The Challenge of Public Hearings as Experienced in the FRG

by H.–J. Danzmann*

The public hearing is an integral part of the licensing procedure under the German Atomic Energy Act. Section 7 of this Act provides that construction and operation of stationary installations for the production or fission of nuclear fuel, or for the reprocessing of irradiated nuclear fuel, shall be subject to the grant of a licence. The relevant licensing procedure according to Section 7 is laid down in the German Nuclear Installations Ordinance. This Ordinance provides in Section 2, Paragraph 1:

"As soon as the documents (i.e. those required for examination) are complete, the licensing authority shall notify the public of the project in its official gazette and in a daily newspaper which is read in the region of the site of the installation. Reference to this notice shall be made in the German Federal Register."

Paragraph 2 continues:

"The notice shall

(1) state that the application for granting a licence or a preliminary licence has been made and where the documents ... (required for examination) ... are available for inspection by the public;

(2) invite the public to file objections, if any, with a board to be specified in said notice within thirty days after the day following the publication of said official gazette;

(3) fix the date of a public hearing and point out that the objections raised will be discussed during said hearing independent of whether the applicant or the persons who have filed objections will appear or fail to appear."

In the Federal Republic of Germany, there are now 9 power reactors in operation; 8 are under construction, and 15 are in the planning stage. Most of the public hearings for the latter category have already been held. These early licensing procedures and the hearings under the Atomic Energy Act were marked by their peaceful atmosphere. Almost unnoticed by the general public, plans were developed, and the completed plans submitted to the licensing authorities. Because of this lack of any widespread reaction, only a small number of people lodged written objections and appeared at the public hearings. They were almost exclusively persons living in the vicinity of the projected installation, and their objections were aimed at the specific project, not at nuclear energy as such; to summarize, these people were concerned personally. The applicant's representatives were in a position to procede with unchallenged authority. Any direct influence by the public on the authorities' decision, or even an indirect influence on future projects, was wholly out of the question

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because of a lack of information, self-confidence and determination to participate in such decisions. In those days reactor construction firms, utilities and even the authorities could hail the production of energy by means of nuclear fission as the greatest technological achievement and blessing of the 20th century; they could describe it as an absolutely clean source of energy that would not involve any environmental hazards. However, this euphoric way of putting things which, even if not exactly ridiculing critical attitudes, dismissed them as scientifically unsubstantiated, was to boomerang later on.

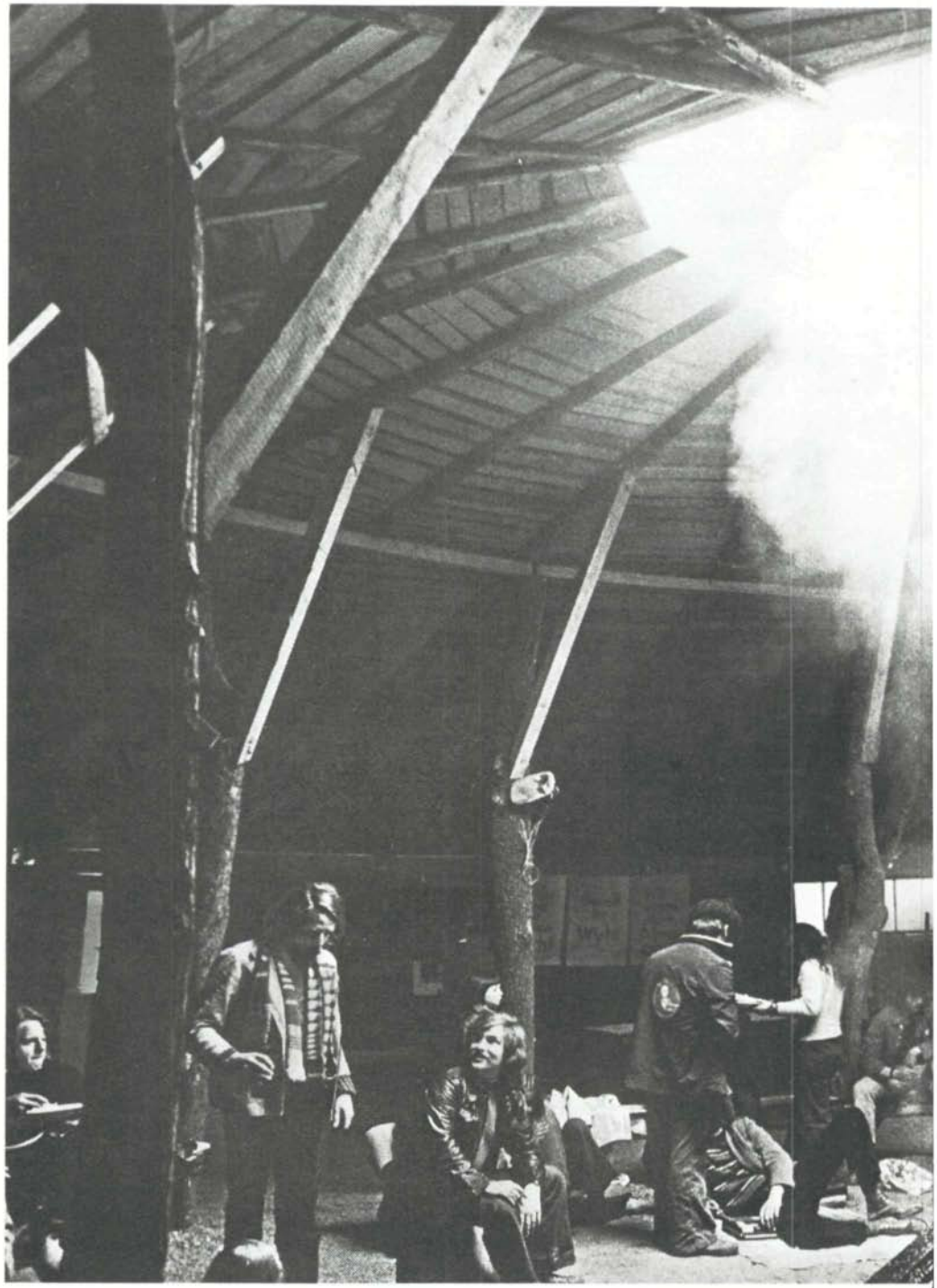
Not that there were no protests: the trauma of the atomic bombs on Hiroshima and Nagasaki was still felt and had been kept alive by the atomic armament race and the nuclear weapons tests of the two super-powers in the fifties and early sixties. However, the fear of radioactive contamination was more an irrational one; it was an instinctive and general aversion; factual knowledge was superficial, partly because the experts did not consider necessary to give such information. Until the late sixties, the nuclear controversy which worries us so much today, did not exist. The reason, however, was not entirely due to the lack of information; the root lay in the prevailing socio-political conditions. The public's confidence in the democratic institutions of the Federal Republic of Germany had not yet been shaken by any fundamental doubt; on the other hand, there was a definite need for and awareness of authority. There was no desire to take an active role in decision-making. There was no outspoken opposition – resistance, if any, was passive.

It is well known that the late sixties saw the onset of politicization of all spheres of life; the purposeful and highly self-confident protest developed into a fashionable and apparently necessary mode of behaviour. No wonder that this wave of protest also swept over the field of nuclear energy. Here mistrust and uneasy feelings, although subconscious, had always been present; now they became articulate.

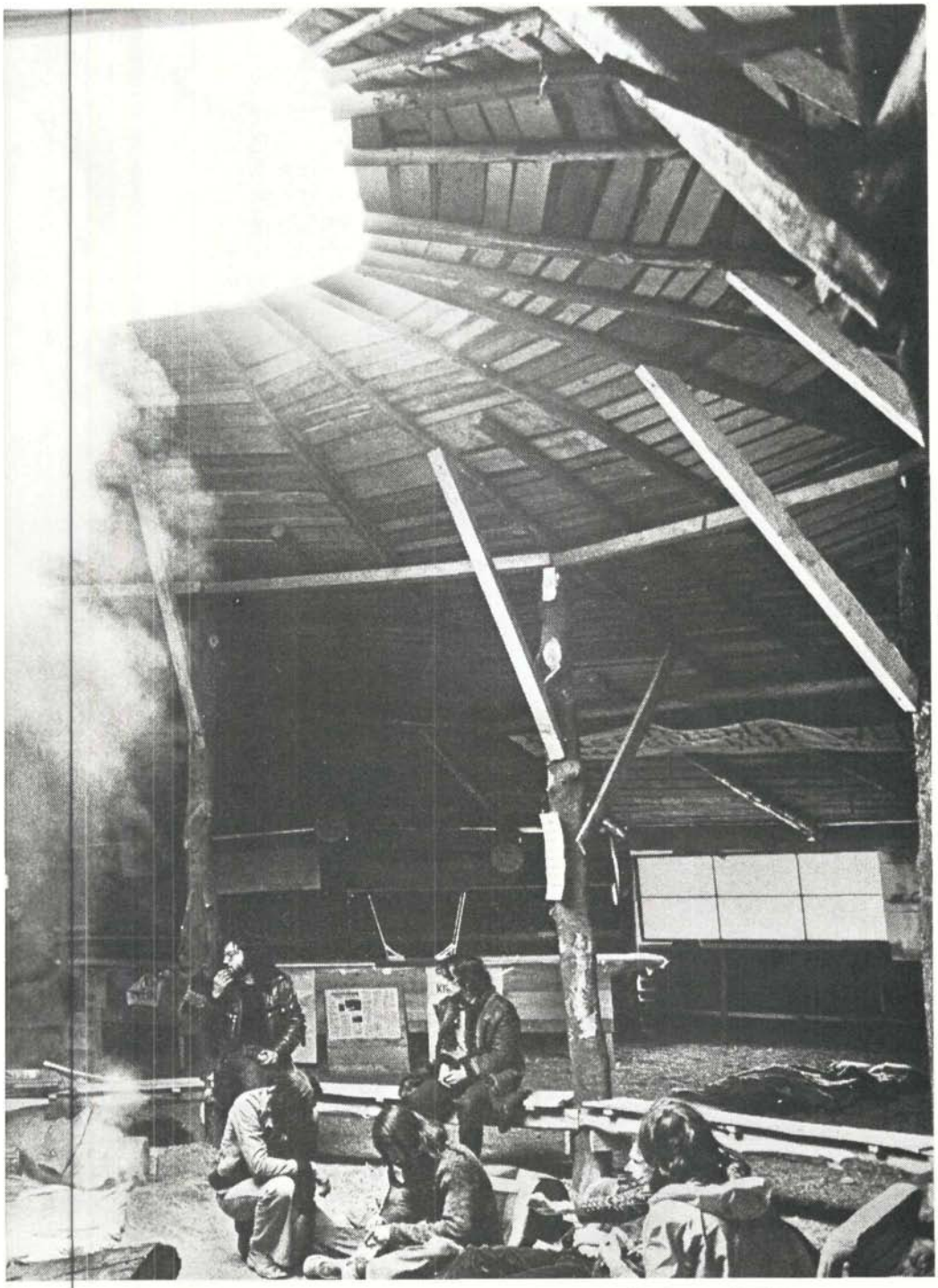
However, as it is impossible in a technically oriented society to set up an opposition lobby arguing emotional aversion, opponents began collecting solid facts and developed into groups which had to be taken seriously by the experts, and which began to exert an influence on policy matters. The nuclear controversy came into existence and forced the nuclear engineers, together with the authorities and advisers, out of their ivory towers and into the battle. Although this movement has several platforms, one of the most important today seems to be the public hearing, as it is here that most problems are argued about, usually heatedly; these verbal attacks are often relentless, lengthy and extremely challenging even to the expert.

Who are the people who should participate in such public hearings? The Nuclear Installations Ordinance gives no information on this. As the public hearing is a legal institution which cannot be circumvented, the licensing authority will at least have to appoint one or several representatives to attend the hearing. The naming of the authority-in-charge is up to the Länder (States) who are responsible for executing the Atomic Energy Act on behalf of the Federal Government; in most cases, this will be the Ministry for Economic Affairs, sometimes in co-operation with the Ministry of Labour. The licensing authority will usually delegate a staff of 5 to 20 to the public hearing, as well as several experts (of the Technical Supervisory Associations, the Reactor Safety Institute, the German Meteorological Service, the Federal Health Office, the Federal Hydrological Institute, etc.).

In general, all public hearings are attended by the applicant's representatives. In many



Protesters who have staged a sit-in at the building site of the proposed Kernkraftwerk Whyl reactor site (Kreis



Emmendingen/Südbaden), gathered in their so-called "House of Friendship". Photo: M. Vollmer

countries, among them the Fed. Rep. of Germany, nuclear power plants are operated by private utilities, and although the operation is not necessarily profitable (let me quote the negative example of Würgassen) profits can, as a rule, be expected; at the same time, the utilities are under an obligation to provide safe and low-priced power. The utilities are interested in establishing good relations with the population; they launch large-scale information and public relations campaigns (although usually with only moderate success, and frequently achieving the opposite effect). It would be inconsistent with this policy of promoting confidence if the utility were to boycott the public hearings. Its representatives often come in teams so that there are experts to comment on all problems which may turn up. But they frequently fail to do so; they often appear to be strangely indifferent. The fault lies partly with the presiding licensing authority, which largely fails to include the applicant's representatives in the technical discussions. The psychological position of the utility company's representatives could also have a paralyzing effect upon their activities. Could it be that their negative image – often systematically created by their opponents – has caused a certain resignation? In addition, the opponents of nuclear energy avoid any direct discussion with them. They concentrate on talking to the authority's representatives and advisers.

This attitude is a tactical one:
the applicant's representatives are their special antagonists; any discussion with them would probably result in a stalemate. On the other hand, the autorities and advisers are considered as neutral although, in the eyes of their opponents, with an obvious tendency in favour of nuclear energy. An alignment with the two groups who cannot plead determinedly for nuclear energy can only result in tactical advantages for the opponents.

Now, who are these opponents of nuclear energy? In the meaning of the Nuclear Installations Ordinance they are not a distinct group, as this Ordinance only refers to representatives of the licensing authority, supported by advisers, applicant's representatives and objectors. Anybody who, within the terms provided for by the law, has filed an objection to the project is an objector. This legislation was intended to protect the wishes of the population in the vicinity of a future nuclear power plant. The public hearing has thus been introduced to clarify the interests of all those concerned by means of direct discussion. The licensing authority has to hear the objectors' arguments, to verify their accuracy, if necessary, in consultation with the applicant's representatives and to take account of them, if necessary, by making certain alterations to the original concept or even by not granting the licence applied for.

It is quite obvious that the population cannot be familiar with the complex technical nature of nuclear fission and reactor engineering nor can it realize or rate the hazards involved in the operation of a nuclear power plant. For the individual, there are, of course, well-founded reasons which speak against the construction and operation of a nuclear power plant in his neighbourhood; e.g. the removal of his house, the seizure of fields, the destruction of the landscape, the nuisance of traffic and noise. Things are quite different when radiation exposure, operational reliability or accident probabilities are concerned. In most cases the layman will have to rely on statements made by others. But on whose statements? In the nuclear controversy, public discussions are characterized by vehement clashes of opinion, and what is described as entirely harmless by one side

is called extremely dangerous by the other. Both the advocates and the opponents of nuclear energy have distinguished scientists in their ranks, well equipped with academic titles. In short, the extremely broad spectrum of opinions and the multitude of "authorities" lead to complete confusion.

In order to understand the attitude of the population in the vicinity of a proposed plant, one has to realize that, before any project has been announced, part of the population will be against nuclear power plants, part will be in favour, and the great majority will be more or less indifferent. In this indifferent majority, a certain goodwill towards the peaceful utilization of nuclear energy would probably be recorded if a decision for or against were taken in an opinion poll: a peace-loving citizen who appreciates his comfortable home and his private car will understand the necessity of securing the supply of energy. For him, as a member of a society that is used to consumption, the historic experience of nuclear destruction is buried, and only a subconscious mistrust of the production of energy by means of nuclear fission is left. And now, all of a sudden, a nuclear power plant is planned in his direct neighbourhood. The situation changes abruptly. Our citizen is confronted with two possible modes of behaviour: he may remain indifferent, as he feels he does not understand the matter or will not be able to do anything about it as an individual, or he could become involved now, however late it may be. Two further alternatives face him: he may either welcome this development (disregarding any potential personal gain), because he is convinced that the production of energy by nuclear fission is sensible, practicable and necessary to maintain his standard of living, etc. and he will put up with certain inconveniences in return, or he may be against the project. Past experience has shown that a majority of the population, once faced with the fact that they will be in the vicinity of a projected nuclear power plant, will turn against the project. Suddenly, the private sphere seems to be directly menaced, the fear of ionizing radiation creates the feeling of a direct threat to one's life; in brief, a majority of the population will begin a passionate fight against the project. Aversion towards a specific project, emerging from a feeling of impending personal danger, will frequently develop into a generalized opposition to the utilization of nuclear energy.

The ambivalence of the statements made by the experts is not apt to calm the public. The multitude of opinions provides an almost inexhaustible reservoir of questions for the public hearing. But most of the objectors who appear at public hearings do not just want to put questions. They come with a clear-cut attitude: they want to fight the project. In an ideal community, the citizen should look upon the authorities as the trustees of his interests. It is obvious that the objectors at public hearings do not have this confidence in their authorities. This is due to a certain discontent with the State, but there are also more concrete reasons: the experts advising the licensing authorities are suspected of being the hirelings of industry, and the dependence of the administration on political decisions is criticized (the need for the energy programme is thought to prejudice the decision of the licensing authority). As these citizens are not aiming at a compromise but want to throw out the project, they have to look for others to represent their interests. This requires both technical knowledge and the skill of a demagogue; the average objector will hardly master these qualities. But there are, in the Fed. Rep. of Germany, several heterogeneous groups which might be called "professional opponents of nuclear energy." It is impossible to know whether the objectors turn to these groups or whether

the "professional opponents of nuclear energy" approach the objectors. At a public hearing anybody, even if not directly concerned, may raise objections provided he has done so in writing within the stipulated terms. In most cases, the opponents of nuclear energy endeavour not to appear as private persons. They collect mandates, and before speaking they announce the number of objectors for whom they speak (usually a high figure). This strategy is used to legitimize as mandatories, in the sense of political parties, the unions and associations fighting against the utilization of nuclear energy. Furthermore, these associations wish to be admitted as legal bodies in proceedings before the administrative courts, so that they may sue the licensing authorities.

Who actually are these professional opponents of nuclear energy? Firstly it must be stated that, after attending several public hearings, it becomes obvious that they do exist. They are the most conspicuous group within the nuclear controversy; they are a very heterogeneous group, but nevertheless a committed body. Although in ever-changing composition, this group represents more or less the same people again and again, and it is their – often identical – arguments that have to be dealt with by the licensing authorities and advisers.

In view of their sometimes excellent sources of information, the question arises as to how far these professional opponents are organized. However, individual fighters, no less vehement, also exist. The organized opponents come from associations concerned with pollution control, who consider the fight against nuclear energy as part of their activities. These associations include the World Federation for the Protection of Life, the Working Group for the Protection of Life, the German Wild-Life Association, the Federal Association of Citizens' Initiatives, an association with the nice name of Dai Dong, and many others.

Finally, there are the semi-institutional opponents, with several university professors and student groups as their focal points. It is debatable how much right the former have to organize followers under their official auspices.

The professional opponents are of diverse background.
They include scientists, housewives, engineers, farmers, college teachers, clergymen; in short they come from all professional and educational levels although, on an average, a higher educational level prevails. Their motivation is as diverse as their background. Among them there are lovers of nature, opponents of growth, misunderstood inventors in the field of energy production, people who are discontented with the State, committed opponents of nuclear warfare, critics of the present-day political system. One can easily note the difference between serious opponents raising scientific and matter-of-fact arguments and those who use their eloquence or their pleasure in public appearances for personal gratification or as a means of advancement. One will find compulsive grumblers and half-wits, vegetarians and theosophists, sectarians and verbal anarchists, for whom nuclear energy is nothing more than a peg for their activities. However – and the author would like to express his own experience in this context very clearly – there is a definite increase in the number of those opponents of nuclear energy who are well acquainted with technological and scientific facts, whose level of information is excellent, whose arguments are sober and sharp, and who are deeply convinced of the danger involved in the utilization of nuclear fission for the production of energy.

Government representatives, including the Federal Minister for Research and Technology, Mr. H. Matthöfer (fifth from left), flanked by members of his staff, at a public hearing in the FRG. Photo: BMFT

The Federal Minister for Research and Technology, Mr. H. Matthöfer (third from right facing audience) at a public hearing on the construction of a nuclear power plant in the FRG. Photo: BMFT

One more word on the way the opponents of nuclear energy argue: Although a general verdict cannot be passed, the observer will be bound to get the impression that the tone of the debates is extremely harsh and even aggressive, that – apart from the applicant's representatives who are hardly accepted as partners in the debate – the representatives of the authorities and, in particular, the advisers, are subject to relentless attacks, and that the natural authority they enjoy at least with the unbiassed public is systematically undermined and destroyed. The professional opponents fight a psychological battle: well-versed as they are in the matter at issue, they eargerly wait for any weakness, factual discrepancy or error on the side of their antagonists, which they will at once exploit polemically, whereas their own mistakes are waved aside with hypocritical reference to the fact that they are only laymen. By discrediting the licensing authority and, in particular, the advisers, they aim at discrediting the project. The public is influenced by the highly emotional and aggressive arguments and by the intended impression that the authorities and advisers are incapable and apparently intend to sacrifice the public's interests to a profiteering industry.

Finally a brief summary of the major topics discussed at these public hearings may be given.

A lot of time is spent on:

(1) *Procedural questions:* At first sight, this seems strange as these problems are of no interest whatsoever for the future operation of a nuclear power plant. But it is part of the tactics of the professional opponents to over-emphasize this point. They hunt for procedural defects, however trivial, in order to have the assembly dissolved and a new hearing fixed; at the same time, this tactic will protract the current hearing. They aim at winning enough time to succeed in embarrassing the authorities by their numerous questions, or to break off a topic, if not the entire hearing, in order to institute legal proceedings later to contest the validity of the hearing. However, concrete procedural questions are also debated, such as the two-month term for filing objections as provided for by the new German Pollution Control Act in contrast to the present one-month term stipulated in the Nuclear Installations Ordinance.

(2) *Questions relating to energy policy:* Here, the scheduled growth rates of energy requirements are criticized, consumption is denounced, and demands are put forward for the maintenance of the quality of life. The one-sided preference given to the interests of industry is a topic which is discussed again and again.

(3) *The question of site:* Any site is considered unfit. Moreover, there are fears that further industries might follow or that further power plant units or whole chains of power plants may be erected later (as on the upper Rhine and the lower Elbe). The necessity of power production by the plant in question is denied in almost all cases.

(4) *The question of landscape:* More significance is attached to this question than one might expect. The rural population which is usually affected, has a tremendous horror of any interference which will spoil **their** landscape (the more so if it is flat) by the erection of an admittedly not very beautiful power plant unit and oversized cooling towers.

(5) *Questions concerning conventional pollution:* These include the heating of water, climatic changes, disadvantageous consequences for agriculture and fishing.

(6) *Questions concerning environmental radiation exposures:* This is the crucial question in the nuclear controversy. The

fear of radioactive radiation is widespread and prominent among the population. The professional opponents criticize the permissible dose rates and deny that the tolerance doses are objectively justified. According to their arguments, the authorities fix the maximum permissible rates in such a way that the utilities will in any case be able to conform with these rates, whereas no consideration is given to the hazards to the population.

(7) *Questions concerning the safe operation of a nuclear power plant:* Fundamental doubts are raised because of the total lack of experience with nuclear power plants of 1,300 MW which are those projected nowadays.

(8) *Accident probabilities:* This subject offers the possibility of using probability numbers to perform downright arithmetical miracles which are very troublesome to refute.

(9) *Questions concerning external effects:* Among the population there is a widespread fear of sabotage and its possibly disastrous consequences. Because of necessary secrecy, the authorities and the utility companies can only give vague assurances that everything possible would be done to exclude sabotage, and this, of course, is not apt to reassure the public. Furthermore, and in spite of the presentation of objective data, it is doubted whether the plant is well enough designed to: withstand the weight of a crashed aircraft. The argument that the nuclear power plant is designed to withstand the impact of a fast flying military aircraft is always countered with the argument that there is no corresponding security against the impact of a civil jumbo jet.

(10) *The question of indemnification:* In this context, it is said that the stipulated indemnification of up to DM 500 million is totally insufficient, since it is argued that, in the case of a reactor disaster, involving a large population, each individual could not expect more than DM 15 000.

This brief summary of some of the major controversial topics may suffice to convey an impression of the multitude of subjects discussed at public hearings. The nuclear controversy will go on, and an escalation is to be expected in view of the volume of nuclear plants planned by the German Federal Government. Advocates of nuclear energy will deplore this development, and power economists will continue to be greatly concerned. The State will have to create and encourage confidence in its citizens in its measures concerning the utilization of nuclear energy. A democratic state cannot and must not enforce measures relating to energy policy – even if they are obviously necessary – against the majority of its citizens.