ Two months later, the American, British and French ambassadors joined the BRD in stating that the conclusion of a European agreement on security coupled with the resolution of the question of reunification would "facilitate" moves toward disarmament. Again the converse was also stated as a possibility. In essence, the British and French had joined the Federal Republic and the United States in their political stipulations right down the line.⁸²

On October 2, 1957, the Rapacki plan for a denuclearized central Europe was proposed to the General Assembly of the United Nations. Anxious about world reaction, Strauss soon announced that the German Army would not receive atomic weapons "in the near future."⁸³

In 1958 the United States was still debating the wisdom of German nuclear armament. One alternative some observers favored was the realization that the lesser powers could make conventional contributions and yet could in return receive such

⁸¹"Communiqué and Joint Declaration by President Eisenhower and the German Chancellor (Adenauer), May 28, 1957," in U.S., Department of State, Documents on Disarmament, 1945-1959, Vol. 11, Publication No. 7008 (Washington, D.C.: Government Printing Office, 1960), pp. 787-90.

⁸²"Berlin Declaration by the Foreign Minister of the Federal Republic of Germany and the American, British, and French Ambassadors, July 29, 1957," in U.S., Department of State, Documents on Disarmament, 1945-1959, Vol. II, Publication No. 7008 (Washington, D.C.: Government Printing Office, 1960), pp. 834-37.

⁸³Deutsch and Edinger, Germany Rejoins the Powers, p. 258.

advanced weapons as from time to time the Great Powers heading the alliance may have developed.⁸⁴ But Adenauer had early rejected the Rapacki Plan as discriminatory,⁸⁵ and the Americans hesitated in the light of world opinion that expressed some doubts about the continued efficacy of the American nuclear umbrella.

Raging as never before, the battle between the factions in the Bundestag over the atomic armament issue moved to a climax. On March 25, 1958, the Bundestag resolved:

In conformity with the requirements of this defence system, and having regard to the armament of the possible enemy, the Armed Forces of the Federal Republic must be equipped with the most modern weapons so that they may be able to carry out the obligations assumed by the Federal Republic within NATO and to make an effective contribution to the safeguarding of peace. It is intended that these efforts shall be continued until a general disarmament agreement is brought about.⁸⁶ (Italics are those of the BRD Press and Information Office.)

On June 19, Strauss stated that a reorganization of the military was forthcoming and that it would include American-type battle groups equipped with nuclear weapons.⁸⁷ The eastern bloc reacted strenuously.⁸⁸

⁸⁴Arthur L. Burns, Power Politics and the Growing Nuclear Club, Policy Memorandum No. 20 (Princeton: Center of International Studies, 1959), p. 6.

⁸⁵Deutsch and Edinger, Germany Rejoins the Powers, p. 258.

⁸⁶Federal Republic of Germany, Press and Information Office, Germany Reports, p. 209.

⁸⁷Deutsch and Edinger, Germany Rejoins the Powers, p. 258.

⁸⁸See Herbert Bertsch, Die FDP und der deutsche Liberalismus, 1789-1963 (Berlin: VEB Deutscher Verlag der Wissenschaften, 1965), esp. pp. 387-389.

But passage of the resolution had not cut off debate on the issue. It was not important at the time whether the authorized nuclear weapons could actually be obtained, but whether or not the principle was acceptable to the German people. The Bund der Deutschen Industrie, a group of leading German industrialists, had on the one hand fought the central planning concept with regard to Euratom.⁸⁹ On the other, they now opposed the attempt by the Social Democratic Party (SPD) to have a popular referendum on this issue.⁹⁰

The idea behind a referendum was one of desperation on the part of the SPD. Since 1956, a movement called "Kampf dem Atomtod" had been promoted by the SPD to oppose any West German involvement with nuclear weapons. In 1957 the party had become suspicious of CDU-CSU motivations and had warned the public about the possibility of nuclear armament of the Bundeswehr.⁹¹ Now nuclear arms were practically a certainty unless the law could be revoked.

Academic figures and religious leaders as well as the labor unions were of the same mind as the Opposition, but the forces were not able to launch a concerted effort in what became a test of the Basic Law. The unions, however, did imply that there was the danger of a general strike if the referendum were

⁸⁹Gerard Braunthal, The Federation of German Industry in Politics (Ithaca, N.Y.: Cornell University Press, 1965), p. 320.

⁹⁰Ibid., p. 294.

⁹¹Harold K. Schellenger, Jr., The S.P.D. in the Bonn Republic: A Socialist Party Modernizes (The Hague: Martinus Nijhoff, 1968), p. 53.

not held. In April, the SPD introduced a bill to authorize a referendum.⁹² The Government party opposed the idea with the argument that it would weaken NATO if the BRD decided to oppose a NATO suggestion. Moreover, the BRD would then have to continue in a weak defensive posture vis-à-vis the Soviet Union, which already had nuclear capability. Finally, the CDU-CSU maintained that the decision about nuclear armament could only be made constitutionally within the Bundestag, not through a referendum.

With only the SPD voting in favor (the FDP abstained), the proposal for a national referendum was defeated. Undaunted, party faithful began to organize local referenda, and some were actually held, defeating the Government's proposal.⁹³ The opposition of the SPD and the Free Democrats (FDP) had not sufficed to prevent the Bundestag's resolution, but the overwhelming opposition of the German people would certainly have been great enough to cause its failure in a popular referendum. The margin of defeat in the local referenda held in Hesse supports this.

⁹²The two questions were: (1) Do you agree that the Bundeswehr should be equipped with atomic warheads? and (2) Do you agree that launching-bases for atomic warheads should be built in the Federal Republik? For further texts of SPD position papers at this time, see Theodor Eschenburg, Zur politischen Praxis in der Bundesrepublik, Vol. I (2d ed.; Munich: R. Piper & Co., 1967), pp. 54-63.

⁹³Willy Brandt, then mayor of occupied West Berlin and an SPD member, refused to allow a referendum in Berlin.

After due deliberation, with the Länder governments as well as the Federal Government participating, the Supreme Court ruled on July 30, 1958, in favor of the Government's position. No referenda on such an issue could be permitted.⁹⁴

U.S. business was beginning to have second thoughts about the prospects of European atomic industry. Public opposition to nuclear affairs was not mentioned, but one business group saw the picture in these terms:

Prospects for building nuclear power plants abroad may be hampered more by sheer lack of financing capital, accentuated by the higher capital investment required for nuclear than for conventional plants. This may apply even where nuclear costs may prove competitive on an overall basis . . . Shortages of personnel trained in reactor technology may limit the size of nuclear programs that might be undertaken.⁹⁵

By July 2, 1958, the Bundestag passed the Atom Law which eventually resulted in a constitutional amendment permitting the development and use of nuclear energy. At the time, the Rheinisch-Westfälisches Elektrizitätswerk, A.G. (RWE) had decided upon a reactor (Supra, p. 36). A final contract was signed with General Electric in October, 1958. General Electric was already building the same type of reactor in Illinois, and thus could begin concrete planning upon the closing of the contract.

⁹⁴Gerard Braunthal, "Direct and Representative Democracy in West Germany: The Atomic Armament Issue," Canadian Journal of Economics and Political Science, XXV (August, 1959), 313-20.

⁹⁵Pickard-Warren Lowe Associates, A Growth Survey of the Atomic Industry, 1958-1968, ed. by Edwin A. Wiggin (New York: Atomic Industrial Forum, 1958), p. 47.

The Bavarian government had passed an atomic law on July 13, 1957, on which the construction license had been obtained, but it was not comprehensive enough. Finally, in December, 1959, a federal law was passed which gave the authority for nuclear plant licensing to the Federal Government. With the passage of this law, the Ministry for Atomic Affairs decided that in addition to the Land of Bavaria, where the plant was located, the Federal Government would also review the reports about hazards made by the operator. Overriding the Bavarian license, the Ministry allowed sub-licenses which were valid only for certain stages of operation. For instance, permission for full-power operation was not granted for a year after the plant was opened.

Fuel also proved to be a continuing problem, partially cancelling out benefits from the cost and speed factors which had figured prominently in GE's selection. The BRD as yet had no laws covering third-party liability in the atomic sphere. Apprehensive that there might be no such law forthcoming, a legitimate worry due to possible negative spillover from the nuclear armament issue, GE refused to ship fuel until the German government provided liability coverage. The German firm could not turn elsewhere for the fuel without invalidating the plant guarantees given by General Electric. To add to the difficulties, the new federal law that was finally passed entertained a number of ambiguities about liability which needed resolution. GE finally decided that the liability clause under the Organization

for European Economic Cooperation would protect them from responsibility in the case of an accident.

Bremen still did not allow the ship carrying the first load of nuclear material to dock, and thus it had to berth at Nordenham, after a voyage beset with similar difficulties. In addition, the Government required the company to provide a special train with police protection. All in all, concluding the first such international commercial atomic venture proved more costly to the United States and German firms than had been anticipated.⁹⁶

The Early Sixties

With the advent of the 1960's, the problem of adverse international opinion, especially from eastern European countries, plagued Bonn again. The Soviet Union was demanding that Germany disarm itself and thus give tangible proof that its intentions were peaceful. Adenauer had a ready answer. In a letter to Nikita Khrushchev in January, 1960, the Chancellor specifically denounced the idea that the German Federal Government, with its negligible weapons capability compared to the two great powers, should give prior guarantees before a general disarmament agreement was reached. He rejected the criticism of the Russians that the German Government stipulated political

⁹⁶Nehrt, International Marketing of Nuclear Power Plants, pp. 264-69.

preconditions to a disarmament agreement.⁹⁷ But European security and reunification would remain linked in West German Policy until the end of the Adenauer era.⁹⁸

The SPD still favored one plan with which Adenauer disagreed. The so-called Deutschland Plan called for bilateral disengagement and withdrawal of foreign troops from central Europe and provided for inspections. As an accompaniment to these moves, both Germanies would leave their respective military alliances. The security collective would be headed by the United States and the USSR, who would provide the guarantees behind the plan.⁹⁹

The military stirred the political waters in August, 1960, with an announcement from the High Command of the Bundeswehr:

So long as efforts towards general disarmament, of which the Bundeswehr approves, are not successful, the latter is obliged to maintain its requirements aimed at ensuring effective defense, for the aggressor, intent on violence, leaves it no other choice. The Bundeswehr must be as effectively armed as the other allied forces making up the shield of NATO. The armament of the forces making up this shield must be uniform and have the same power as that of the potential enemy; otherwise the aggressor would

⁹⁷Konrad Adenauer, Letter to Premier Khrushchev (Extracts), January 8, 1960" in U.S., Department of State, Documents on Disarmament, 1960, Department of State Publication 7172 (Washington, D.C.: Government Printing Office, 1961), pp. 1-4.

⁹⁸E. H. Albert, "The Brandt Doctrine of Two States in Germany," International Affairs (London), XLVI (April, 1970), 295.

⁹⁹Schellenger, The S.P.D. in the Bonn Republic: A Socialist Party Modernizes, p. 169. It is interesting to note that Willy Brandt expressed some reservations about the plan.

concentrate his offensive on the most weakly armed units. It is therefore indispensable for the forces of the shield to have atomic arms. If our own troops had to fight without atomic weapons, the aggressor would have no difficulty in overwhelming the European defense.¹⁰⁰

Many, especially the SPD and members of the press, felt this was overstepping the boundary between the military and policy-making sectors of the society.¹⁰¹

Meanwhile, the Government welcomed the resumption of disarmament negotiations. It was especially pleased since its official policy had long been that "controlled disarmament is in itself desirable and necessary and, on the other hand, it is conscious of the reciprocal effect undoubtedly existing between disarmament, relaxation of tension and reunification."¹⁰²

In 1959, the BRD's budget had included DM 42,220,000 (\$10 million) for Euratom.¹⁰³ Reciprocally, Euratom closed an agreement with the nation in late 1960 to build a nuclear research center in Karlsruhe, which was welcomed. Due to an explicit reference to plutonium research studies at this center, the international sphere was no doubt somewhat uneasy.¹⁰⁴

¹⁰⁰Cited in Jacques Freymond, "European Views on Arms Control," in Arms Control: Issues for the Public, ed. by Louis Henkin, Spectrum Books (Englewood Cliffs, N.J.: Prentice-Hall for the American Assembly of Columbia University, 1961), p. 49.

¹⁰¹Eric Waldman, The Goose Step is Verboten: The German Army Today (New York: Free Press of Glencoe, 1964), p. 200.

¹⁰²Federal Republic of Germany, Press and Information Office, Germany Reports, p. 209.

¹⁰³Ibid., p. 495.

¹⁰⁴H. Blank, "Das Europäische Institut für Transurane, Karlsruhe," Neue Technik, VI (October, 1964), p. 259.

The BRD's reply to the note verbale of the Secretary General of the United Nations in September, 1961, showed that West Germany was seriously considering the possibility of complete disarmament. The Government concluded that the economic consequences of a worldwide disarmament move would be minimal, and in fact, beneficial to the economy of the Federal Republic.¹⁰⁵ The vacillation of the views of the BRD and the Soviet Union about the preconditions to disarmament, which precluded agreement on a plan, was probably evidence of lack of a consistent underlying position on the parts of both nations rather than a deliberate policy decision.¹⁰⁶

With the approach of a disarmament agreement, officials were anxious to show their support. One reason for the seeming shift was the disarmament negotiations; another was growing western concern about the Nth country problem, according to which the proliferation of nuclear weapons to one more country would result in a conglomeration of small atomic powers.¹⁰⁷

¹⁰⁵Federal Republic of Germany, "Reply to the Note Verbale of the Secretary-General of the United Nations of September 22, 1961," regarding disarmament, undated, in United Nations, Department of Economic and Social Affairs, Economic and Social Consequences of Disarmament, Vol. II: Replies of Governments and Communications from International Organizations (New York: United Nations Publications, 1962), p. 87. No. E/3593/Rev. 1/Add. 1-5

¹⁰⁶Helmut Schmidt, Defense or Retaliation: A German View, trans. by Edward Thomas (New York: Frederick A. Praeger, Inc., 1961), p. 133.

¹⁰⁷See Christoph Hohenemser, "The Nth Country Problem Today," in Disarmament: Its Politics and Economics, ed. by Seymour Melman (Boston: American Academy of Arts and Sciences, 1962).

Schröder cautiously advocated total disarmament maintaining the present balance of power. Aware that the hands of the BRD were tied at the moment in the matter of initiating disarmament measures, he flatly stated that in any case "the German Federal Republic has no atomic warheads at its disposal and does not want them."¹⁰⁸

By 1962, Bonn's interest in alternatives to a national nuclear force had focused on joint nuclear planning rather than control that could not be had.¹⁰⁹ Part of the motivation behind the change in focus was the international approval of the test ban negotiations.¹¹⁰ The Germans approached the concept of some sort of multilateral force within NATO with enthusiasm, as opposed to the idea of an inter-allied nuclear force, which was realistically seen as more likely.¹¹¹ Whether a forward or forward-pause defense would be used in case of an attack on Germany was a question lending insistence to the German claims

¹⁰⁸Gerhard Schröder, "Speech to the Foreign Political Working Group of the CDU Party Congress in Dortmund on July 4, 1962," in Decision for Europe, ed. by Alfred Rapp, trans. by D. J. S. Thompson (London: Thames & Hudson, 1964), p. 194.

¹⁰⁹Hanrieder, The Stable Crisis: Two Decades of German Foreign Policy, p. 15.

¹¹⁰For the BRD's Viewpoint, see Wilhelm Cornides, "Das Moskauer Moratorium und die Bundesrepublik," Europa-Archiv, XVIII (August 25, 1963), 583-92.

¹¹¹Gerhard Schröder, "Speech at a Press Conference in Paris on April 10, 1963," in Decision for Europe, ed. by Alfred Rapp, trans. by D. J. S. Thompson (London: Thames & Hudson, 1964), p. 232.

for a say in nuclear affairs.¹¹²

The nuclear test-ban treaty was signed also by the German Democratic Republic (GDR), an international event which tended to dissociate the concept of reunification from disarmament with a stroke of the pen. Not only was the GDR recognized, but a de facto recognition of the Federal Republic by the USSR and the GDR was implied.¹¹³

Peaceful atomic power had taken another step forward when on July 12, 1960, the Forum Atomique Européen (Foratom) was founded. Not solely a governmentally based organization, its members were either industrial or state bodies from fifteen nations. The aim was similar to that of Euratom, to develop the peaceful use of atomic energy, but life was infused into this structure by its predominantly industrial viewpoint.¹¹⁴

The civilian nuclear industry was continuing to develop, and German hopes for nuclear parity in the peaceful field were high. The West Germans and the Dutch were working on the centrifuge method of isotope separation in the hopes of discovering

¹¹²See H.B. Malmgren, "A Forward-Pause Defense for Europe," Orbis, VIII (Fall, 1964), 595-606. The question centered around whether, in event of attack, the Americans would immediately retaliate with nuclear arms or whether a period of conventional warfare would first ensue. Since combat would be on German territory, it is no wonder the Germans were apprehensive.

¹¹³Karl Kaiser, German Foreign Policy in Transition: Bonn Between East and West (London: Oxford University Press for the Royal Institute of International Affairs, 1968), p. 28.

¹¹⁴Federal Republic of Germany, Press and Information Office, Bulletin, XIII (October 12, 1965), p. 5.

a workable and economical process. The market for such centrifuges would be large, since the cost of isotope separation would be less than by conventional methods. The uranium isotopes thus obtained would be suitable not only for peaceful programs, but also for weaponry.¹¹⁵ Pressure on the two countries from the United States and Britain to restrict the information about the process, which the two nations had previously deemed unfeasible, forced the BRD and the Netherlands to agree to classify the information, although some economic advantage was thereby lost.¹¹⁶ Brazil and Egypt had bought models from the BRD and Cuba and China had already ordered centrifuges when the checks were imposed.¹¹⁷

During the first phase of political and economic development of the use of nuclear energy, the interrelationship of the German role in arms control,¹¹⁸ the question of some sort of NATO nuclear force,¹¹⁹ and serious discussions about a European nuclear role separate from that of NATO¹²⁰ all showed that the

¹¹⁵Beaton and Maddox, The Spread of Nuclear Weapons, p. 8. Centrifuge separation would enable countries with relatively small programs to produce a measure of their own enriched fuel. Conventional diffusion procedures involve large installations and operate on a large volume of material.

¹¹⁶Ibid., pp. 43-44.

¹¹⁷Stanley L. Harrison, "Nth Nation Challenges: The Present Perspective," Orbis, IX (Spring, 1965), 161.

¹¹⁸See Wilhelm Cornides, "L'Allemagne et les Négociations sur la Maîtrise des Armements," Politique Etrangère, XXIX (1964) pp. 45-61.

¹¹⁹See J. I. Coffey, "A NATO Nuclear Deterrent?" Orbis, VIII (Fall, 1964), 584-94.

¹²⁰See Alastair Buchan, "Für und wider eine europäische

country still maintained a deep concern about the question of nuclear defense by 1964. The time was ripe for a definite directional decision, and the elites were certainly going to be involved.

Elite and Mass Opinion

Neither technological growth nor political considerations develop in a vacuum. In West Germany, as in other democratic countries, the public as well as the decision making elite has opinions about the place of nuclear affairs within the nation. Few persons have actual decision-making power within a state. Those who do are influenced by major community values, institutional patterns, characteristics of social organization, role differentiation, group functions, kinds of groups to which they belong and which are influential within the society, socialization, opinion formation and, of course, many political factors.¹²¹ They are also differentiated from the masses in that their primary goals are related to these factors by their actions and their decisions. It is almost a truism that those most articulate in support of or in opposition to the values and patterns

nukleare Streitmacht," Europa-Archiv, XVIII (May 10, 1963), 309-22; and also François de Rose, "Atlantic Relationships and Nuclear Problems," Foreign Affairs, XLI (April, 1963), 497-90. Both deal with the desirability of a separate nuclear force for Europe.

¹²¹Richard C. Snyder, et al., "The Decision-Making Approach to the Study of International Politics," in International Politics and Foreign Policy, ed. by James N. Rosenau (2d ed.; New York: Free Press, 1969), pp. 199-206.

of a society are also its elite members. The action of a nation is by definition the moves performed by the persons assuming responsibility under the appellation of the particular state. To analyze state action, a psychological view of the environment of the decision-maker as well as information from behavioral measures available is necessary.¹²²

In regard to the Bundesrepublik, the establishment of democracy also led to the appearance of a common phenomenon: delegating increasing responsibility to the elite members of the society who command some expertise, not the least of whom are government officials.¹²³ Moreover, as Gabriel Almond stated, "political and social responsibility is an attribute of office. . . . What is more, within these various political structures a strong hierarchical spirit dominates, so that political responsibility and communication tend to be confined to the very heights of these institutions."¹²⁴ The importance of elites within the governmental structure itself, within the economic sphere, and in politically-minded interest groups is self-evident. Even the media elite has a tremendous influence

¹²²Ibid., p. 202.

¹²³Henry J. Kellerman, "Party Leaders and Foreign Policy," in West German Leadership and Foreign Policy, ed. by Hans Speier and W. Phillips Davison (White Plains, N.Y.: Row, Peterson & Co., for the RAND Corporation, 1957), p. 59.

¹²⁴Gabriel A. Almond, "The Politics of German Business," in West German Leadership and Foreign Policy, ed. by Hans Speier and W. Phillips Davison (White Plains, N.Y.: Row, Peterson & Co. for the RAND Corporation, 1957), p. 238.

on many of the factors taken into account by the Snyder-Bruck-Sapin model of decision-making.¹²⁵

The main question deals with the validity of combining elite expressions of opinion about policy to give a collective view of the process behind decision-making. In an analysis of elite data gathered for a study of the outbreak of World War I, Ole Holsti found that:

. . . [W]hen we introduce situation as a variable into the analysis, we have accounted for such a high proportion of the variation in perceptions of hostility that the "unexplained" part which might be attributed to individual differences is extremely small. Conversely, even if we assume that all the within-groups variation is accounted for by differences in personal characteristics . . . the results strongly suggest that these individual differences within nations are small enough to be disregarded.¹²⁶

Holsti was using "perception of hostility" as a variable within the framework of content analysis, but nonetheless, it is welcome evidence for the similarity of elite opinion within states.

Holsti does make an important reservation, however:

. . . [T]he premise that the range of individual variations among foreign policy elites is smaller than that of the general population is eminently reasonable. Yet even if we consider such well-established factors as selective recruitment, group pressures for conformity and the like, this interpretation is not wholly satisfactory. To rely too much upon it would be to deny, in effect, that the process of making external policy is in fact a political one, often marked by conflict among divergent assessments of the situation, values, goals and preferences among strategies.¹²⁷

¹²⁵Werner Feld, Reunification and West German-Soviet Relations (The Hague: Martinus Nijhoff, 1963), pp. 39-40.

¹²⁶Ole R. Holsti, "Individual Differences in 'Definition of the Situation'," Journal of Conflict Resolution, XIV (September, 1970), 305.

¹²⁷Ibid., p. 309.

Bearing this admonition in mind, we shall turn very briefly to consideration of the specific German elite structure. Foreign policy is the prerogative of the executive in the West German parliamentary system. The Ministry of Foreign Affairs, a cabinet-level body, is the go-between for all other ministries and departments of the government which want to make international contacts of some sort. For this reason, the office has normally been quite close to that of the Chancellor in its outlook and direction.¹²⁸ It is partly for the same reason that German policy-making has enjoyed a concentration in the hands of experts.¹²⁹

Gorden and Lerner performed a series of early elite surveys in 1956, 1959, and 1961. Of the approximately one hundred members of the elite sampled in the country, the following categories of group membership were represented: civil servants, media elite, political party leaders, military figures, cultural leaders, professional people including some professors involved directly in politics and trade union representatives. Selections were made by scholars knowledgeable in the area.¹³⁰

When asked in 1959 whether the Government should establish a deterrent or disarmament priority, 70 per cent chose general disarmament and 25 per cent the Western deterrent, with 5 per

¹²⁸Wahrhaftig, "The Development of German Foreign Policy Institutions," pp. 27-28.

¹²⁹Ibid., p. 34.

¹³⁰Morton Gorden and Daniel Lerner, "The Setting for European Arms Controls: Political and Strategic Choices of European Elites," Journal of Conflict Resolution, IX (December, 1965), 421.

undecided. Two years later, 13 per cent were unsure, while 28 per cent opted for deterrence against 59 percent for disarmament. Gordon and Lerner noted that even those choosing disarmament as a first priority did not reject deterrence within the NATO framework during the interview.¹³¹ Exemplifying that trend, those wanting to see the BRD safely ensconced within NATO as opposed to those desiring a neutral, reunified Germany rose a third from 1959 to 1961, while proponents of the alternative fell correspondingly in support during the same period.¹³²

Of social interest was the response of the elite panel to the question of the manufacture of atomic bombs and ballistic missiles. In 1956, a quarter of the sample would have agreed to such a move, while 70 percent opposed it. In 1959 and 1961, those in favor dropped to 9 per cent, while the opposition had increased first to 88 and then to 90 percent, respectively. Missile manufacture, on the other hand, enjoyed a wide margin of support (68 per cent) compared against its opposition (29 per cent).¹³³ An apparent disparity between these results and the support the Chancellor received during the intense 1958 debates could be explained on several grounds. First, the weighting of interest group membership and support was not taken into account in the survey data. Some elite organizations have more power and influence than others, and the variation in these factors undoubtedly had an effect on the aggregate data.

¹³¹Ibid., pp. 423-25.

¹³²Ibid., p. 426. ¹³³Ibid., p. 428.

Secondly, Gorden and Lerner's sample was using recall in a situation where a decision had already been made in the direction of the favorable answer, but also where that decision was being reviewed thoroughly in light of the unfavorable mass reaction and the strong SPD and press displeasure. Through extensive feedback, opinion shifts undoubtedly followed.

Public opinion polls indicated a different configuration of mass opinion regarding reunification and nuclear armament expressed in 1962. In answer to the question, "Should we renounce nuclear weapons for our armed forces in order to achieve reunification, or not?" 42 per cent said yes, 27 per cent no, and 31 per cent were undecided.¹³⁴ This division mirrored the elite problems in the policy area, but the issue was never actually presented to the Government in such a clear-cut manner.

Comprehensive disarmament was obviously considered impossible without some kind of international control, but the hesitation of the elites to place the military aspects of their country under fairly comprehensive international political control showed that they agreed with Lincoln Bloomfield, who maintained that such control was also not possible without complete disarmament.¹³⁵ But between August, 1957, and July,

¹³⁴Elisabeth Noelle Neumann and Erich Peter Neumann, eds., The German Public Opinion Polls 1947-1966, trans. by Gerard Finan (Allensbach and Bonn: Verlag für Demoskopie, 1967), p. 472.

¹³⁵Lincoln P. Bloomfield, "Arms Control and World Government," World Politics, XIV (July, 1962), 645. For some suggestions on how the military balance could be redefined to include

1963, more than half of a sample of West German mass respondents indicated that one of their top three political wishes was that "the big powers will agree on disarmament and stop manufacturing nuclear armaments."¹³⁶

Elite attitudes were also sampled in 1964 by Karl W. Deutsch, Lewis J. Edinger, Roy C. Macridis, and Richard L. Merritt. These scholars focused upon civil service, business, military, political and mass media elites, and "other professional groups." The sample was chosen by expert judges and also by the position of the member of the elite within his or her organizational hierarchy.¹³⁷

Disarmament was also a subject of vital interest at that time. Seventy-six per cent of the elites sampled accepted the possibility of a reduction in international tensions due to disarmament, while only 53 per cent of the mass respondents to a similar question thought that benefits would result.¹³⁸

The question of the multilateral force revealed a different pattern. Forty-six per cent of the elites favored its creation within NATO and 36 per cent were opposed. If the MLF were a

a practical program of arms reduction, see also Carl H. Amme, Jr., "Arms Control Concepts and the Military Balance in Europe," Orbis, VIII (Winter, 1965), 832-53.

¹³⁶Neumann and Neumann, The German Public Opinion Polls, p. 215.

¹³⁷Karl W. Deutsch, et al., France, Germany and the Western Alliance (New York: Charles Scribner's Sons, 1967), pp. 11-12.

¹³⁸Ibid., p. 197.

reality, however, two-thirds favored the participation of the BRD and a fifth did not.¹³⁹ In contrast, of those mass respondents who had heard of plans for the MLF as of December, 1964, only about one fourth believed the BRD should participate, while an equal number was not in favor of the MLF.¹⁴⁰ The reason the matter stayed salient for as long as it did was obviously an elite predilection for a West German voice in some sort of nuclear deterrent set-up, a view corroborated by the attitude of the Government until 1964.

When asked, "Of which arms control and disarmament plans have you heard most?" almost a fourth of the Deutsch panel of elites indicated weapons inspection. Only denuclearization of Europe had a greater percentage of respondents. Weapons inspection drew the highest favorable response as a disarmament method.

Forty-six per cent of the BRD elites responded to a question about more specific inspection systems for disarmament. The findings were of interest in regard to the panel's perception of inspection proposals. Permitted multiple responses, the respondents favored on-site inspection over aerial or electronic inspection and also preferred an inspection system carried out by pact nations over an international agency. Both of these possibilities were deemed preferable to some kind of team of

¹³⁹Ibid., p. 193.

¹⁴⁰Neumann and Neumann, The German Public Opinion Polls, p. 521.

"neutral observers."¹⁴¹

The question of the role of BRD in negotiations regarding atomic armament (for example, those similar to the limited test-ban treaty of 1963) opened a new window on elite attitudes.

"Should Germany be consulted?" Three-fourths of the respondents replied in the affirmative and only 9 per cent in the negative. These results would not seem at variance with expectation. If West Germany were barred from the deliberations, almost the same number still expressed support, but now about one fifth, almost double the previous proportion, would not. In fact, almost all opponents said definitely not.¹⁴²

With direct reference to a national nuclear force for the Federal Republic itself, the elites seemed unequivocal in their opposition. They agreed that a national nuclear force is a vital part of a country's security system and standing in the world power structure. But when questioned directly about the applicability of this opinion to the BRD, the panel dismissed the problem of independence with regard to their country, tending to make a national force irrelevant. According to the interviewees, the BRD was not considered in the same league with the two great powers; independence was not a real possibility in today's technological world; or the goals of the country were held to be integration within an international system which

¹⁴¹Deutsch, et al., France, Germany and the Western Alliance, pp. 199-201.

¹⁴²Ibid., p. 202.

would eventually compromise a sense of national independence in any case. Nor would a national force be credible to the country's enemies, they believed. Many such arguments were expressed against the creation of such a force, and the conclusion must be that this was the consensus of the German elite at the time.¹⁴³

In short, the BRD seemed very reluctant to indicate an interest in national nuclear weapons, but it did not feel secure enough in its proximity to eastern Europe to forego nuclear protection, preferably over which it could exercise some control. The leadership elites and the masses had slightly different opinion configurations on the issue, which would have made it disastrous for the Government to take a more militaristic stance in 1964-1965 than it already had taken back in 1958.

¹⁴³Ibid., pp. 190-92.

CHAPTER III

THE PRE-NPT PERIOD IN THE FEDERAL REPUBLIC

The year 1965 held great promise for the businessmen in the nuclear industry.¹⁴⁴ The head of the department for nuclear research and technology in the Federal Ministry for Scientific Research, Dr. Joachim Pretsch, outlined the plans for the future peaceful development of nuclear energy. Already under construction were two light-water reactors, one of which was to be of the boiling-water type, and also the reactor for the Otto Hahn, to be the BRD's first nuclear-power ship. A hot steam reactor was also planned. German industry was involved in a research project with scientists in California. Negotiations were also under way between France and the BRD to construct a joint gas-cooled reactor in France at no cost to the German taxpayer. The Karlsruhe reactor was scheduled for completion in the summer and industry was eagerly contemplating the possibility of fast-breeder research which could take place there.

In general, the emphasis of the nuclear program of the BRD was in the area of nuclear reactor development, but due to

¹⁴⁴ABC der deutschen Wirtschaft: Industrie: Bundesrepublik Deutschland und Westberlin (Darmstadt: ABC der deutschen Wirtschaft Verlagsgesellschaft mbH, 1965), gives a list of names and addresses of West German industries engaged in nuclear-related business in the early sixties. See esp. pp. II/112-13; and p. II/1753.

the contracts involving gas-cooled reactors, which it did not wish to break, the predominance of that type seemed assured. The power-producing industry was not expected to be interested in more than one prototype.¹⁴⁵

Predictions of future development were many and uniformly optimistic.¹⁴⁶ The president of the German Atomic Forum stated that he considered that the most important goal, that of attainment of commercial-grade reactors, had been reached.¹⁴⁷ By 1980 about four-fifths of the new reactors for electric power production would be nuclear and thereafter, practically all.¹⁴⁸ The official government prediction of atomic current was for the amount to grow from 65 megawatts in 1965 to 2000 Mwe by 1970, to 30,000 - 40,000 Mwe by 1985 and by the year 2000 to reach between 85,000 - 130,000 Mwe.¹⁴⁹

Euratom was also setting ambitious goals for the future. After almost fifteen months of negotiations about the form of the program, on May 13, 1965, the new direction was agreed upon

¹⁴⁵Joachim Pretsch, "Kernenergie-Erzeugung," Brennstoff-Wärme-Kraft, XVII (April, 1965), 167-69.

¹⁴⁶See Hans Michaelis, "Die Entwicklungsaussichten der Kernenergie-Aufgaben für die Industrie," Neue Technik, VI (October, 1964), 256-57, and Winnacker, "Bundesrepublik Deutschland: Breites Programm--Wachsender Markt--Offener Wettbewerb," p. 444.

¹⁴⁷Winnacker, "Bundesrepublik Deutschland: Breites Programm--Wachsender Markt--Offener Wettbewerb," p. 446.

¹⁴⁸Ibid., p. 444.

¹⁴⁹Federal Republic of Germany, Press and Information Office, Bulletin, XIII (October 12, 1965), pp. 5-6.

by the Euratom Council of Ministers. Funds were cut for proven reactors, such as the gas-graphite and light water types, which would be further developed in individual nations, it was hoped. The Otto Hahn project was to obtain additional funds. Of all the chapters of the second Euratom five-year-plan, the Ispra project, the Karlsruhe Institute, the Central Bureau for Nuclear Measurement in Geel, the Orgel project, fast reactors, the BR-2 activity, fusion, and reserves would receive increased funds.¹⁵⁰ Except for the decrease in gas reactors, the outlook for the German industrial interests was encouraging.

Not so encouraging was the increased doubt about the actual purpose of the Community. Dissension was not unusual among the Six. For one thing, the progress of the members from their original positions in the nuclear field had not occurred as foreseen, so that the disparity between Luxembourg and the BRD, for example, had increased rather than lessened. The better endowed nations had also begun to realize that there was really no overwhelming need for the added bureaucracy of the supra-national community. Since the research on nuclear fission was rapidly spilling over into areas of economic feasibility and profit-taking, the tendency toward reversion to consideration of purely national projects in the field was increasing.¹⁵¹

¹⁵⁰H. H. Haunschild, "Euratom-Forschungsprogramm nach seiner Umgestaltung," Neue Technik, VII (October, 1965), 194-95.

¹⁵¹Editorial, Atomwirtschaft, X (September, 1965), p. 410.

German industry harbored a specific conception of what Euratom should be doing. The Community should follow the example of the Bonn Ministry of Science, not that of the United States, France or Britain.

That means that Euratom should in general restrict itself to coordinating the activities of the Community within the atomic sector and perform a steering function directed toward auxiliary measures when needed [by the members]. As far as arrangements for research and development are already available in the area of atomic energy, they should be employed as extensively as possible, without undergoing major expansion. This would also apply to the joint atomic research department . . . wherein this research department should be engaged in mainly self-policed intensive reciprocal action with the industry of the Community. It should restrict itself to basic research for nuclear technology and perhaps in addition take over the training of scientific replacements specially for the requirements of nuclear technology and economics. Uniformly the view is held that in any case the duty of Euratom cannot be to develop a reactor type itself.¹⁵²

Strategically, the desire for a Multilateral Force was still being expressed. The difficulties that France and European integration problems, whether defensive or political, induced within the NATO alliance tended to dampen the chances of a program for nuclear weapons sharing which would be agreeable to all the other allies.¹⁵³ The closest the BRD came during the year was to tentative agreement on a bilateral force configuration whereby a NATO nuclear capability could be formed only by joint

¹⁵²Ibid., p. 411.

¹⁵³Paul-Henri Spaak, "The Search for Consensus: A New Effort to Build Europe," Foreign Affairs, XLIII (January, 1965), 199-208.

collaboration of the national and United States troops involved. No direct control was contemplated for the Germans, however.¹⁵⁴

In early 1965, almost half of the West Germans still included the wish for disarmament by the great powers as an important goal. The CDU-CSU and SPD rank and file showed about the same level of support, but a clear majority of the FDP members included this point in the configuration of their political desires.¹⁵⁵

The interest of the political elites was underscored by a resolution of the Bundestag on January 21, 1965, requesting a disarmament commissioner who would be under the auspices of the Foreign Office. The deputies also requested the establishment of an institute to research questions of arms control within an independent agency. A separate office was deemed necessary due to the increased activity in regard to international disarmament proposals. At the same time, the Government shifted from a reluctance to connect disarmament and German reunification to a belief that reconciliation of the German question was a prerequisite to any disarmament agreement with the Soviet bloc.¹⁵⁶

¹⁵⁴Irving Heymont, "The NATO Nuclear Bilateral Forces," Orbis, IX (Winter, 1966), 1025.

¹⁵⁵Neumann and Neumann, The German Public Opinion Polls, p. 215.

¹⁵⁶Federal Republic of Germany, Press and Information Office, Bulletin, XIII (February 2, 1965), pp. 1-2.

Reacting to the proposal of the Disarmament Commission of the United Nations, the Bonn Government on June 14 released a statement supporting the idea of an international conference preceded by meetings of the Eighteen Nation Geneva Disarmament Committee, but warned against the "misuse" of such a conference to force a recognition of unrecognized countries or for other political gains.¹⁵⁷ A more explicit rendition of the BRD's attitude was provided a few weeks later by Foreign Minister Gerhard Schröder.

Were extensive measures of armaments control and disarmament undertaken without regard to the German question, east and west would be saddled with a false security. For real peace requires, as President Johnson solemnly stated in a message on May 5, 1965, to the Federal German President, "that Germany be reunified on the basis of self-determination." It is our task from the very start to make absolutely clear to the world the connection of armaments control and disarmament in Europe with Germany's reunification.¹⁵⁸

Asked about the BRD's attitude toward a possible non-proliferation agreement, Schröder referred to the 1954 WEU provisions and expressed the desire of the nation that other countries also abide by similar restrictions. However, the pressing question of military security for a non-nuclear nation

¹⁵⁷Federal Republic of Germany, Press and Information Office, Bulletin, XIII (June 22, 1965), p. 5.

¹⁵⁸Gerhard Schröder, "News Conference Remarks on Arms Limitation and Nondissemination of Nuclear Weapons, July 2, 1965," in Berlin[er] Tagesspiegel, July 3, 1965, trans. by U.S. Department of State, in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1965, Publication No. 34 (Washington, D.C.: Government Printing Office, 1966), p. 279.

could not be ignored by Germany, due to its geographic location and the seven hundred medium-range missiles the Soviet Union had set up across the border. If there were some provision for an MLF within the alliance, Schröder hinted, it would not be necessary for the BRD to contemplate having its own nuclear force.

. . . [W]e have . . . very clear concepts regarding the minimum technical and organizational requirements that must be filled to be able, as far also as Germany is concerned, "in a credible way" to deter a possible opponent. . . . [I]n the end, the cohesion and future of the relationship between Europe and America depends upon the satisfactory solution of the atomic problem within the Alliance.¹⁵⁹

Later during the month of July, Schröder again discussed disarmament, advocating a world-wide plan which would not discriminate against the BRD or freeze the division of Germany.¹⁶⁰

Heinrich Krone, chairman of the Federal Defense Council, employed the same concepts in replies during a summer interview. He emphasized that Germany fully realized that the final say about the use of nuclear weapons would always remain with the United States President. Krone was more cautious than Schröder when asked about the proposal for an agreement on the nonproliferation of nuclear weapons. Pointedly referring to the 1963 test-ban agreement, he insisted that if such a treaty were to be formulated, Bonn would have to be consulted by its allies well in advance. The structure of the joint policy of disarmament

¹⁵⁹Ibid., p. 280.

¹⁶⁰Federal Republic of Germany, Press and Information Office, Bulletin, XII (August 3, 1965), p. 1.

and reunification would have an effect here, also.

It has been repeatedly declared [by Moscow] that such possession [of nuclear weapons] would be a great hindrance to German reunification. These declarations tend to raise the question of what progress in the direction of reunification could be achieved if we were to renounce possession of atomic weapons once and for all. Obviously a reunited Germany would find it a great deal easier to renounce in the form of a treaty the right to have atomic weapons.¹⁶¹

The Federal Republic, very touchy about this matter, delivered a sharp rebuke shortly thereafter when, during a session of the Geneva disarmament talks, the Soviet delegate introduced a memorandum from the GDR.¹⁶² On the same day, the BRD released a statement expressing the opinion that the American draft of a nonproliferation treaty provided an important contribution toward solving the problem of a nuclear-oriented world, for it gave consideration to the defense interests of the Atlantic Alliance,¹⁶³ an important concern of the Germans.

The shortwave station Deutsche Welle¹⁶⁴ took up the theme in an October broadcast. The BRD "will not be able to dispense

¹⁶¹Ibid., pp. 2-3.

¹⁶²Federal Republic of Germany, Press and Information Office, Bulletin, XIII (August 17, 1965), p. 2.

¹⁶³"Stellungnahme der Bundesregierung von 17. 8. 1965," Bulletin der Bundesregierung, August 18, 1965, cited in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Ilmgau Verlag, 1968), p. 111.

¹⁶⁴The Deutsche Welle is one of two stations that broadcast the West German viewpoint across its borders. It is shortwave and mainly for overseas listeners. Programs are beamed to the Americas, Africa, and the Far, Near, and Middle East. See Walter B. Emery, National and International Systems of Broadcasting (East Lansing: Michigan State University Press, 1969), p. 302.

with the protection of a nuclear deterrent" at the present time, it said. The Soviet accusation that the Bundesrepublik was suffering from an "atomic psychosis" was angrily refuted, and a categorical denial that the West German Bundeswehr would try to force reunification by use of arms was proffered. Differentiating between the desire for national nuclear capability and that of a voice in the planning for the use of the nuclear weapons already being used to defend Europe, an acceptable deterrent to individual possession of atomic weapons would be provided first by the decision of the NATO alliance to obviate the perceived necessity of any of its members of acquire such capacity.¹⁶⁵

Showing some tendency to pull back from the unabashedly pro-American stance Bonn had so long taken, Chancellor Ludwig Erhard (CDU-CSU) noted that Europe must become a unit not only politically and economically, but also militarily.¹⁶⁶ If the Americans would not allow the Germans to have the nuclear say they wished within NATO, the BRD would not be averse to seeking this security within a purely European framework. The statement was more a discreet feeler put out to other Europeans rather than a threat to the Americans.

Closing the year on a note of seeming accord, President Johnson and the Chancellor issued a communiqué after their

¹⁶⁵Federal Republic of Germany, Press and Information Office, Bulletin, XIII (October 26, 1965), p. 3.

¹⁶⁶Federal Republic of Germany, Press and Information Office, Bulletin, XIII (November 16, 1965), p. 4.

Christmas season talks. Re-emphasizing that his nation had no desire for national nuclear weapons nor control over weapons made available by others, Erhard agreed with Johnson that the allies should have some sort of say in nuclear matters and defense strategy. Both agreed to the principles of nuclear nonproliferation in regard to presently non-nuclear states, but reserved the right to make arrangements within the Atlantic Alliance dealing with nuclear capability. Such maneuverability would make national proliferation less likely, they believed.¹⁶⁷

As the year 1966 began and the deliberations about a possible treaty were beginning to gain public attention, the BRD saw itself faced with two not completely agreeable options. First, the nation could leave what protection was offered by NATO and try to obtain a nuclear capability similar to that of France. (No treaty up to this time would prevent Bonn from engaging in weapons manufacture on the territory of another state.) The second option was to remain within the alliance, lose bargaining power that the threat of acquisition of weapons had provided in recent years, and probably comply with an international nonproliferation agreement. Despite the December, 1965, communiqué, the Germans did not perceive the possibility of less contact with the Alliance with complete aversion. The forward-pause strategy was suspiciously viewed by those whose lives might be victims of

¹⁶⁷"Joint Communiqué by President Johnson and Chancellor Erhard, December 21, 1965," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1965, Publication No 34 (Washington, D.C.: Government Printing Office, 1966), pp. 633-34.

the pause. An integrated Europe with its own nuclear capability to be used when a majority of the nations agreed could defend Europe to Bonn's satisfaction. But until some agreement were reached to give the state its rightful say due to its geographical position and to its place within the Alliance, the BRD felt it would not be able to sign a nonproliferation treaty in good conscience.¹⁶⁸ The nation could also not make the complete break with its allies that an independent national force would demand.

Within this context, Egon Franke, the Minister for All-German Affairs, stated that relations with East Germany would be contingent in part upon the East's willingness to support disarmament plans and proposals for European security which might include arms inspection of some sort.¹⁶⁹

Heinrich Krone, now chairman of the National Defense Council in addition to being a minister without portfolio, saw the nonproliferation agreement and the question of nuclear sharing within NATO as two of the most important problems in the international realm. "With regard to nuclear weapons, Germany has never laid claim to equal rights, nor will she do so in the future. . . . What we want is equal security, not equal armament." The main objection to the proposed ban on proliferation of nuclear weapons was the fact that there would then be no chance to join in determining nuclear strategy in NATO. With unexpressed regret,

¹⁶⁸Kurt Birrenbach, "Deutschland-Amerika--Probleme einer Allianz," Aussenpolitik, XVII (February, 1966), 70-75.

¹⁶⁹Federal Republic of Germany, Press and Information Office, Bulletin, XIV (January 18, 1966), 17, 20.

the BRD had finally realized that a joint nuclear force was impossible due to present opposition. It would not be enough, Krone emphasized, for the Federal Republic of Germany to have veto power over the use of nuclear weapons on its territory. The possibility of a future European nuclear force must be left viable by a nonproliferation agreement. Finally, Krone reiterated the BRD's determination not to enter into such a treaty which would incur German obligations toward the Soviet Union as long as the Russians prevented German reunification.¹⁷⁰

Shortly after this statement, Italy joined the BRD in informing the Alliance that they would be happy to participate in nuclear strategy planning, but both stipulated the creation of a NATO nuclear force as a precondition to acceding to a non-proliferation agreement.¹⁷¹ Germany, like other non-nuclear nations, was trying to secure concessions from its allies prior to a restrictive international resolution which might deny any future voice in such vital affairs.

Adamant in its policy, the Bundesrepublik still felt the need to quiet international misgivings about West German motives. On March 25, 1966, Bonn released a note to most of the other countries which was intended to make the position of the BRD clear

¹⁷⁰Federal Republic of Germany, Press and Information Office, Bulletin, XIV (January 25, 1966), 1-3.

¹⁷¹Hanrieder, The Stable Crisis: Two Decades of German Foreign Policy, p. 28.

and easily understood.¹⁷² The Government accepted the principle of nonproliferation of nuclear weapons from one country to another as desirable, as well as the prevention of nuclear weapons manufacture within a nation, and called upon other states involved in military alliances to do the same. However, the burden of upholding the principle should be on the shoulders of the nuclear nations.

As a second point made in the note, the BRD would welcome a plan to discontinue nuclear arms buildup in all of Europe and to gradually reduce the present arms. Conditions for such an agreement would be the maintenance of the present power balance and that the plan be "linked with essential progress in the solution of political problems in Central Europe."

The note was a masterpiece born of a determination to maintain some possible link to nuclear arrangements within the Alliance without forsaking the principle of nonproliferation. Since states involved in military alliances would already be receiving some nuclear protection through group arrangements, the plan sought to preserve this by asking those with some nuclear protection, and presumably some say in their nuclear destinies, to forego a national capability. The scope of the nonproliferation agreement would have been quite limited compared to the 1968

¹⁷²Federal Republic of Germany, "Note to Other Governments, March 25, 1966," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1966, Publication No. 43 (Washington, D.C.: Government Printing Office, 1967), pp. 168-74.

agreement, but it embodied the wishes of the BRD, its hesitation to accept anything more comprehensive, and the deep concern on the part of a notable non-nuclear power.

Annual conferences of the SPD and the FDP were held in June, 1966. The FDP denounced German efforts to acquire any form of joint ownership of nuclear weapons. The SPD came to a similar conclusion.¹⁷³

On July 29, the Federal Government sent out a follow-up in which the reactions of other nations to the March note were revealed. The Federal Republic wished only to point out that the failure of the eastern countries to sign renunciation of force agreements discredited Communist complaints against the BRD for allegedly rejecting all plans for disarmament.¹⁷⁴

Dissension was minimized in a Bundestag resolution passed in the fall of 1966, expressing the desire for controlled disarmament, the renunciation by other nations of the production of nuclear weapons under international controls and the general desire for peace.¹⁷⁵ Prior to the vote, Foreign Minister Schröder answered questions from the SPD dealing with atomic affairs.

Referring to the March peace note, Schröder emphasized

¹⁷³Kaiser, German Foreign Policy in Transition: Bonn Between East and West, pp. 101-02.

¹⁷⁴Federal Republic of Germany, Bulletin der Bundesregierung, in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Ilmgau Verlag, 1968), pp. 112-13.

¹⁷⁵Federal Republic of Germany, Press and Information Office, Bulletin, XIV (September 27, 1966), 1-2.

the Government's position that the first step toward nonproliferation would be to prevent the production of nuclear weapons under individual national control. The most feasible way to begin would be for nations with similar interests to group themselves together.

If the nuclear problem within the Atlantic Alliance could be satisfactorily dealt with, the Bundesrepublik would be more than willing to participate in a control agreement. Again Schröder emphasized that the BRD would not consider a collective nuclear force to be an example of proliferation.¹⁷⁶

The position of the Erhard government could be summed up in two general preconditions to a nonproliferation treaty-- progress toward resolution of the German question and/or the acquisition of more nuclear control within the framework of NATO, preferably veto power over nuclear deployment in Germany.¹⁷⁷

With the change of government in December, 1966, the election of Kurt Georg Kiesinger as chancellor heading a CDU-CSU-SPD "temporary" coalition did not indicate an immediate reversal of the expressed reservations about the nonproliferation treaty. On December 13, the new chancellor addressed the Bundestag, repeating Erhard's denial that the BRD sought national control of possession of nuclear weapons, and offering German cooperation in reaching any agreement on arms control, reduction,

¹⁷⁶Federal Republic of Germany, Press and Information Office, Bulletin, XIV (October 4, 1966), 3-4.

¹⁷⁷Hanrieder, The Stable Crisis: Two Decades of German Foreign Policy, p. 31.

or disarmament.¹⁷⁸

The next day NATO, hoping for a lessening of German demands for nuclear control as a result of the change in government, created a standing Committee for Nuclear Defense Affairs and a subcommittee to function as a nuclear planning group. The BRD was to be represented at both levels in addition to the Military Committee and the new foreign minister, Willy Brandt, expressed the hope that there would be more opportunity for nuclear planning with German participation within NATO as a result.¹⁷⁹

The Growing Nuclear Industry

Atomic developments in the industrial sphere were quite overshadowed by the political deliberations. The country still had no reprocessing plant, although its technology was far enough advanced to build one. The presence of some uranium stores did not rule out the possibility that the BRD could control the fuel cycle within the state in the future, a precondition for the production of nuclear weapons.¹⁸⁰ Even so, the German

¹⁷⁸Federal Republic of Germany, Press and Information Office, Bulletin, XIV (December 20, 1966), Insert.

¹⁷⁹Willy Brandt, "Für die Nichtverbreitung von Kernwaffen," Stellungnahme der Bundesregierung in der 106. Sitzung des Deutschen Bundestages, April 27, 1967, in Willy Brandt, Aussen-Politik--Deutschlandpolitik--Europapolitik (Berlin: Berlin Verlag, 1968), p. 63.

¹⁸⁰Ungerer, "Das nukleare Dilemma und die Bundesrepublik," p. 603.

industries manufacturing reactors were doing so under licenses from the Americans, and the fuel requirements could not be met by local supplies.¹⁸¹ From a supply point of view, as well as due to the prohibitive costs, the development of nuclear weapons was infeasible.

Since nuclear power development had been retarded due to the powerful coal interests, the first full-scale plant did not open until 1966. However, due to the steady pace of improvements and technical advances, and the amount of money invested in national atomic programs, there was little doubt that the BRD would soon be a leader in world nuclear technology as well as possessing the potentiality to manufacture inexpensive bombs.¹⁸²

By the middle of the year, the BRD boasted thirty-four atomic reactors either finished or under construction, of which three were power atomic generators and the rest were earmarked for training and research.¹⁸³ In view of the increasing expansion of the field, the Cabinet formed a Cabinet Committee for Scientific Research, Academic Education and the Promotion of Professional Training to coordinate activities. Under its auspices, the 1966 budget included DM 483,200,000 (\$120,000,000) for peaceful

¹⁸¹Michael Balfour, West Germany (New York: Frederick A. Praeger, Inc., 1968), p. 258.

¹⁸²W. B. Bader, "Nuclear Weapons Sharing and 'the German Problem'," Foreign Affairs, LXIV (July, 1966), 697.

¹⁸³Federal Republic of Germany, Press and Information Office, Bulletin, XIV (August 16, 1966), 6.

nuclear research and development, and DM 127,000,000 (\$32,000,000) for Euratom.¹⁸⁴

According to the report of the Minister for Scientific Research, Gerhard Stoltenberg, to the Bundestag, DM 4,3000,000,000 (\$1,073,000,000) had been spent for peaceful nuclear purposes since 1956. German industry had high-quality, marketable prototypes of boiling-water and compressed-water reactors. The nation was looking forward to some international commercial orders soon, and following those developments, subsidization of the industry could be limited to exports. Stoltenberg termed international cooperation in the field of nuclear affairs "indispensable" if the industry were to continue to expand, since some projects still remained beyond the reach of individual states.¹⁸⁵ For example, German firms had negotiated an agreement with the Swiss to construct a joint six hundred megawatt plant somewhere on the border between the two states during the early part of the year. The output would be much greater than any of the small German nuclear plants then in operation.¹⁸⁶

Subsidies, briefly mentioned by Stoltenberg, were much in demand by the industry, which was standing on the threshold of international competition. Since reactor costs were so high,

¹⁸⁴Federal Republic of Germany, Press and Information Office, Bulletin, XIV (February 8, 1966), 2.

¹⁸⁵Federal Republic of Germany, Press and Information Office, Bulletin, XIV (October 18, 1966), 5.

¹⁸⁶Federal Republic of Germany, Press and Information Office, Bulletin, XIV (January 11, 1966), 6.

it would be necessary to provide attractive financing for potential customers, in order to capture part of the market. An additional handicap of the industry, that it had no prototype of a large nuclear reactor plant in operation as a sample to show prospective buyers, added to the necessity for obtaining some financial relief from the Government.¹⁸⁷ The administration agreed to limited support.

The "Grand Coalition" and Nuclear Affairs

1967 was a very political year in West German nuclear affairs. Present nuclear developments received modest publicity, while future ones were speculated about, debated, and cherished in the dreams of German decision-makers. The nonproliferation treaty was taking shape faster than the Government had thought possible the previous year, and the BRD was being faced with a policy dilemma.¹⁸⁸

¹⁸⁷H.-J. Brüchner, "Braucht die deutsche Reaktorbauindustrie eine Exportförderung?" Atomwirtschaft, XI (April, 1966), 162-63.

¹⁸⁸Not the least of the problems of a treaty is that of language. Since the safeguards provisions were the most important and surrounded by the most controversy, "control," "safeguards," and "inspection" were terms whose meaning in other languages was of extreme importance to the nations involved. In German there are some special problems with the word "Kontrolle", which has become the watchword of nonproliferation in that language. In ordinary usage, the verb "kontrollieren" means to watch over someone or something, an action verb with a specific object, but implying no change in that object. In another sense, there is the Kontrolle of business, the atom, and international relations through law, which implies regulation. In these contexts the word connotes influence over whatever is being kontrolliert by the administering body. In English, "Kontrolle" signifies both safeguards and inspection to some extent, as well as regulation. Thus in determining phraseology for the NPT,

Willy Brandt began early to emphasize the position of the BRD as only one non-nuclear state among many, not as an individual nation trying to sabotage the move toward the treaty.¹⁸⁹ In an address to the Bundestag on February 1, 1967, he stressed that the most important problem of the nonproliferation treaty for the BRD was the demarcation line it would have to draw between the military and peaceful uses of nuclear energy, and the damage such a determination could do if it were broadly applied to the non-nuclear nations. He remarked that the Federal Government was very interested in the offer of the United States to make the results of nuclear explosions available to non-nuclear nations in the event the Treaty was adopted, and to provide appropriately controlled nuclear explosions upon request from those nations. Brandt suggested that an international agency be entrusted with the nuclear explosions, to ensure that American policy would not favor some nations over others. A final necessary component for German satisfaction outlined in his speech concerned the availability of results of military research in the nuclear nations and the possibility of the participation of the non-nuclear states in information-gathering from related

clarification of the nature of meaning of the treaty terms was essential. See Peter Wittig, Die Kontrolle der Atomaren Rüstungen, Schriftenreihe der Hochschule für Politische Wissenschaften, Heft 3 (Munich: Carl Heymanns Verlag, 1967), pp. 301-05.

¹⁸⁹Willy Brandt, "Für die Einheit Europas," Speech before the Advisory Assembly of the European Council in Strassburg, January 24, 1967, in Willy Brandt, Aussenpolitik--Deutschland-politik--Europapolitik (Berlin: Berlin Verlag, 1968), p. 24.

experiments.¹⁹⁰

In a later answer to a question about the loss of information from the potential prohibition of nuclear explosions for any purpose in non-nuclear nations due to the overlapping of civilian and military technology, Brandt said it would not be of much concern to the densely populated area of West Germany.¹⁹¹

Under no circumstances was a withdrawal from Euratom being anticipated, however much attention the Government was paying to the NPT proposals. Euratom's expansion to include England was looked forward to after the fusion and expansion of the existing Common Market units.¹⁹² Up to this time the Euratom Commission had taken no stand on the safeguards proposals, but was studying the matter carefully.¹⁹³ As insurance the BRD was actively participating in the decision to further the forthcoming

¹⁹⁰Willy Brandt, "Statement to the Bundestag: Nonproliferation of Nuclear Weapons (Extracts), February 1, 1967," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1967, Publication No. 46 (Washington, D.C.: Government Printing Office, 1968), pp. 48-49.

¹⁹¹Willy Brandt, "Voraussetzungen und Auswirkungen eines 'Atomsperrvertrages'," Interview mit der Zeitung Die Welt, February 18, 1967, in Willy Brandt, Aussenpolitik--Deutschlandpolitik--Europapolitik (Berlin: Berlin Verlag, 1968), pp. 34-39.

¹⁹²Willy Brandt, "Der Komplex Rechtsradikalismus," Interview mit der Nachrichtenagentur Associated Press, February 6, 1967, in Willy Brandt, Aussenpolitik--Deutschlandpolitik--Europapolitik (Berlin: Berlin Verlag, 1968), p. 31.

¹⁹³Pierre Chatenet, "Speech to the European Parliament, March 16, 1967," Europa Archiv, Folge 6 (1967), pp. D 182 ff., in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iltgau Verlag, 1968), pp. 195-196.

third Euratom plan.¹⁹⁴ The West German scientists were working intensively on fast breeders, partially within the Euratom framework.¹⁹⁵

Concern for the possibility of nuclear blackmail against non-nuclear countries agreeing to forego weapons production occupied a portion of a speech by Ambassador Wilhelm Grewe. If nations were not to possess nuclear weapons of their own, they would have but three options open to them for their defense. The first would be neutrality, which neither the ambassador nor other officials in the government saw as a viable alternative in the present-day world. The second would lead the state into an alliance with one of the nuclear powers. The problem here, as had been the case with NATO, was that the cashing of the guarantee would signify unleashing a potential world annihilation, something that the back-up powers would be very loath to do. The third option would be a collective nuclear force developed by nations with similar interests. Grewe indicated that the last possibility would be the only one for the non-nuclear states of Europe.¹⁹⁶ Willy Brandt preferred an alliance with a nuclear

¹⁹⁴Willy Brandt, "Ausbau und Erweiterung der EWG," Erklärung der Bundesregierung in der 126. Sitzung des Deutschen Bundestages, October 13, 1967, in Willy Brandt, Aussenpolitik--Deutschlandpolitik--Europapolitik (Berlin: Berlin Verlag, 1968), p. 128.

¹⁹⁵Willy Brandt, A Peace Policy for Europe, trans. by Joel Carmichael (London: Holt, Rinehart & Winston, 1969), p. 178.

¹⁹⁶Wilhelm Grewe, Frankfurter Allgemeine Zeitung, February 14, 1967, in Gerhard Baumann, Der Atomsperrvertrag. Eine Dokumentation (Pfaffenhofen/Ilm: Ilmgau Verlag, 1968), pp. 212-15.

power.

Somewhat negative in his expression, Chancellor Kiesinger told a German television audience that the treaty would indeed mean giving guarantees to Moscow and losing technological advances from developing carrier rocket systems for nuclear weapons as well as the aforementioned problems.¹⁹⁷ Willy Brandt, in a newspaper¹⁹⁸ interview on the same day, said that a nonproliferation treaty would be justified only if the nuclear powers used it as one step toward their own renunciation of nuclear weapons. He also assured the public that Washington understood absolutely that the BRD would not allow Euratom safeguards provisions to be cast aside in favor of those of the IAEA. Showing that he was slightly more favorable to the treaty than the Chancellor, Brandt sought to dispel the ogre of IAEA controls by describing the experience of other nations with them. He also suggested that inspectors be taken only from those countries which had not embarked on a nuclear military program. If controls were to be inaugurated under an agreement, the Federal Government preferred unequivocal measures so that the Bundesrepublik would not be lightly accused by other nations of breaking the agreement. The

¹⁹⁷Kent Georg Kiesinger, "Television Interview about Nonproliferation Negotiations (Extract), February 17, 1967," in U.S. Arms Control and Disarmament Agency, Documents on Disarmament, 1967, Publication No. 46 (Washington, D.C.: Government Printing Office, 1968), pp. 91-92.

¹⁹⁸For a brief discussion of the West German press, see John C. Merrill, et al., The Foreign Press ([Baton Rouge]: Louisiana State University Press, 1964), p. 95.

Foreign Minister also considered the ratification of such a control agreement as a step toward normal relations with the eastern bloc.¹⁹⁹

Specifically, the prerequisites Brandt propounded were that the conomical research and utilization of nuclear energy remain uncompromised: that the treaty be seen as a step toward total disarmament; and that the possibility of nuclear blackmail be prevented. In any case, he planned to move slowly and consider all the ramifications of the developments before he would recommend signing the treaty.²⁰⁰

On February 28, 1967, the Deutsches Atomforum, which would be comprehensively affected by the controls of a nonproliferation treaty, issued a position paper on it. In order for such an agreement, with whose principles the group agreed, to be acceptable to German industry, international cooperation in the field of nuclear energy must be allowed, and export restrictions on nuclear reactors and related material not increased. The body objected to the unavailability of nuclear explosions for peaceful purposes, whether the country presently wanted or could use them or not. As an argument against a complete restriction, the Atomforum referred to the use of dynamite, which was previously of great military value, but was presently used more for peaceful purposes.

¹⁹⁹Willy Brandt, "Voraussetzungen und Auswirkungen eines 'Atomsperrvertrages'," pp. 34-39.

²⁰⁰Ibid.

Secondly, the inspections would be acceptable only if they dealt with accounting for the balance of materials (input-output controls), not the amount from process to process. In a reprocessing plant, close observation would be very detrimental to plant procedure. Control costs should be carried by the inspecting agency, not the firms involved. Moreover, the inspections should be made only by officials of non-nuclear states so long as the nuclear nations would not be inspected on equal terms.

Euratom should remain to provide fissionable materials to its members whenever there was a need for them and its control provisions should be protected. In addition, joint German projects with other countries as well as those within the BRD's borders for the enrichment of uranium should be allowed to continue to operate.

As far as export was concerned, provision should be made for the non-nuclear nations to export nuclear and nuclear-related materials in the same quantities and under the same conditions as the nations with nuclear weapons capability. Generally, the press release warned against any agreement which would not treat the scientific and economic establishments of the lesser and greater powers equally.²⁰¹

Following a winter of intense discussion, the spring brought a new BRD memorandum on the proposed treaty. In it the

²⁰¹"Stellungnahme des Deutschen Atomforums," Presse-Information des Deutschen Atomforums, February 28, 1967, in Gerhard Haumann, Der Atomsperrvertrag. Eine Dokumentation (Pfaffenhofen/Ilm: Ilmgau Verlag, 1968), pp. 198-201.

Government expressed the same wishes as it had publicly espoused in February. The BRD did not in any case see the acquisition of nuclear weapons as worth striving for. The two promises that it wanted explicitly incorporated in the body of the treaty were guarantees against nuclear blackmail and for the unrestricted use of atomic energy in peaceful pursuits. Specific safeguards recommendations were not introduced.²⁰²

Twenty days later, the Bundestag debated nonproliferation. Since there was no final text of the treaty and some negotiations with other states had to be handled in a confidential manner, the Government offered no definitive position statement.

More clearly than before, the Government set the goal of becoming a world power not through military means but through developments in science, economics, technology and culture. It welcomed the improvement of the place of peaceful nuclear energy in the more recent treaty drafts.²⁰³

Most deputies, whatever their parties, had serious misgivings about the treaty. Briefly, provisions bothering members of all persuasions were incorporated under the reservations previously expressed by the Government. In particular, members

²⁰²Federal Republic of Germany, "Die Denkschrift der Bundesregierung zum Atomsperrvertrag, April 7, 1967," in Ludwig Raiser; Jürgen Seetzen; Dipak Gupta, J. R. Schlesinger; Arnold Kramish; C. F. v. Weizsäcker; and Gunter Howe, Nichtverbreitung von Kernwaffen (Witten: Eckart-Verlag, 1968), pp. 134-38.

²⁰³Brandt, "Für die Nichtverbreitung von Kernwaffen," pp. 58-71.

of the Bundestag wished to know even more about the assurance of nuclear fuel delivery and the effect of the NPT upon it. Some desired an accompanying written long-term guarantee from the Americans. In this respect and in the matter of nuclear blackmail for economic as well as military gain, a healthy distrust of the United States in these matters was evident. One member recommended the immediate construction of a pilot plant for isotope separation as an insurance policy for increased security as well as its fuel-related function.

Although the Federal Government had stopped clamoring for a veto on the use of NATO nuclear weapons in Germany, the representatives did not.²⁰⁴ Reservations were expressed about the necessity for a comprehensive international treaty, in view of the small number of nations on the threshold of nuclear weapons capability and their regional concentration in Europe. An additional and often heard concern was that the treaty would freeze the nation-state system, making a communal defense policy as well as gradual European integration practically impossible.

The FDP recommended a five-year limitation on the treaty, after which time it would be reconsidered by its signatories. That party also advised consultations with Moscow as well as those with America which were taking place through Ambassador Swidbert Schnippenkötter in Washington. More information about the

²⁰⁴For an overview of NATO matters during the nonproliferation debate, see J. I. Coffey, "Strategy, Alliance Policy, and Nuclear Proliferation," Orbis, XI (Winter, 1968), 975-95.

proceeding of the NATO nuclear planning bodies which had been announced the previous December was requested.

In sum the legislative reaction embodied a feeling that the non-nuclear states were being discriminated against, since they would be bound by the treaty not only to be the ones foregoing nuclear weapons but undergoing control in the civilian sector as well.²⁰⁵

Brandt flatly denied that the BRD was striving for any political advantage using the treaty negotiations to blackmail others.²⁰⁶ Nonetheless, Wilhelm Schütz recommended that foreign policy be based upon the premise that a settlement of the German problem would not be forthcoming until the BRD had received either multilateral or bilateral nuclear defense guarantees as part of the NPT. Political and disarmament negotiations would go hand in hand.²⁰⁷

In August, 1967, President Johnson discussed the NPT with Chancellor Kiesinger. In the meetings both nations reaffirmed their NATO commitments and mutual dependence upon each other for

²⁰⁵"Stellungnahmen der Parteien des Deutschen Bundestages, April 27, 1967 (Excerpts)," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Ilmgau Verlag, 1968), pp. 125-40.

²⁰⁶Willy Brandt, "Für ein geregeltes Nebeneinander," Interview with the Deutschlandfunk on July 2, 1967, in Willy Brandt, Aussenpolitik--Deutschlandpolitik--Europapolitik (Berlin: Berlin Verlag, 1968), p. 88.

²⁰⁷Wilhelm Wolfgang Schütz, Rethinking German Policy (New York: Frederick A. Praeger, Inc., 1967), pp. 130-31.

security. Future plans for common defense through NATO were to be continued.²⁰⁸

During 1967 there was no repetition of the contents of the March 25, 1966, note. Brandt hinted that there might have been if it had not been for the November, 1966, U.N. General Assembly resolution to accept no alternative suggestions which would hinder the conclusion of a nonproliferation agreement.²⁰⁹

In an end-of-the-year address, Brandt consolidated the concerns of his Government under three headings: ". . . the non-impairment of the peaceful use of the atom (which is vital for an industrial country like the Federal Republic of Germany), the preservation of a common energy market in a growing Europe (which is vital for this growing Europe), and our legitimate security interests within the Alliance."²¹⁰

The Year of the NPT

Euratom Difficulties

The continuing negotiations for the NPT brought into question the useful existence of Euratom by the decision to

²⁰⁸"Joint Communiqué by President Johnson and Chancellor Kiesinger, August 16, 1967," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1967, Publication No. 46 (Washington, D.C.: Government Printing Office, 1968), p. 331.

²⁰⁹Brandt, A Peace Policy for Europe, p. 161.

²¹⁰Willy Brandt, "Statement to the Bundestag (Extracts), December 7, 1967," trans. by the U.S. Embassy in Germany, in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1967, Publication No. 46 (Washington, D.C.: Government Printing Office, 1968), p. 623.

administer safeguards through the IAEA. In addition, the Community was having difficulty satisfying the Six with its other functions.

In spite of difficulties, the Euratom total budget for 1968 was larger than before. Germany spent a higher per capita amount than the Euratom average on basic and applied research on nuclear energy, and slightly less on basic nuclear physics.²¹¹

The expenditures were not always fruitful, however. It was not unusual for program funds to run out or for money to be reappropriated to other projects, leaving investments in the original area stranded. Research awards were not always given to countries with the best potentiality for developing a project.²¹² The trend toward protecting national interests within the Community was shown by the reservation of public and appropriations contracts for national industries, and the awarding of the electric companies' business to their colleagues in the domestic nuclear industry. Quota restrictions and tariff barriers to nuclear trade still existed among the Six. In spite of the difficulties, per capita spending within Euratom was higher than that of the United States for similar projects.²¹³ However, the

²¹¹Bulletin of the European Communities, III (April, 1970), p. 44.

²¹²One cause of these and other shortcomings was the Rome Treaty provision that decisions about programs must be unanimous. Bulletin of the European Communities, I (March, 1968), pp. 42-44.

²¹³Community figures show that in 1968, the members appropriated 18.3 per cent of all their research and development funds to the peaceful use of nuclear energy, while the U.K. spent 9 per cent and the U.S. only 5.8 per cent.

return was lower, due to the proliferation of different firms contracting for work within the Community as compared to the four or five American companies sharing the U.S. market.²¹⁴

Felix Oboussier, counsel for the European Commission, foresaw conflict with the IAEA on several points. Four conditions had to be met to reconcile the NPT with the existing Euratom system. First, IAEA safeguards provisions should be limited to policing fuel. Second, the IAEA should not inspect the members of Euratom itself, but simply satisfy itself that the Euratom safeguard provisions followed the treaty objectives. Third, Euratom, as representative of the five nations signing the treaty, should deal directly with the IAEA to determine the best way to accomplish the second provision. Finally, a "guillotine clause" providing for the automatic enforcement of IAEA controls within a certain period would weaken the Euratom bargaining position, and should be stricken.

An additional problem would be created by the provision that countries could only export to nations also agreeing to the NPT. France, a member of Euratom, had declared its unwillingness to sign the agreement, and thus would produce further alienation within the Community. Or, if France remained an active partner, the free choice of sites for Community projects could be injured by the tendency of the other members to want to concentrate

²¹⁴European Communities, Secretariat General of the Commission, Survey of the Nuclear Policy of the European Communities, Supplement to the Bulletin of the European Communities, IX-X (1968), pp. 5, 33.

activities in France, where they would not be subject to IAEA controls.

Not only that, but the acceptance of IAEA controls in addition to Euratom controls would contradict the legal provision that the members may not enter into additional agreements which go against the regulations of the Community or are not reconcilable with them, thus endangering the Euratom safeguards system. According to Article 191 of the Euratom Treaty, Euratom could theoretically forbid entrance to an IAEA inspector and his or her national companion at joint installations. Furthermore, since the ownership of all nuclear materials legally was in the hands of Euratom, the individual nations had no legal right to consign this material to inspection by another agency. Dr. Oboussier also questioned what would become of the joint projects under additional IAEA inspections. To what lengths would Euratom be obligated to report to the IAEA on their activities if various members involved in the projects signed the treaty?²¹⁵

In a West German television interview in March, the vice president of the European Commission, Fritz Hellwig, expressed distress that there was to be no prior agreement between Euratom and the IAEA before the Euratom members would be called upon to sign the treaty. When asked about the effect non-participation

²¹⁵Felix Oboussier, "Zusammenfassung eines Vortrags vom 18. 1. 1968," Europäische Gemeinschaft, No. 4 (1968), in Gerhard Baumann, Der Atomsperrvertrag. Eine Dokumentation (Pfaffenhofen/Ilm: Ilmgau Verlag, 1968), pp. 188-91. Also see his "Euratom und der Kernwaffen-Sperrvertrag," Europa-Archiv (August 25, 1968), pp. 571-80.

of the Euratom countries would have on the American fuel delivery agreements, Hellwig said that there had been no clear indication of that yet--at least there had been no threats about cutting off the supply. He, like Brandt, saw the later treaty drafts as less threatening to the peaceful use of nuclear energy.²¹⁶

May brought a definitive stand from the European Parliament. In their resolution, the representatives requested that the right to unrestricted access to nuclear materials be stated in the preamble to the treaty. The resolution observed that the most recent treaty draft had gratifyingly included some of the suggestions made by various organs of the European Communities with regard to Euratom, such as providing for direct consultations between Euratom and the IAEA.²¹⁷

The German Nuclear Industry in 1968

No state with an interest in increasing its economic and technical competency could give up reactor technology. The BRD was no exception, but it still did not have control over the complete fuel cycle, a not too important flaw in the program

²¹⁶Fritz Hellwig, "Interview with the Zweites Deutsches Fernsehen, March 10, 1968," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iilmgau Verlag, 1968), pp. 184-85.

²¹⁷European Communities, European Parliament, "Entschliessung," Protokoll der Sitzung vom 14. 5. 1968, in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iilmgau Verlag, 1968), pp. 196-98.

due to the as yet unperfected methods of recycling.²¹⁸ Whether or not these processes become available, the BRD was expected to have produced a thousand kilograms of plutonium by the early 1970's and would be producing five thousand kilograms a year after 1980.²¹⁹

The BRD's nuclear industry was booming, despite the threat to it perceived by some businessmen. The German-based installations provided for over a third of the work force in completed Euratom projects.²²⁰ Governmental subsidies provided for construction of power plants and reactor prototypes by arranging absorption of any operating loss occasioned by the changeover to the new energy source. In public projects, plants were constructed on a turnkey basis, with the contractor's employees acting as architect-engineers and providing the guarantees.

Briefly, the atomic picture was framed by five main reactor contractors--AEG, GHH, Siemens, BBC-Krupp, and Interatom. AEG and Siemens were affiliated with General Electric and

²¹⁸Jürgen Seetzen, "Die Entwicklung der Kernenergietechnik," in Nichtverbreitung von Kernwaffen, by Ludwig Raiser; Jürgen Seetzen; Dipak Gupta; J. R. Schlesinger; Arnold Kramish; C. F. v. Weizsacker; and Gunter Howe; Forschungen und Berichte der Evangelischen Studiengemeinschaft, Band 22 (Witten: Eckart-Verlag, 1968), p. 20.

²¹⁹Victor Gilinsky and Bruce L. R. Smith, "Civilian Nuclear Power and Foreign Policy," Orbis, XII (Fall, 1968), 820.

²²⁰European Communities, Secretariat General of the Commission, Survey of the Nuclear Policy of the European Communities, p. 43.

Westinghouse, respectively, along with five other smaller firms. Siemens specialized in pressurized-water reactors and was branching into heavy-water outfits. AEG's field was boiling-water reactors, while BBC-Krupp and GHH-MAN dealt in high temperature reactors. Since the various utilities were not publicly owned, they did not develop reactor types on their own.

The trend was toward consolidation and merger of German fields dealing with nuclear energy in order to compete better on the international market. Even after some regrouping, Siemens, the largest German firm in the field, fell between GE and Westinghouse in manpower employed and was far below them in monetary turnover. AEG was about half the size of Siemens, and it employed slightly more workers than Westinghouse, but it realized a greater rate of return per worker than Siemens, an amount still less than half that of the American firm. The three next largest German companies, BBC-Krupp, GHH, and Interatom were respectively larger than their American competitors, Gulf Oil, Combustion Engineering, and Babcock and Wilcox. With one exception the American firms led their respective German counterparts in monetary turnover, however.

International cooperation was also on the increase, notably in the joint undertakings of the CEA and French firms and Siemens for producing heavy-water moderated, gas-cooled and heavy-water reactors; and the Siemens, Interatom, Belgonucléaire and Neratoom development of a sodium-cooled fast breeder reactor.

Within Euratom, the heavy-water, gas-cooled reactors were of interest only to the French and the Germans, who financed the KKN reactor. Siemens was the only firm developing heavy-water reactors, aided by a governmentally subsidized corporation called the Gesellschaft für Kernforschung. The research funded by this offshoot organization resulted in a product first exported to Argentina. The Government also paid the lion's share of the cost of the Jülich reactor of the high-temperature gas variety, which was of German design.²²¹ It was thus not unexpected when on May 22, 1968, the BRD asked Euratom members to give the further development of high-temperature reactors priority.²²²

1968 brought the progress on the research on the gas centrifuges to light. Under the cloak of secrecy imposed by the United States and Britain, information had not been made public about the process. The British, Dutch, and Germans had developed the process to the point that soon industry would be able to use it, and it would not be long before the centrifuge would hold its own in open-market competition.

It was obvious that there would be advantages to international cooperation among all three countries. Great Britain was not a Euratom member, but cooperation was not precluded, so long as the free flow of nuclear materials was not endangered and the regulations covering agreements with Euratom states were

²²¹Ibid., pp. 21-28.

²²²Ibid., p. 53.

followed. An increasing European tendency toward considering Great Britain for membership in the Atomic Energy Community was shown by the move toward cooperation between the British on the one hand and the Dutch and the Germans on the other. France was uncertain about the economic and technical applicability of the centrifuge process, and thus did not join in the cooperation. But the Italians expressed interest, and after consultations in November of 1968, the three original states invited other Euratom members to join the research if they were interested. One observer termed the potential influence of this project if it succeeds as equal to that of the original founding of Euratom.²²³

Internal Debate about the NPT

Meanwhile, the BRD was contributing to the negotiations on the NPT. For some time, from the latter half of 1967 through the first days of 1968, the BRD chose to listen to the debate rather than offering additional suggestions. When the Italians suggested that delivery of nuclear materials be guaranteed, in February, 1968, the BRD heartily agreed, but the treaty did not refer to the provision in quite that form. In any case, by participating in the deliberations on the treaty, the BRD made its mark on the first international agreement it had been

²²³Loosch, "Kernenergie und internationale Zusammenarbeit," pp. 394-95.

an active, independent party to since the war.²²⁴

Domestic, if not external, debate intensified within the BRD. Carl Friedrich von Weizsäcker, a respected man in nuclear affairs and a Nobel prize winner, strongly recommended not signing the NPT, whether or not the nation agreed to it in principle. Whether or not the rest of the world would consider the country a war-monger, political appearances were worth little until the economic future of the nuclear industry was assured. Von Weizsäcker placed great hope in fast-breeders and felt that that research would be hindered if the Americans were to inspect under the treaty provisions and appropriate German ideas. They would then be able to compete with the German industry holding an insurmountable advantage. Unless some of the control provisions were dropped from the agreement, or unless some black box techniques of inspection could be developed, he would recommend having nothing to do with the treaty.²²⁵

Not only rational objections but also scathing tirades were delivered against the NPT. The German reactor construction industry already had more difficulties than the U.S. industry because it did not have control over a large fuel supply for

²²⁴Alexander Petri, "Deutsche Mitwirkung beim Sperrvertrag," Aussenpolitik, XXI (April, 1970), 207-208.

²²⁵Carl Friedrich von Weizsäcker, "Atomkontrolle nur durch schwarze Kästen," in Nichtverbreitung von Kernwaffen, by Ludwig Raiser; Jürgen Seetzen; Dipak Gupta; J. R. Schlesinger; Arnold Kramish; C. F. v. Weizsäcker; and Gunter Howe; Forschungen und Berichte der Evangelischen Studiengemeinschaft, Band 22 (Witten: Eckart-Verlag, 1968), pp. 86-87.

its reactors. In a notorious and widely-mentioned case, Spain was on the verge of purchasing a German reactor when American competitors told her that the BRD would soon sign the NPT, making it impossible for them to provide the necessary fuel agreements for the reactor. Spain promptly signed a contract with the Americans. In addition, since the German firms even outside the national borders would be inspected, it was feared that other nations might consider only reactors from nuclear powers, who would not be subject to inspection.²²⁶ Although the language used in such accounts was extreme, such misgivings formed the basis for a tenacious opposition.²²⁷

On March 6, 1968, the Federal Government delivered a memorandum to other countries in Geneva discussing the NPT. The Government conceded that the peaceful use of nuclear energy was now better protected through recent changes. The function of the NPT as a step to disarmament was now incorporated into the body of the draft. But as yet there was no provision about nuclear blackmail, and the Federal Republic strenuously objected to a mere accompanying declaration. The Government wanted to include at least a "rule of conduct" within the treaty to restrain the nuclear powers.

In the view of the BRD, the adaptability of the treaty

²²⁶Marcel Hepp, Der Atomsperrvertrag: Die Supermächte verteilen die Welt (Stuttgart-Degerloch: Seewald Verlag, 1968), pp. 99-110.

²²⁷The similarity in style between Marcel Hepp and George Wallace is illustrative.

needed to be increased, both to please the non-nuclear nations and so that it could be a basis for more disarmament provisions later on. There should be an automatic review of the agreement, to be stated in the preamble.²²⁸

The tone of agreement with the NPT shown in this memorandum was belied by domestic debate. Dr. Walter Hallstein, no stranger to foreign policy-making, objected to the treaty on national television, while stressing that his opposition had nothing to do with the fact he was a German citizen. He felt that the "European option" of regional integration, perhaps in an as yet unperceived form, would still be precluded by the NPT.²²⁹

Franz-Josef Strauss, now finance minister, could not refrain from commenting on the provision to prevent threats from nuclear nations. Strauss did not have much faith in a guarantee against blackmail. For example, if the remedy against it were to take the case before the Security Council, four of the five nuclear powers hold seats on it and thus could not be counted upon to be impartial. If the argument actually was that the provision was designed to be used in case the People's

²²⁸Federal Republic of Germany, "Memorandum to Other Governments: Draft Nonproliferation Treaty, March 6, 1968," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1968 (Washington, D.C.: Government Printing Office, 1969), pp. 152-55.

²²⁹Walter Hallstein, "Interview with the Zweites Deutsches Fernsehen, March 10, 1968," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iltgau Verlag, 1968), pp. 186-88.

Republic of China tried such a move, Strauss's answer was that that country gave the BRD the least worries of the five nuclear powers.²³⁰

Swidbert Schnippenkötter, the chief BRD delegate to the treaty talks, agreed that countries such as India²³¹ would probably not feel secure enough with the blackmail provision for going to the Security Council to make the treaty an acceptable risk.²³²

The head of the Defense Committee of the Bundestag, Friedrich Zimmerman (CDU-CSU) objected to the NPT also because it would prevent the "European option" from being exercised. For example, the differences among France, Great Britain, and non-nuclear European signatory nations would not be reconcilable with integrationist policy. Zimmerman put little trust in bilateral assurances of favorable American interpretations of the NPT, because they would only be as good as the weight that other countries, especially the Soviet Union, wished to give them. In short, the changes in the treaty being made to

²³⁰Franz-Josef Strauss, "Interview with the Südwestfunk, March 17, 1968," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iltgau Verlag, 1968), p. 152.

²³¹For a look at India's position, which was not too far removed from that of the BRD, see Ashok Kapur, "Non-Proliferation: Factors that India must Weigh," Asian Review, II (April, 1969), 215-25.

²³²Swidbert Schnippenkötter, "Interview with the Deutsche Welle, March 19, 1968," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iltgau Verlag, 1968), pp. 147-51.

accommodate some objections were simply "tranquilizers" in his view.²³³

Dr. Stoltenberg, having heard Dr. Zimmerman's opinions, pointed out that controls over civilian energy would not only be undergone by the non-nuclear states, in view of the offer of the United States and Great Britain to put some of their installations under IAEA controls. He emphasized that there was still time for more changes in the text. He also praised the progress on the actual technological control mechanisms, while deploring the fact that controls over civilian power were only required of non-nuclear countries. For this reason, Euratom was to be preserved and strengthened in every way. Most important of all, no position should yet be taken by the Federal Government, since the final draft of the treaty had not been completed.²³⁴

Other reservations common to the non-nuclear nations in general were held by members of the European Community. First, the NPT might be used as an excuse to withhold results of peaceful nuclear explosions from non-nuclear states. The formation of international concerns to deal with the use of peaceful atomic explosions was rejected, leaving the possibility that nuclear

²³³Friedrich Zimmerman, "Interview with the Westdeutscher Rundfunk, March 22, 1968," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iimgau Verlag, 1968), pp. 210-23.

²³⁴Gerhard Stoltenberg, "Interview with the Westdeutscher Rundfunk, March 22, 1968," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iimgau Verlag, 1968), p. 153.

nations could selectively make their capability in the area available to those with whose projects they agreed. Second, some nations might withhold delivery of certain items necessary to peaceful research under the treaty by saying they might be used by the recipients for military purposes. Difficulties in remaining competitive in the fields of reactor technology, nuclear-powered vessels and plasma physics would beset the non-nuclear states from the moment of the affixation of their signatures. Third, the treaty was being forced on the non-nuclear nations, who, if they did not sign, could not hope to obtain fissionable material from the signatory powers.²³⁵

The BRD's April 9, 1968 note to the Soviet Union showed that the NPT negotiations were having effects in other policy areas. The note recalled the previous German proposals for a reduction in nuclear weapons and mutual exchange of observers at all military maneuvers in Europe.²³⁶ The Government agreed with the Soviets that the NPT would facilitate detente, even more so if provisions preventing nuclear blackmail were included.²³⁷

The outlooks of the three main political parties were

²³⁵Bernhard von Loeffelholz, "Wirtschaftliche Konsequenzen für Europa," Europäische Gemeinschaft, No. 4 (1968), in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Ilmgau Verlag, 1968), pp. 179-84.

²³⁶Federal Republic of Germany, "Note to the Soviet Union, April 9, 1968," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1968 (Washington, D.C.: Government Printing Office, 1969), p. 206.

²³⁷Ibid., p. 210.

slightly different from each other. In May, the FDP still stood by its recommendation that the NPT be signed if the peaceful use of nuclear energy were protected, and that the Federal Government should therewith renounce any wish whatsoever for atomic weapons.

The SPD was in favor of signing the treaty. In the SPD's view, the conditions stipulated by Brandt on April 27, 1967, had for the most part been met. In addition, some favorable interpretations of the treaty were hinted at that had not yet been made public. Countering the objections of others, the SPD observed that the question of discrimination was of less importance than had been depicted, since it just formalized the existing state of affairs. If the world were to wait eight to ten years before reconsidering such an agreement, the question of discrimination would be much greater. In addition, the heightened suspicion that Germany was going to acquire nuclear weapons at that time, if it expressed reservations about signing, would cast a shadow not only on the political reputation of the BRD but perhaps also on its economic affairs.

In view of the favorable positions of the SPD and the FSP, and the hesitation of the Government, it was clear that the CDU was antagonistic. The party did perceive that the NPT could serve as an instrument for an improved Ostpolitik, but it demanded to know the exact status of the Euratom-IAEA provisions, future fuel delivery, and the status of the carrier systems the BRD possessed for NATO purposes. Another CDU concern was what would happen after the NATO treaty expired while the NPT was

still in effect. Who would provide nuclear security for the BRD then? The CDU was closely following the interpretations by the U.S. and the U.S.S.R. which would accompany the treaty, and only after long deliberation and having ascertained that they as well as the text were completely acceptable, would it be in favor of the BRD's signature.²³⁸

²³⁸Ernst Majonica; Eberhard Eppler, and Fritz Rudolf Schultz, "Die Haltung der Parteien zum Atomsperrvertrag," Interview with the Second Program of the Südwestfunk, May 8, 1968, in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iltgau Verlag, 1968), pp. 206-10.

CHAPTER IV

THE GERMAN DECISION

The General Assembly of the United Nations adopted the NPT in June, 1968. On July 1, the signing of the NPT began and ended without the signature of the Federal Republic of Germany.

Pre-signature Maneuvering

On July 5, 1968, Chancellor Kiesinger gave a news conference for members of the national and international press, in which he answered questions about the position of his country with regard to the agreement. The BRD was going to participate in a conference with other non-nuclear nations, despite the pressure on the state to sign the treaty, while it awaited the results of the U.S. and Soviet treaty interpretations. Kiesinger hinted that an agreement on access to Berlin would facilitate the decision of the BRD to sign, since this particular situation was just one example of how blackmail by nuclear powers could occur. He also referred to the utility of the exchange of declarations renouncing the use of force.

Kiesinger revealed domestic cross-pressures in intimating that even though Brandt found the NPT entirely acceptable, the German Federal Government did not. When asked directly if the BRD would ratify the NPT within the year, Kiesinger said the

results of the upcoming conference and the Euratom-Vienna discussions would have to be examined first.²³⁹

Other nations found the German refusal to sign the NPT unsettling. One observer noted that if the agreement carried both American and German signatures, then the Soviet Union could be more certain that the United States would not be quite as eager to support the BRD if West Germany acquired nuclear weapons capability.²⁴⁰ The West Germans, in the absence of Soviet objections, continued to train in nuclear artillery which would be used in collaboration with American troops and their warheads.²⁴¹ In October, the seven-nation NATO nuclear planning group gave the BRD an increasing voice in NATO nuclear determinations, by asking Germany and Great Britain to provide recommendations for the direction of alliance policy.²⁴²

Shortly after it became clear that the BRD would not sign the treaty in the immediate future, the Deutsches Atomforum released its analysis of the situation. The NPT did not

²³⁹Kurt Georg Kiesinger, "News Conference Remarks on the Non-proliferation Treaty, (Extract), July 5, 1968," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1968 (Washington, D.C.: Government Printing Office, 1969), pp. 488-90.

²⁴⁰S. C. Yuter, "Preventing Nuclear Proliferation through the Legal Control of China's Bomb," Orbis, XII (Winter, 1968), 1019-20.

²⁴¹Carl Landauer, Germany: Illusions and Dilemmas (New York: Harcourt, Brace & World, 1969), p. 251.

²⁴²Hanrieder, The Stable Crisis: Two Decades of German Foreign Policy, p. 35.

specifically embody provisions for a black box approach to controls, which the forum much preferred above other agents of control. The question of who would pay for the cost of inspections was still unclear. One point the German industry would insist upon, and that was that the safeguards of Euratom be completely adopted during the discussions with the IAEA.

The provision in Article III calling for the parties to the treaty not to deliver nuclear materials and related machinery to countries which do not sign the treaty was seen to discriminate more against Germany than some other nations. An interpretation was requested. Fear that information and help from the nuclear nations would be precluded by Article I through the possibility that such know-how might be used for nuclear weapons manufacture was also expressed.²⁴³

Looking at the final treaty provisions, there had been some defeats for the BRD. Both Germany and Italy wanted a treaty duration of from ten to twelve years, but it was finally decided that twenty-five was a compromise with other suggestions. However, the final form of Article III was said to carry "Züge deutscher Handschrift",²⁴⁴ and this was a source of satisfaction even to those citizens who did not entirely agree to the treaty.

In early 1969, the CDU still feared giving any concessions to the Soviet Union by signing the treaty. The Foreign Office

²⁴³"Stellungnahme des Deutschen Atomforums, July 19, 1968," in Gerhard Baumann, Der Atomsperrvertrag, Eine Dokumentation (Pfaffenhofen/Ilm: Iltgau Verlag, 1968), pp. 201-03.

²⁴⁴Petri, "Deutsche Mitwirkung beim Sperrvertrag," p. 208.

was nonetheless told to prepare a paper explaining the possible consequences for the nation if it did not sign. First, read the report, the relationship with the Americans would be injured to the extent that an accusation by the Soviet Union that the BRD was trying to obtain nuclear weapons would more likely arouse American antagonism in the absence of a German signature. Cooperation with the great powers in future matters of security and disarmament would be endangered, a consequence of the narrowing freedom of action for the foreign policy of the BRD due to loss of credibility.

The SPD was trying to force the Chancellor into a political position where he would have to sign the treaty. The party even leaked the story to the German press that Chancellor Kiesinger would soon sign the NPT. However, the head of the CSU, Franz-Josef Strauss, termed the treaty "a new Versailles of weird proportions."²⁴⁵ In addition, Strauss did not want the chances of Europe to be set aside by accession to the treaty.²⁴⁶ Since the elections were in the offing for fall, the Bundeskanzler could not sign without splitting the CDU and CSU and losing the election.

Just before the September elections, the Federal Government issued a memorandum on biological and chemical weapons. It recommended that they be included under all future disarmament

²⁴⁵Spiegel, April 14, 1969, p. 27.

²⁴⁶Franz-Josef Strauss, Radio Broadcast by the Munich Domestic Service, September 10, 1969.

and arms control plans.²⁴⁷ The main stimulus to the document was the repeated demonstrations which had been taking place near the American army installations where poison gas was stored. Due to the saliency of the memorandum, it also served the purpose of diverting some attention during the election period from the fact that the NPT remained unsigned.

September 28, 1969, marked the turning point of the fate of the NPT in the BRD. The SPD gained control of the Bundestag for the first time in the new nation, and Willy Brandt was subsequently elected to the chancellorship. Several changes were envisioned. For one, the idea of a European security conference would be welcomed,²⁴⁸ although the Atlantic Alliance would probably continue as the cornerstone of the BRD's security.²⁴⁹ It was almost certain that the NPT would be signed; Brandt opined that not much more time would be needed.²⁵⁰

The decision to sign the NPT was almost conclusive by November. In the Bundestag there was a last-minute attempt by CDU-CSU members, including Kurt Birrenbach, to postpone signature

²⁴⁷Federal Republic of Germany, "Memorandum to Other Governments on Biological and Chemical Weapons, September 12, 1969," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1969, Publication No. 55 (Washington, D.C.: Government Printing Office, 1970), 449-51.

²⁴⁸Wolfgang Wagner, "Aussenpolitik nach dem Regierungswechsel in Bonn," Europa-Archiv, XXIV (November, 1969), 778.

²⁴⁹Ibid., p. 782.

²⁵⁰Willy Brandt, Interview with the Spiegel, October 27, 1969, p. 34.

until there were more guarantees and clarifications from the treaty writers. The United States had assured the Federal Government, however, that its accession to the treaty would not affect German's role within the Alliance; that the way to a unified Europe including a joint nuclear force would not be blocked; and that the peaceful use of nuclear energy would not be affected. The Russians also guaranteed that the civilian use of atomic power would not be infringed upon; that the states undergoing inspections would not be burdened with the costs of the program; and that the BRD would retain the right of self-defense. The CDU had demanded not only these assurances but also the renunciation by the Soviets of Articles 53 and 107 of the United Nations charter.²⁵¹

However, the deputies, as expected, approved the signing of the treaty, with ratification to be considered when the IAEA-Euratom agreement was reached.²⁵²

On November 28, 1969, the Federal Republic of Germany added its name to the list of Nonproliferation Treaty signatories.

An accompanying statement expressed various concerns of the BRD outlined throughout the years of prior debate. In addition, it stated that "the Federal Republic of Germany, in a situation in which it considers its supreme interests in

²⁵¹These articles allow the triumphant powers of World War II to take any measures against their former enemies without the fear that the Security Council would intervene.

²⁵²Willy Brandt, Interview Broadcast by the Warsaw PAP International Service, November 22, 1969.

jeopardy, will remain free by invoking the principle of international law laid down in Article 51 in the United Nations Charter to take the measures required to safeguard these interests."

Concerning inspections, the memorandum insisted that "the safeguards shall only be applied to source and special fissionable material and in conformity with the principle of safeguarding effectively the flow of source and special fissionable materials at certain strategic points."

Also, "each Party to the Treaty shall decide for itself which 'equipment or material' shall fall under the export provision of paragraph 2 of Article III. In so doing the Federal Republic of Germany will accept only those interpretations and definitions of the terms 'equipment or material' which it has expressly approved."²⁵³

In an accompanying note to the United States, the Federal Government further stated that a BRD accession to the treaty did not in any way imply recognition of the German Democratic Republic. In addition, "in connection with paragraph 3 of Article III and with Article IV of the treaty no nuclear activities in the fields of research, development, manufacture or use for peaceful purposes are prohibited nor can the transfer

²⁵³Federal Republic of Germany, "Statement on Signature of the Nonproliferation Treaty, November 28, 1969," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1969, Publication No. 55 (Washington, D.C.: Government Printing Office, 1970), 612014.

of information, materials and equipment be denied to non-nuclear-weapons States merely on the basis of allegations that such activities or transfers could be used for the manufacture of nuclear weapons or other nuclear explosive devices."

One of the earlier economic fears was reduced by the understanding that "the obligation of a non-nuclear weapons State Party to the Treaty . . . to accept safeguards outside its own territory prevails only if such a Party has dominant and effective control over a nuclear facility."²⁵⁴ At the same time, loyalty to NATO was reaffirmed.²⁵⁵

Economic interests had succeeded in postponing a political decision despite intense international pressure. When the decision was finally made, the many qualifications were mainly devoted to protection of the nuclear industry.

²⁵⁴Federal Republic of Germany, "Note to the United States on Signature of the Nonproliferation Treaty, November 28, 1969," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1969, Publication No. 55 (Washington, D.C.: Government Printing Office, 1970), pp. 609-11.

²⁵⁵"Statement by the German Ambassador to the United States on Signature of the Nonproliferation Treaty, November 28, 1969," in U.S., Arms Control and Disarmament Agency, Documents on Disarmament, 1969, Publication No. 55 (Washington, D.C.: Government Printing Office, 1970), pp. 614-15.

CHAPTER V

POST-SIGNATURE DEVELOPMENTS

Economic Progress

The year 1970 brought serious consideration of the direction of peaceful nuclear energy developments. Some manufacturers may have regretted the unavailability of nuclear weapons exportation, but the export of conventional weapons was already providing problems for the BRD.²⁵⁶

The export of nuclear reactors bade fair to become the most important element in the BRD's foreign aid program. The NPT did provide an advantageous measure of security for such future transactions, in that the inspections would prevent the recipients of the German aid from using their reactors for other than peaceful purposes.²⁵⁷

Safeguards were of renewed interest, due to the potential health hazards, the extremely high value of the material involved, and the possibility of blackmail by criminal elements

²⁵⁶Helga Haftendorn, "Am Waffenhandel die Finger verbrannt," Frankfurter Allgemeine Zeitung, March 9, 1971, p. 10.

²⁵⁷Günter Howe, "Probleme der militärischen und wirtschaftlichen Nutzung der Kernenergie," in Nichtverbreitung von Kernwaffen, by Ludwig Raiser; Jürgen Seetzen; Dipak Gupta; J. R. Schlesinger; Arnold Kramish; C. F. v. Weizsäcker; and Günter Howe; Forschungen und Berichte der Evangelischen Studiengemeinschaft, Band 22 (Witten: Eckart-Verlag, 1968), pp. 111-17.

in possession of fissionable materials in large enough quantities. The possibility of simple theft during operations or shipment of materials was of increasing concern.²⁵⁸

Euratom had new life infused into it by the Germans, who were extremely interested in maintaining the Euratom safeguards system. Intense interest in the fast-breeder project belied any hint that the NPT would preclude further development of it. Indeed, fast-neutron pulsed-source reactors for research in the area of condensed-state physics were to receive little funding so that efforts could be devoted to the new fast-breeder process.²⁵⁹ In addition, the Committee for the European Communities of the International Union of Producers and Distributors of Electrical Energy recommended that Euratom construct a large isotope separation plant in order for the Community to become self-sufficient in the production of the enriched uranium necessary for electricity production.²⁶⁰

In June, some industrial reorganization occurred within the BRD nuclear industry. AEG and Siemens created a joint subsidiary, the Kraftwerk-Union (KWU) with equal participation by each company. The KSU provided a single office for sales of nuclear power plants on a turnkey basis. Another subsidiary,

²⁵⁸Dipak Gupta and Jürgen Seetzen, "Kontrollmassnahmen in der Kerntechnik," Aussenpolitik, XXI (June, 1970), 338-47.

²⁵⁹Bulletin of the European Communities, I (November, 1968), 26-27.

²⁶⁰Bulletin of the European Communities, III (January, 1970), 50.

Trafo-Union, was created to deal with the manufacture of electrical transformers. The rationalization for the consolidation was that in order to compete more effectively with the firms of other countries, especially those in the United States, some sort of equal opposition had to be contrived. Siemens was no longer working under the Westinghouse patents for the pressurized-water reactor, but the affiliations of the AEG and Siemens with GE and Westinghouse precluded German competition with the American firms on U.S. territory. In return, Siemens and AEG were allowed to develop their home market without American competition. Since Siemens had more international freedom, the full extent of its technology could be made available in most transactions, a benefit in a market characterized by keen competition.

Siemens had also acquired the majority of stock in Interatom, half of whose shares were assigned to AEG through the medium of the KWU. Siemens and the AEG also joined with the Nuklear-Chemie und Metallurgie GmbH (Nukem) to form the Reaktor Brennelemente GmbH (RBG). AEG and General Electric formed the Kernreaktorteile Company (KRT) for light-water installations. AEG and Siemens together took over the majority of the shares in Alkem, previously held by Nukem. The result of all this activity was that AEG and Siemens were projected to have control over all the country's electrical engineering needs by 1975.²⁶¹

²⁶¹Bulletin of the European Communities, III (June, 1970), 37-39.

Later in the summer, the BRD's Ministry of Science and Culture instructed a consortium consisting of the Urangesellschaft mbH, the Uranerzbergbau GmbH and Nukem to become the West German agent to deal with procuring enriched uranium. On August 4, 1970, the BRD agent, Euratom and the United States Atomic Energy Commission signed an agreement which would result in the early delivery of more than two hundred tons of enriched uranium.²⁶² The pre-NPT worries of the West Germans about the supply of enriched nuclear fuel were abating.

With the renewed interest in science and technology, the BRD was prepared to fight for increased benefits from the international cooperation in which it was involved. Discussing the new project planned by the Conseil Européen pour la Recherche Nucléaire (CERN)²⁶³ Brandt made it clear that the BRD would only be willing to cooperate on that project if the location of the plant were decided by "objective considerations." He presented a list of the countries of CERN and the joint international projects located in each during the last ten years. After Italy, France, Belgium and Austria, the BRD operated only three installations employing fewer than five hundred people.²⁶⁴ The fight against discrimination under the NPT was being

²⁶²Bulletin of the European Communities, III (August, 1970), 64.

²⁶³Members of CERN are Austria, Belgium, Denmark, France, the BRD, Great Britain, Greece, Italy, the Netherlands, Norway, Sweden, and Switzerland.

²⁶⁸Spiegel, March 2, 1970, p. 36.

broadened to include demands for a fair share in economically rewarding matters within the framework of voluntary international cooperation.

Of great significance was the final agreement among Great Britain, the Netherlands and the BRD to cooperate on the gas centrifuge project. One of the concerns giving impetus to the agreement was the hope of breaking a U.S. near-monopoly over enriched fuel. The agreement provided for two test installations, one in Great Britain and two in the Netherlands, in order to prevent the slightest imputation that the BRD was starting to produce nuclear weapons. The German plant would be next to the Dutch plant to facilitate exchange of information. But as yet there was no indication that a total and genuine sphere of cooperation was anticipated by any of the three partners.²⁶⁵

Through Euratom, a look at the planned and present installations revealed the following figures.²⁶⁶ No gas-graphite

²⁶⁵Spiegel, March 16, 1970, p. 179.

²⁶⁶The list seems to be the most complete of three. One, published as a fold-out in the Twelfth Activity Report of the European Nuclear Energy Agency (November, 1970), does not include the ISH Geesthacht 2, 22-megawatt plant under construction; the planned SNR Weisweiler Fast-breeder reactor, projected for 300 megawatts; the planned Kernkraftwerk Neckar project of 700 megawatts for Lauffen; the planned Oberhausen 800 megawatt plant (KBE-EVS); the planned Marl 600 megawatt plant (Chemische Werke HULS & VEW); the planned Kirschgarthausen 700 megawatt project of GKM and Badenwerk; or the Grosskraftwerk Mannheim's 700 megawatt plant, as well as some others at least mentioned in the faulty list put out by the Frankfurter Allgemeine, February 13, 1971, p. 17.

reactors were planned or in production on German soil. Of the boiling-water plants, five-eighths were for the BRD, who already directed three-fifths of those in service and had all of those under construction, although no more were as yet planned. Of pressurized-water reactors, a third of the plants were in the Federal Republic, including a quarter of those in service and about forty per cent of those under construction. Of the heavy-water reactors, half of all the plants, including half of those in service and all of those under construction were to be on German territory. In the high-temperature reactor field, all present, nearly-completed and planned plants were in the BRD. The only sodium-zirconium hydroxide plant under construction and the only nuclear superheat in service had foundations in German soil. Half of the fast-breeders and all those planned were to be there, and eight out of the other eleven plants whose type had not yet been determined were to be built in Germany.²⁶⁷ But as yet only two per cent of the electric power in the BRD was produced by nuclear energy.²⁶⁸

Political Developments

NATO

Defense Minister Helmut Schmidt traveled to Washington

²⁶⁷Bulletin of the European Communities, III (April, 1970), p. 46.

²⁶⁸Wilhelm Throm, "Wir müssen mit der Kernenergie leben," Frankfurter Allgemeine Zeitung, March 9, 1971, p. 10.

in November, 1969, to discuss NATO matters. There the possibility of German co-determination in matters of nuclear defense was weakened by the technical question of whether a consultation would be physically possible in time of crisis.²⁶⁹

NATO consultations in early December resulted in additional disappointments for the BRD. The Council action recommended by a Belgian-American study group was to leave final and sole responsibility in case of an attack on NATO territory with the President of the United States. Defense Ministers Kai-Uwe von Hassel, Gerhard Schröder and Helmut Schmidt all had entertained hopes of preventing unnecessary atomic retaliation by the Alliance on German soil.²⁷⁰ That possibility was now dead.

The white paper on German security and the reorganization of the military released early in 1970 stated:

The Federal Armed Forces do not possess nuclear weapons, nor do they exercise any control over them. Moreover, the Federal Government has repeatedly stated that it does not seek to gain such possession or control. The Federal Armed Forces must, however, be equipped with delivery means for nuclear weapons as long as the potential enemy and the allied forces possess them. If our armed forces did not have such means of delivery, this would open wide gaps in our system of deterrence, considering the structure of Western defence. . . .²⁷¹

²⁶⁹Helmut Schmidt, Interview with the Spiegel, November 10, 1969, pp. 36-44.

²⁷⁰Spiegel, December 1, 1969, p. 39.

²⁷¹Federal Republic of Germany, Press and Information Office, White Paper 1970 on the Security of the Federal Republic of Germany and on the State of the German Federal Armed Forces (Bonn: Federal Minister of Defense on behalf of the German Federal Government, 1970), pp. 8-10.

Directly referring to NATO, the document continued:

The Federal Government has fully adequate means of representing the German interests in consultations on the possible release of nuclear weapons. In addition, the Federal Government takes part in the nuclear planning bodies of NATO, in the formulation of guidelines, plans, programmes and procedures governing the use of nuclear weapons.²⁷²

Perhaps due to the NPT as well as to his party affiliation, Helmut Schmidt dismissed a West German national deterrent as impossible, since its credibility would be nil and its deterrence effect small. He favored the strategy of "flexible response" rather than immediate and total retaliation by the allies on the occasion of an incursion into NATO territory,²⁷³ thus putting the seal to the end of an era-long debate within NATO.

Foreign Policy and the Ostpolitik

The Federal Republic was already abiding by the regulations of the treaty, although it had not yet been ratified, and thus the nation sought to acquire permanent representation in the governor's council of the IAEA and otherwise contribute to scientific and technical questions within the possibilities available to a nation without United Nations membership.²⁷⁴

Some foreign policy revisions were anticipated by Foreign Minister Walter Scheel in a February, 1970, speech to

²⁷²Ibid., p. 40.

²⁷³Helmut Schmidt, "Germany in the Era of Negotiations," Foreign Affairs, XLIX (October, 1970), 40-50.

²⁷⁴Walter Scheel, "Statement to the German Bundestag," Broadcast live by the Cologne Domestic Service, February 25, 1970.

the Bundestag. He noted that science and technology, as well as determining the international status of a nation, also exerted an inexorable pull toward international cooperation, since most scientific problems knew no national boundaries. Technical cooperation had become an important element in BRD foreign relations. For example, Scheel pointed to BRD efforts to save Euratom when Article III of the NPT had threatened to end its usefulness.

Other foreign policy positions of the Government sounded remarkably unchanged after the NPT. In his State of the Nation address on January 14, 1970, Chancellor Brandt indicated that the BRD would welcome a bilateral renunciation of force with other nations which could lead to a European security conference. He noted that such a conference would be of little significance unless some change in the inter-German relationship previously took place.²⁷⁵

The Bonn Ostpolitik was at least superficially connected to questions of disarmament. Secretary of State Conrad Ahlers expressed the support of the BRD for the U.S. attempts at east-west detente.²⁷⁶ The U.S. attempt to reach some sort of arms limitation agreement with the Soviet Union in part justified to the Alliance the BRD's own attempts to lessen the tension with

²⁷⁵Willy Brandt, "State of the Nation Message," Broadcast by the Cologne Domestic Service, January 14, 1970.

²⁷⁶Conrad Ahlers, Interview with the Frankfurt Domestic Service, April 1, 1970.

the GDR.²⁷⁷ The negotiations with the GDR were resulting in a less rigid posture on the part of BRD defense personnel, who were usually more security-minded than the rest of the government elite.

Concurrently with the beginning of a border thaw, the BRD-Soviet Union relations were also improving. The Minister of Science, Herr Leussink, expected the two nations to exchange scientific and technological ideas in many areas, including nuclear energy. Within a year the first West German scientists were to be allowed to travel to Soviet nuclear research centers, and to the Siberian town populated by scientists. Joint research in nuclear physics with their Soviet hosts was planned for the travellers and also cooperation in an effort to further develop the Siberian resources. When questioned about the need for such an exchange, Leussink pointed out that research publications were often far behind the work being presently conducted, and if the West Germans wished to remain on top of developments in their fields, face-to-face meetings were important. Some felt the exchange would be mainly one-sided, but Leussink foresaw West German contributions from the work on the electronic synchotron in Hamburg, an accelerator for atomic particles and achievements in plasma physics.²⁷⁸

²⁷⁷Willy Brandt, "Interview with the Spiegel," August 17, 1970, pp. 28-30.

²⁷⁸Federal Science Minister Leussink, "Interview with the Spiegel," October 5, 1970, pp. 44-46.

The SALT Talks

The BRD welcomed the Strategic Arms Limitation Talks between the United States and the Soviet Union. One of the German desires when it signed the NPT was for the treaty to act as a preliminary step to further disarmament agreements between the nuclear powers themselves.

A less emotional German reaction was partly due to increased BRD participation during these negotiations compared with the NPT debates. The nation termed the procedure followed in disseminating information about the talks to interested nations very satisfactory. Of course, the BRD will not have to be a party to a final SALT agreement, since it does not possess any strategic arms.

Of particular interest to the Bundesrepublik were the seven hundred Soviet middle-range rockets stationed near BRD borders. These rockets produced uneasiness due to the absence of comparable U.S. devices stationed in Europe since the old ones were removed in 1962. The BRD agreed that the definition of strategic arms included intercontinental missiles, long-range bombers, and atomic submarines, but Helmut Schmidt also referred to medium-range missiles as strategic because they could "be used for political pressure."²⁷⁹

During the third round of SALT, the Russians had indeed agreed to discuss the missiles of such concern to the Federal

²⁷⁹Helmut Schmidt, "Interview with the Spiegel," November 9, 1970, p. 142.

Republic. In exchange for this concession, the Soviet Union said it would accept a reduction in the American atomic capability in Europe. Defense Minister Schmidt then declared that any such agreement would definitely destroy the Alliance. The nuclear carriers had to remain at all costs.²⁸⁰ With them the BRD would have no physical finger in the NATO nuclear pie.²⁸¹

In spite of some results of the third round of the SALT talks, the BRD planned to "approve possible agreements between both powers . . . with feelings similar to those toward the non-proliferation treaty, namely with some regret here and there."²⁸²

On February 23, 1971, the Geneva Conference of the Committee on Disarmament reopened. The Federal Republic of Germany issued a statement re-emphasizing its desire for a disarmament agreement and for world peace. In addition, the BRD bade official welcome to the adoption of the Draft Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil thereof, to which the BRD intended to become a party. The Federal Government also hoped to participate in its exchange of seismic information with the aim of eventually

²⁸⁰Spiegel, March 8, 1971, p. 109.

²⁸¹Spiegel wryly quipped, "Rüstungskontrolle ist wie die Pille--jedermann mag sie. Abrüstung ist wie Entmannung--das will niemand."

²⁸²Schmidt, "Interview with the Spiegel," November 9, 1970, p. 142.

preventing all nuclear weapons testing.²⁸³

²⁸³Federal Republic of Germany, Press and Information Office, Bulletin, XIX (March 2, 1971), 45.

CHAPTER VI

THE BRD IN FUTURE YEARS: SOME PROJECTIONS

We now turn to the main hypothesis--that if a nation's political and economic interests are in conflict, the choice made will reflect the priority implicit in the decision. In the case of the international control of the atom, the evidence is overwhelmingly in favor of an interpretation of German preference for political advantage derived from efforts to improve that control. The all-out drive in this direction is tempered, however, by economic considerations of the advantages to unlimited nuclear competition. In the security sphere, the BRD seems to have decided that working and participating in activities directed toward peace will afford the nation more long-term security than a policy of belligerence which might provoke premature reactions from fearful neighbors. Rather than postulating that the Bundesrepublik will move in the direction of nuclear armament, it is more likely that it will play a greater instrumental role with time in the modest changes toward new vistas of international cooperation.

Throughout the years, the BRD repeatedly stated that it is in favor of disarmament, arms limitation, and nuclear non-proliferation, and that it has no desire for its own national nuclear force. The greatest vacillation in nuclear policy

occurred from 1957 when Adenauer was ready to equip the Bundeswehr with atomic weapons to the early 1960's. Still West Germany requested a determining voice in the control of NATO and demanded a veto over the use of nuclear devices on German soil in time of crisis. The present position is that nuclear planning must take place with German participation. The tone has mellowed, but at the same time the idea of a European nuclear force has been mentioned more often in recent years.

Morton Kaplan believes that by 1975 the pressures from the younger postwar generation will be so great that there will be a West German demand for a national nuclear capability. He views the significance of the NPT for Germany as similar to the signing of the Versailles Treaty,²⁸⁴ presaging the rise of a radical government to renounce the treaty and become a nuclear-based Reich.²⁸⁵

T. C. Schelling has observed that "the West German Government appears unwilling to renounce nuclear weapons, even to show an interest in efforts toward nonproliferation." He, too, saw the danger that the BRD, denied an effective multilateral role, would turn nuclear within the none-too-distant future.²⁸⁶

From the evidence available, it does not appear that the

²⁸⁴Compare with Strauss, Supra, p. 111.

²⁸⁵Morton Kaplan, "Weaknesses of the Nonproliferation Treaty," Orbis, XII (Winter, 1969), 1049-56.

²⁸⁶Thomas C. Schelling, "Central Europe--The Challenge," in The Atlantic Alliance, ed. by Henry M. Jackson (New York: Frederick A. Praeger, Inc., 1967), p. 160.

BRD will go nuclear in the near future. BRD officials perceive deterrent values as minimal, as did the Deutsch panel of elites. The mass opinion structure on the issue is even more emphatic in its renunciation of such a course. Many analysts de-emphasize the economic considerations that were so evident in German domestic disagreement about the NPT, but a recognition that economic aims are extremely important to the nation can help to provide more accurate future analyses of nuclear desires.

The perceived coercive value of a national nuclear force has remained of some interest, but has been subordinated to other considerations with the passage of time since the partition of Germany and the building of the Wall. The present Ostpolitik and the agreement of the German people with the direction of Brandt's policy are the best indicators of how little promise the BRD attaches to this particular option.²⁸⁷ Higher coercive value of the atomic bomb is not evident within the context of the present West German foreign-policy priorities.²⁸⁸

Self-reliance is the most likely political consideration to hold some attraction for the West German elites.²⁸⁹ Since the interviews in 1964, there seems to be increased general

²⁸⁷Frankfurter Allgemeine Zeitung, March 27, 1971.

²⁸⁸See Elmer Plischke, "West German Foreign and Defense Policy," Orbis, XII (Winter, 1969), 1098-1136.

²⁸⁹For a general discussion of how nuclear weapons tend to affect alliances and neutrality, see Léo Hamon, "Puissance nucléaire et dissuasion--Alliance et neutralité," Revue de Défense Nationale, XXII (February, 1966), 234-57.

disillusionment with the United States, and the subsidiary role of some West German defense questions to those of a foreign state--with whom there is no hope of integration in an equal basis--is resented. Evidence of this dissatisfaction with some aspects of the Atlantic Alliance is the increased interest in a European security force. With such a force, Europe could adapt Alliance policy more to its specifications and return the balance to relative equality between the U.S. and European interests. A European force would help solve the problem of the dollar flow, for which the Europeans--especially the Germans--are being blamed by the United States. Conversely, if for some reason the U.S. suddenly withdrew protection, the European countries would not remain unshielded if they had control over their own nuclear force. A European nuclear force defending European territory could be more credible to a nation such as the Soviet Union which might have had reason to doubt American full-scale intervention. Finally, the European nations would also be able to influence the course of a possible war.²⁹⁰ There is, however, little chance of a European force in the near future.

No nation in the present European system will be prepared to place its survival in the hands of another, since the use of the deterrent could invite the destruction of its homeland. The necessary psychological cohesion, political unity and institutional loyalty are lacking. Only a President of Europe with full authority in a nuclear crisis

²⁹⁰James L. Richardson, Germany and the Atlantic Alliance (Cambridge: Harvard University Press, 1966), pp. 200-02.

could endow a European deterrent with credibility.²⁹¹

Another possibility would be the acceptance of Britain and France as the joint nuclear power core of a new alliance, in which the BRD could contribute a significant conventional component. When the 1974 U.S.-British agreement expires, it will be possible to determine any indication of the feasibility of such an alliance.²⁹²

The BRD would probably be the first seconding voice to any motion from other European nations for a European nuclear capability. The NPT would not be endangered according to the technical interpretations agreed upon at the time the BRD signed, and the security wishes of West Germany could be more than fulfilled by such an option.

If there were a positive indication of such a change in policy, it might be found in the attitude of the BRD toward the safeguards provisions of the NPT. But in this context, West German scientists are actively striving to find a way to perfect a "black box" inspection technique to be used in accordance with the NPT.²⁹³ There are also indications that more of the German objections will be appeased by the general guidelines for agreements proposed by the Safeguards Committee of the IAEA. If economic objections are met, BRD objections to comprehensive

²⁹¹Anthony J. Pierre, "Nuclear Diplomacy; Britain, France and America," Foreign Affairs, XLIX (January, 1971), 283.

²⁹²Ibid., pp. 299-300.

²⁹³Quester, "The Nonproliferation Treaty and the International Atomic Energy Agency," p. 173.

international control of the atom would radically diminish.

The Federal Republic of Germany had not ratified the Nonproliferation Treaty by mid-1971, pending the outcome of the negotiations about the safeguards provisions under Article III. Briefly, there are certain provisions will appeal to the BRD. Perhaps foremost among these would be the right to reject inspectors from nations who themselves are not undergoing inspection. There might be some desire to exclude U.S. inspectors, even though America has agreed to put its non-military installations under IAEA control. The fear of industrial espionage is still quite strong. In addition, if the cost of the inspections were to be borne by the IAEA above and beyond the normal cost of record maintenance, the West Germans would be pleased. If export provisions were not frozen, so that the export of nuclear material to non-members of the IAEA safeguards agreement were still allowed, German industry would accept the provision with alacrity.

The impact of inspections themselves would be more palatable if the emphasis were on an accounting system, with the physical inspection limited to purposes of verification and determined by the individual nation's particular situation.

Any design information called for by the general agreement would still be opposed by the nuclear industry, but limitations to the most general design reports would accommodate industry somewhat.

If the Article III were so interpreted, and an acceptable

Euratom-IAEA agreement is concluded, it is almost certain that the BRD, as well as other less wealthy non-nuclear weapon states, will ratify the treaty. The Bundesrepublik is a young state with a good record of treaty adherence. An early departure from a new treaty is not likely. If there were completely unacceptable provisions, the nation would be able to withstand a great amount of pressure, some of which it experienced before it signed the NPT, before it would become party to an agreement it did not intend to abide by.

Even with the increase in its economic power in the world market, the BRD has not yet reached the status of a great power, not can it ever if a prerequisite is a national nuclear force. If the SALT talks yield further results, if the nations presently excluded from the United Nations are invited to join that organization, and if the German Ostpolitik continues to obtain promising results, the world order may become characterized by a status measure of the amount of peaceful nuclear power, technology and developments a nation controls rather than the static figure of useless devices of atomic destruction.

APPENDIX

SUGGESTIONS FOR FUTURE RESEARCH

Trying to examine non-nuclear nations for hints about the future direction of their nuclear policy encounters many problems. H. L. Nieburg agrees:

The lack of consensus is astonishing. The partial view, the political myth, the polemics of political sloganeering and self-justification, the alienation between specialized points-of-view--this is the disarray which characterizes the record. The fact of continued controversy, even as the issues fade into history, is omnipresent.²⁹⁴

Added to the complexity of the policy itself is the barrier of simple lack of information about the nuclear policy development of a non-nuclear nation. This is by far one of the most ignored areas in the political science literature dealing with foreign policy. It is appalling to note the calibre of many existing writings on the subject. Some contain misunderstandings and even misinformation, but almost all English-language articles are also geared to the layman in most general terms. There is no coordinated effort to produce a series of national nuclear portraits which could be examined for areas of similarity and individuality to be used as variables in future research. The NPT has spawned some new studies, mainly dealing with India and Japan. But since there is a geometric increase in peaceful

²⁹⁴Nieburg, Nuclear Secrecy and Foreign Policy, p. v.

use of nuclear energy, and due to its relationship to the capability for mass destruction, further descriptive studies are a must.

A typical summary of considerations that influence the will of a nation to obtain nuclear weapons are prestige, self-reliance, coercive value and deterrent value.²⁹⁵ In no model found so far, however, has there been an explicit and important part envisioned for the nuclear economic interests of the country. Arms trade has been an all-time money-maker for the more advanced countries--a perceived advantage in enlarging that trade to include nuclear devices and their trappings would not be a small consideration for a nation in desperate need of revenue in order to survive.

If we include economic value as the fifth element in the above typology, it becomes easier to apply as a balance to the political or politico-military reasons for nuclear arms acquisition. As the slave trade shaped domestic policy in the United States for hundreds of years and determined international relations with Africa for the period, so, too, has the nuclear industry had an extensive influence on foreign policy, and this effect must be determined in order to provide a balanced analysis. Such descriptive approaches would include a section on the strength of the nuclear industry or industries based in the

²⁹⁵Harrison, "Nth Nation Challenges: The Present Perspective," pp. 161-63.

country. Also considered should be the extent to which foreign nuclear industry is involved in the nation. Nuclear policy may be quite different due to the effect of outside influence.

Use of public declarations of national interests by governments as tools for analysis entails some drawbacks. Such statements are carefully screened, often pre-tested on small selected audiences, and imply the absence of disagreement within the nation about the direction of policy. However, their use can be justified if the restrictions are realized and statements are taken for what they are--"purposive communications. . . guided by the purpose behind them."³⁰⁰ Time and place can be used as independent variables against which to judge changing statements about a subject pertaining to the national interest.

Finally, more survey research within the countries themselves is needed to determine whether it is possible to predict policy with any accuracy. Do the governmental, industrial or military elites usually seem to have opinions that agree with the official policy? Is the voice of the masses heeded? To what extent are these opinions communicated to the decision-makers? A series of national analyses similar to that by Deutsch and Edinger would be invaluable for assessing the relative strengths of the various components.

²⁹⁶Wettig, "Soviet Policy on the Nonproliferation of Nuclear Weapons," pp. 1058-59.

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WEST GERMAN NUCLEAR DEVELOPMENT AND
INTERNATIONAL SAFEGUARDS, 1945-1970

by

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AN ABSTRACT OF A MASTER'S THESIS

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Science and technology are two important determinants of behavior of nation-states within the international system. The main hypothesis examined by this thesis is that a nation with a high economic stake in the development of an aspect of technology and a high degree of certainty that it will receive international disapprobation if it vigorously pursues further development will indicate the importance of its economic status relative to its international political status if a choice between the two interests is demanded from the country.

The Federal Republic of Germany is one nation-state which has encountered such a dilemma with regard to the utilization and development of nuclear technology. International opinion has been opposed to unilateral West German acquisition of nuclear weapons, but the attainment of large profits from the development of peaceful nuclear technology and trade in nuclear materials are well within the country's capabilities.

An international consensus that nuclear proliferation must be halted has evolved since World War II. Many safeguards measures have been proposed to provide reassurance that proliferation and diversion of nuclear materials from peaceful to military purposes does not take place. The safeguards provisions of two international bodies, the European Atomic Energy Community and the International Atomic Energy Agency, have played a large role in the development of the German view of international control of the atom.

From 1955 to 1964 the Federal Republic enjoyed increasing

growth in the nuclear sector of the power industry. At the same time, the government vacillated between the desire for nuclear weapons and nuclear military technology, and the support of international safeguards measures. However, surveys show that German elite and public opinion was overwhelmingly opposed to acquisition of a nuclear military capability.

After 1964 the role of nuclear technology in the economy grew, while official support for a nuclear military role waned. Support for international safeguards increased, partly due to the discussions leading to the Nuclear Non-proliferation Treaty of 1968 (NPT).

The West German decision to sign that treaty outlined the economic and political interests of the nation. By participating in the pre-treaty deliberations, the Federal Republic had been able to protect its nuclear economic considerations in some measure. By choosing to sign, it indicated its regard for its international image. It was concluded that due to much negotiation with other non-nuclear countries, West Germany realized a threshold point where the treaty protected its nuclear economic interests to the extent that enhancing the nation's political image by acceding to the NPT was seen as desirable. If the economic future of West German nuclear technology had not been assured to that degree, the nation would not have signed.

Economic interest must be given greater consideration in international political analysis of technological developments in the future. By concentrating on international events which

occasion a national conflict of interests within many countries, it will be possible to arrive at a clearer indication of the forces at work within the international political system. Similar studies involving other nation-states are needed.