

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

July 18, 1974

Chairman Ray
Commissioner Doub
Commissioner Kriegsman
Commissioner Anders

BRIEFING ON PREPARATION OF IAEA CODES AND GUIDES

The Executive Assistant to the General Manager has requested that the attached memorandum and enclosures be circulated to determine your interest in attending a supplemental one-hour Briefing by Herbert Kouts, RSR, and Herbert Brown, DRGL, on developments at the Vienna "Consultation Meeting", held June 30 to July 4, to develop recommendations for an effective IAEA program to prepare safety codes and guides. If warranted by Commission interest, the Briefing will be scheduled as Commissioner availability permits.

49

Paul C. Bender
Paul C. Bender
Secretary of the Commission

Attachment:
July 16 memo
and enclosures

cc: Robert A. Kohler, EAGM

TO: Secretary of the Commission

Date

SUBJECT: BRIEFING REQUEST NO. 49

I would attend.

I would not attend.

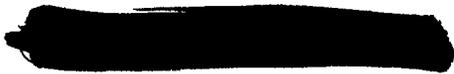
Signature

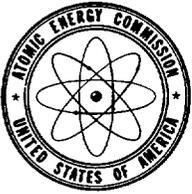
WHEN SEPARATED FROM THIS DOCUMENT HAS BEEN DECLASSIFIED UNDER
HANDLE THIS DOCUMENT THE PROVISIONS OF EO 12958 DATED 4/17/06
OFFICIAL USE ONLY

Michael J. W... #30480
(Declassification Authority/Number)

Date of Declassification 05/04/2000

Document Transmitted
Hereby
NATIONAL SECURITY INFORMATION





UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

JUL 16 1974

Paul C. Bender
Secretary

REQUEST FOR BRIEFING

Please poll the Commissioners to determine their interest in having Herbert Kouts, RSR, and Herbert Brown, DRGL, brief them on the subject of IAEA Codes and Guides. The scope of the briefing and the topics to be covered are discussed in the attached memo. It is expected that the briefing could be conducted in one hour.

Robert A. Kohler
Robert A. Kohler
EAGM

Attachment:

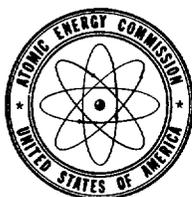
Memo to the Files fm HJCKouts, RSR,
"IAEA Codes and Guides," w/att.

Department of Energy
National Security Information

OFFICE OF THE SECRETARY

74 JUL 16 PM 3:56

RECEIVED



[REDACTED]

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

Document ID: [REDACTED]
Herbert Kouta, RSR

Memo to the Files

IAEA CODES AND GUIDES

The following is a report on the trip made by Herbert Brown and me to Vienna, June 30-July 4, 1974, to attend a "consultation meeting" to develop recommendations for an effective IAEA program to prepare safety codes and guides.

The outcome can be summarized briefly by the point that we were successful in getting the "consultation meeting" to propose a course of action that should now get the IAEA started on its path of developing codes and guides. This will follow almost exactly the line that had been developed in the document GOV/1656/Mod 1 (21 May, 1974), containing "The Agency's Programme for 1975-80 and Budget for 1975," in an Annex that was deleted by the Board of Governors because no agreement had been reached. To get agreement by the consultation meeting, we concurred in establishment of a more active role by the Senior Advisory Group, which will be expected to meet frequently to review guides during their evolution, and to ensure that guides are "fully representative of national practices." This being precisely the character we believe the guides should have, we felt we had not given up anything.

The successful outcome was helped by a moderating role by the U.K. representative (Gronow) and by positive positions at crucial times by the French representatives (Tanguy, Messiah, and Clement), clearly the outcome of the steps we had taken in Paris at the start of our trip to emphasize our desire to improve contacts with the French AEC in reactor safety. We lost ground in our relations with the Germans, represented by Berg and Frantzen, who were argued into substantial compromise before an agreement was reached. They departed in a mood somewhat cool to us. We shall have to take steps to repair this situation.

The Recommendation. This is attached. It is seen to be an expansion of the Annex mentioned above, with some modification. We are satisfied with it. It should now get the work under way, after the September Board has considered the recommendation. We strongly emphasized that our document should not be modified in any way by the Agency staff, even to clean up grammar, because we wanted no changes that could alter the outcome or the meaning. The important Agency people involved (Chernilin, Servant) said this document was completely satisfactory to them in providing terms of reference for the program. If anything, they regarded it as an improvement on the original Annex.

SUBJECT TO GENERAL DECLASSIFICATION SCHEDULE OF EXECUTIVE ORDER 11652 AUTOMATICALLY DECLASSIFIED AT TWO YEAR INTERVALS UNLESS INDICATED OTHERWISE ON THIS PAGE

1980

NATIONAL SECURITY
INFORMATION

[REDACTED] Subject to
General Declassification

National Positions. We were fully supported in our positions by the representatives from Japan, Sweden, and Czechoslovakia. Other neutrals were usually neutral on our side. The British representative stayed strictly in the middle and was very helpful in solving problems through manipulating the English language. The French were apprehensive, but were cooperative when we needed them. The Germans fought every step of the way. Each time we felt we had understood their problems and had modified our position to take their concerns into account, they changed their story. The German position up to the end was one that would prevent the Agency from issuing guides without a positive finding being made (such as by the Senior Advisory Group) that a "collation of national practices" was insufficient to constitute the basis for Agency advice and guidance. We took the position that the Agency must issue specific guides on every subject for which a guide is needed, and that in general these guides will rest on a "collation" of national practices. But there must be no need for a positive finding before the Agency proceeds to complete and issue a guide. We made it clear we would not budge from this stand, and we felt the German position to be obstructionist. They finally gave in to our last suggestion, which was to allow the Agency to proceed in an orderly way, with reviews at frequent intervals by the Senior Advisory Committee. A first stage of guides and codes will be defined by the Senior Advisory Committee, and this will show how it all works out.

Why the German Position? Several reasons have been given.

1. They do not have the manpower to support the Agency properly in this effort. (I am sure this is true. The German regulatory staff plans to call on German industry for help in providing their part of the assistance the IAEA will need. I suggested the German Centers at Karlsruhe and Jülich might also help, but for unclear reasons the idea was received without enthusiasm.)
2. Standards do not yet exist to describe approved German reactor designs, and the Germans do not want to follow the U.S. policy of written standards. They will depend on superior persons in fulfilling the needs of design and regulation, rather than on well-defined written standards. They resent our trying to force them into our pattern.
3. They believe we are trying to gain a commercial advantage in the international arena, through having the Agency press early into writing standards, an area where we now dominate. This might even be pushed to such a point that, in the absence of standards from other countries, the Agency publishes just U.S. standards. This would give the U.S. an enormous advantage in the world market.

4. The Germans may feel that we are trying to get commercial advantage in other ways that are not readily identified, and that the defeat of these proposals would help to frustrate any such attempts on our part.

I suspect all these have come into play.

Prognosis. There will be further moves to delay and oppose the Agency's efforts in this area. The Germans are likely to take some steps at the September Board Meeting, and they will have sought further French and U.K. support before then. This opposition could go so far as repudiation of the agreement we have reached. There will certainly be continued suspicion and foot-dragging by the German member of the Senior Advisory Group. He will get some support from the French, but no appreciable support elsewhere.

Our Recommended Course: 1) Keep a firm position, including, however, a willingness to discuss objectively any substantial problem that may be brought up; 2) Press direct relations on reactor safety with the three countries -- FRG, U.K., France -- to allay suspicions and develop a common view; 3) Be sure we are well prepared for meetings of the Board and the Senior Advisory Group, as concerns this Agency program.

H. J. G. Kouts
for Herbert J. G. Kouts, Director
Division of Reactor Safety Research

Attachment:

"The Agency's Plans for Establishing
Safety Codes and Guides for Nuclear
Power Plants" (Draft)

THE AGENCY'S PLANS FOR ESTABLISHING SAFETY CODES AND GUIDES
FOR NUCLEAR POWER PLANTS

Introduction

1. The safety of nuclear power plants in any country rests on many requirements. One is an adequate supply of trained personnel for the work involved and to staff a regulatory agency. Another is the ability to conduct a careful and detailed safety evaluation of a nuclear power plant project from its inception and at all stages throughout plant life. A third is the ability to conduct an appropriate quality assurance program including control and inspection. If these requirements are met, it is possible for the authorities of the country to assure themselves that nuclear power plants can be built and operated safely. Formalized safety criteria in the form of codes, guides, etc., can be of considerable assistance in ensuring that these basic requirements are understood and met. It must be emphasized, however, that safety criteria cannot be treated in isolation, and can only be used effectively by qualified personnel. Similarly, it is essential that regulatory and project personnel of a country proposing to build a nuclear plant obtain in-depth knowledge of the characteristics of the type of plant it plans to build and operate and of the available body of pertinent information related to safety and regulatory activities, particularly in the country of origin of the plant.

2. The rapid growth of nuclear power projected both in industrialized and developing Member States had led to a re-evaluation of the role the Agency should play pursuant to Article III A.6 of the Statute in the area of nuclear power plant safety. Accordingly, the Agency is developing a program responding to all the safety requirements referred to above. Only the part concerned with safety codes and guides is dealt with in this document, which is based on paragraph J 144 in document GC(XVIII)/526. It is clearly understood that such codes and guides can only be in the nature of recommendations, except when otherwise provided for in the Agency's Statute, as decisions on safety matters are, in the last resort, a matter for national authorities. During the initial period of the development of nuclear power, the Agency was not in a position to develop safety criteria except in a few fields. Hence, a case-by-case approach to matters of nuclear power plant safety and safety-related reliability was often adopted by the Agency, an approach more time-consuming and less consistent in its results than if such criteria were available.

[REDACTED]

3. It is clear that such a case-by-case treatment of safety is not adequate in the context of a rapidly expanding world-wide use of nuclear power and the associated international trade. As in several other fields, it is desirable to collate existing practices and to begin to prepare safety codes and guides that could be used by regulatory bodies, utilities, designers and constructors, especially in view of the number of countries embarking for the first time on nuclear power programs and in the process of setting up their own regulatory procedures. It is now possible to collate existing safety criteria and experience and to begin to prepare such safety codes and guides as could be used by the Agency in advising interested Member States. Although these codes and guides establish an essential basis, they may not be sufficient or entirely applicable. In some cases, in response to particular circumstances, additional requirements may be established. Moreover, there will be special topics which have to be judged by experienced experts on a case-by-case basis.

4. The Agency, therefore, has put forward plans to accelerate its work on codes and guides for nuclear power plant safety foreseen for the period 1975-80 and intends to try to collate and develop a comprehensive set of recommendations, as far as possible and necessary, for the safety of nuclear power plants, together with the reliability requirements directly related to safety, which would serve as a standard frame of reference for analyzing nuclear plant safety and reliability. These recommendations should be supplemented to the extent possible by detailed guidance related to specific topics for their practical implementation.

Outline of the Program

5. In order to reflect the different approaches which are possible, the program for this work should take into account national standards, guides, and practices, the contribution which could be made by Member States having experience in the matter of nuclear power plant safety, and the activities of other organizations. The objective of the program is to collate and develop recommendations, as far as possible and necessary, for the safety of thermal neutron power plants.

5a. In evaluating what is possible the following items should be taken into account:

- (1) The amount of relevant knowledge and experience accessible as a basis for useful recommendations; and
- (2) The expert manpower and other means available for implementation of the procedures of this program.

- [REDACTED]
- Sb. In evaluating what is necessary, the following items should be taken into account:
- (1) The types of recommendations which are most important for the safety of nuclear power plants;
 - (2) The types of recommendations which are requested by Member States soliciting advice or assistance from the Agency; and
 - (3) The types of recommendations which the Agency needs for Agency projects.
- 5c. In pursuit of the objective of the program the Secretariat has drawn up a plan of action aiming at the development of three types of documents as outlined below; maximum use being made of existing documentation and experience available in national systems:
- (1) Codes of Practice for thermal nuclear power plants which would establish the objectives and minimum requirements which must be fulfilled to provide adequate safety for these power plants, their systems and components.
 - (2) Safety Guides which would recommend a procedure or procedures that might be followed to implement the Code of Practice. In order to provide for Agency safety guides, the various existing national guides, standards and practices shall be collated. This collation will be made to ensure that Agency guides are fully representative of relevant national practices. Such a fully representative picture is a prerequisite to the drafting of an Agency safety guide.
 - (3) Users' Manual which would be directed primarily to nuclear power plant operators and would normally present one or several possible methods and techniques to solve specific problems. As regards Users' Manuals the Agency might, at an appropriate time, provide for an evaluation of the need and possibility for their development.
6. Five main fields have been identified on which work could be started immediately, namely governmental organization, siting, design, operation, and quality assurance.
- [REDACTED]

7. Work on codes and guides would be initiated by small working groups consisting of two or three experts and Agency staff members. The groups will prepare working documents and should have available relevant documents relating to national and international standards and practices collated by the Agency.
8. Technical review committees specialized in each of the five main fields of safety mentioned in paragraph 6 should be established. Each working document should be submitted to the appropriate technical review committee. These committees should review the documents submitted by the working groups and prepare draft codes and guides. Each committee should include four to six experts from Member States.
9. The Agency should be advised in this program by a senior advisory group. This group should exercise general surveillance over the development and direction of the program, define the priorities to be established, and advise on the acceptability of the draft codes and guides. The group should consist of about ten eminent experts from Member States in which the regulation of nuclear power plants has reached a level of relatively high development.
10. All draft codes and guides prepared by the technical review committee should be reviewed by the senior advisory group. The recommended drafts should then be submitted to Member States for comment, which should be provided within three months. Any comments provided should be taken into account in preparation of the final versions of Agency codes and guides.
11. The program should be initiated in a first stage, during which work is conducted on a limited number of codes and guides selected by the senior advisory group. The senior advisory group should follow the program closely during this first stage paying particular attention to the development of the fully representative collation of national practices which is required as a prerequisite to the drafting of an Agency safety guide, in order to ensure that the requirement set out in paragraph 5b is met and the work could usefully proceed on the guide. The senior advisory group should meet to review the state of development of codes and guides frequently as deemed necessary. The group should prepare reports to the Director General at such intervals as may be appropriate, providing an evaluation of the effectiveness of the program and, in particular, reporting difficulties encountered in preparing suitable codes and guides. It is recommended that these reports be submitted by the Director General to the Board of Governors as soon as possible thereafter, together with any observations he may wish to make, with a view to permitting the Board to take appropriate action if deemed necessary on a timely basis. Subsequently, the senior advisory group should continue this activity in such detail as it deems necessary in the light of experience gained.

12. It is felt that the difference in the nature of the types of documents proposed, as well as the step-by-step process of collation and developing safety codes and guides by the Agency with the aid of experts from Member States, would provide a flexible and progressive approach. It is hoped that the objectives of the first phase of the program could be attained by completing the work on priority codes and guides in a period of about two years.

13. For a provisional program of work which has been drawn up by the committee referred to in paragraph 4 above and which embraces the compilation review and issue of five codes and 47 guides, preliminary estimates indicate that total costs for the years 1975 and 1976 would amount to approximately \$700,000 and the costs of Secretariat staff.

[REDACTED]