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DOCUMENT 1-852/81

REPORT

drawn up on behalf of the Committee on
Energy and Research

on European nuclear safety policy

Rapporteur: Mrs A.-M. LIZIN

On 4 December 1980, Mr MICHEL tabled a motion for a resolution on nuclear safety policy (Doc. 1-668/80) in the European Parliament pursuant to Rule 25 of the old Rules of Procedure.

On 9 and 12 February 1981, Mr COPPIETERS and others tabled two motions for resolutions on the nuclear accident in La Hague (Doc. 1-870/80) and (Doc. 1-913/80) in the European Parliament pursuant to Rules 25 and 14 of the old Rules of Procedure.

On 15 December 1980, 9 and 13 February 1981, the European Parliament referred these motions to the Committee on Energy and Research as the committee responsible.

On 20 January 1981, the Committee on Energy and Research appointed Mrs Anne-Marie LIZIN rapporteur. It considered these motions at its meetings of 24 September 1981, 10 November 1981 and 2 December 1981. At its meeting of 2 December 1981, the committee adopted the motion for a resolution and explanatory statement by 22 votes to 5 with 3 abstentions.

Present: Mrs WALZ, chairman, Mrs LIZIN, rapporteur, Mr BEAZLEY, Mr CALVEZ (deputizing for Mr PINTAT), Mr CAPANNA, Mr CROUX, Mr K. FUCHS, Mr GALLAND, Mr GHERGO, Mr HERMAN (deputizing for Mr van ROMPUY), Mr K.H. HOFFMAN (deputizing for Mr MÜLLER-HERMANN), Mr LINKOHR, Mr MARKOPOULOS, Mr MEO, Mr MORELAND, Mrs PERY, Mr PETERSEN, Mr PRICE, Mr PROTOPAPADAKIS (deputizing for Mr PAISLEY), Mr PURVIS, Mr RINSCHÉ, Mr ROGALLA, Mr ROGERS (deputizing for Mr ADAM), Mr SABY (deputizing for Mrs CHARZAT), Mr SASSANO, Mr SCHMID, Mr SELIGMAN, Mr VANDEMEULEBROUCKE (deputizing for Mrs BONINO), Mrs VIEHOFF (deputizing for Mr GALLAGHER), Mrs WEBER (deputizing for Mr PERCHERON).

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A

The Committee on Energy and Research hereby submits to the European Parliament the following motion for a resolution together with explanatory statement

MOTION FOR A RESOLUTION

on European nuclear safety policy

The European Parliament,

- having regard to the motions for resolutions tabled pursuant to Rule 25 (Doc. 1-668/80) and (Doc. 1-870/80) and Rule 14 (Doc. 1-913/80) of the old Rules of Procedure,
- having regard to the report of its Committee on Energy and Research (Doc. 1-852/81),
- having regard to its previous resolutions,
 - report by Mrs WALZ on Community policy on the siting of nuclear power stations, taking account of their acceptability for the population (Doc. 392/75)¹;
 - report by Mr NOË on the need for a Community policy on the reprocessing of irradiated fuels and materials (Doc. 69/76)²;
 - report by Mrs WALZ on the draft Council Resolution concerning consultation at Community level on the siting of power stations, and on the proposal for a Council Regulation concerning the introduction of a Community consultation procedure in respect of power stations likely to affect the territory of another Member State (Doc. 145/77)³;
- report by Mr FLAMIG on measures to be taken in connection with the removal of radioactive waste as part of Community energy policy and on the proposal from the Commission of the European Communities to the Council for:
 - a draft Council resolution on the implementation of a Community plan of action programme in the field of radioactive waste,
 - a draft Council decision on the setting up of a high-level committee of experts responsible for assisting the Commission in the implementation of the plan of action in the field of radio-active waste,
 - a draft Council decision on the setting-up of an ad hoc committee for the processing of irradiated nuclear fuels (Doc. 576/77)⁴,
- report by Mr VERONESI on the proposal from the Commission of the European Communities to the Council for a decision adopting a programme of research for the European Atomic Energy Community on safety in thermal water reactors (indirect nuclear action) (Doc. 411/78)⁵,

¹OJ No. C 28, 9.2.1976

²OJ No. C 125, 9.6.1976

³OJ No. C 183, 1.8.1977

⁴OJ No. C 85, 10.4.1978

⁵OJ No. C 296, 11.12.1978

- report by Mr FLAMIG on the proposal from the Commission of the European Communities to the Council for a Decision adopting a programme concerning the decommissioning of nuclear power plants (Doc. 473/78)¹,
- report by Mr VERONESI on the proposal from the Commission of the European Communities to the Council for a decision adopting a research programme for the European Atomic Energy Community on codes and standards for fast breeder reactors (structural integrity of components) (Doc. 493/78)¹,
- report by Mr MITCHELL on the operation of the EURATOM inspectorate with particular reference to the allocation of duties between the Commission of the European Communities, the Governments of the Member States and the International Atomic Energy Authority in respect of the inspection of fissile materials in the EAEC (Doc. 3/79)²,
- resolution by Mrs WALZ and Mr FLAMIG on the accident at the Three Mile Island nuclear power station (Doc. 81/79)²,
- report by Mr GHERGO on the proposal from the Commission of the European Communities to the Council for a decision adopting a five-year research and training programme (1980-1984) of the European Atomic Energy Community in the field of biology-health protection (radiation protection programme) (Doc. 1-552/79)³,
- report by Mr SELIGMAN on the proposal from the Commission of the European Communities to the Council for a decision adopting a research and development programme for the European Atomic Energy Community on the plutonium cycle and its safety (1980-1984) (Doc. 1-813/79)⁴,
- report by Mrs Von ALEMANN on the siting of nuclear power stations in frontier regions (Doc. 1-442/80)⁵,
- report by Sir Peter VANNECK on a nuclear energy moratorium (Doc. 1-49/81)⁶
- having regard to the nuclear safety code of the Economic and Social Committee;
- having regard to the communication from the Commission to the Council on the technological problems of nuclear safety, third progress report (COM(81) 213 final);
- having regard to the communication from the Commission to the Council on the safety principles for light-water-reactor nuclear power plant (COM(81) 519 final);

¹OJ No. C 6, 8.1.1979

²OJ No. C 127, 21.5.1979

³OJ No. C 34, 11.2.1980

⁴OJ No. C 147, 16.6.1980

⁵OJ No. C 327, 15.12.1980

⁶OJ No. C 144, 15.6.1981

- having regard to the report on 'nuclear safety in the context of the European Communities' by a group of experts on nuclear safety (COM(80) 808 final);
 - whereas an analysis of all situations which could lead to malfunctioning in nuclear power stations is an essential requirement for nuclear energy development which respects the basic principles of safeguarding public health and the environment;
 - whereas European nuclear safety policy must take account both of the safety of workers and of the safety of the population at large,
 - whereas the Community can play a role in encouraging the harmonization of safety standards,
 - whereas nuclear energy, as one of the sophisticated technologies of the twentieth century, must be harnessed for the peaceful service of mankind for social and economic progress through efficient consultation procedures for the siting and operation of power plant ensuring the best available security of workers and the population,
 - whereas the problem of nuclear safety is a Community issue and adequate solutions have to be found at Community level, while maintaining efficiency and only restricting the independence of the Member States to the extent that is unavoidable,
 - whereas the aim in this field is to create a unified nuclear safety zone in Europe,
 - whereas the aim in this field is the adoption of the best existing codes of safety practised by the signatory states of the International Atomic Energy Agency,
1. Invites the Commission to back up its directive of 15 July 1980 on basic standards with specific Community instruments covering casual workers, occupational illnesses resulting from irradiation, methods of monitoring population radiation doses and the principle of optimization, and, in this last area, to arrange for cooperation with workers' organizations;
 2. Highlights the importance of present discussions by Member States for the implementation of the EAEC Directive of 15 July 1980 on basic safety standards;
 3. Renews its belief that electricity undertakings in the Community must invest in nuclear power to the attainment of the Community's 1990 Energy Objectives and for the political and economic independence of Member States and their citizens;
 4. Encourages those Member States which have not yet invested in nuclear electricity generating plant to examine the performance and experience of electricity undertakings in those Member States which are implementing nuclear energy programmes;
 5. Considers that precise European standards specific to each type of reactor should be devised under the supervision of the Commission, dealing directly with the detailed aspects of the design, construction and operation of power stations and their components, which would enable an effective electronuclear policy to be implemented throughout the Community;

6. Invites the Commission to press for the implementation in practice of its recommendation of 16 November 1960 on the application of Article 37 of the Euratom Treaty;
7. Emphasizes the need to achieve speedy progress on criteria to harmonize siting from the point of view both of safety and seismic conditions and of the requirements for installations to be at a safe distance from civil and military airports and all military targets in general, and to introduce a democratic consultation and arbitration procedure, provided that this is done efficiently and without delaying materially the attainment by each Member State of indigenous energy self-sufficiency or the best possible level of indigenous energy production;
8. Attaches considerable importance to the question of direct and indirect research on the Super-SARA project which should be given sustained support and a regular allocation of budgetary appropriations;
9. Considers that the Commission should invite the Member States to compare notes on their nuclear emergency planning to permit the harmonization of basic criteria, a precise assessment of the investments needed and the scope for mutual assistance;
10. Invites the governments of the Member States to prepare all the road, hospital and telecommunications infrastructure needed for an emergency,
11. Proposes that the Commission should set up a European Information Service to collate information on the operation of power stations in Europe and elsewhere by means of appropriate agreements with the states involved throughout the world, analyse the data provided, carry out the technical studies needed for the definition of standards, taking into account international initiatives already in progress and to coordinate the activities of the Member States with a view to proposing, on the basis of information obtained, appropriate measures to deal with breakdowns and to examine whether computer analysis of breakdowns can serve the objectives of improved safety, and to this end, wishes to see a first step made by creating a Community legal instrument which would make it obligatory to supply detailed information on unusual incidents; the second step should be for this information and control service to act as the supreme European authority as from 1 January 1983 by analogy with the European Association for Cooperation and the Commission should submit proposals to this effect in due course; this will ensure that all the relevant national bodies and experts are involved in its work;
12. Notes that, given the long-term safety requirements, it is desirable, in the light of current industrial applications and the special risks involved, that the processing of irradiated fuels and waste storage should be subject to harmonized standards;
13. Calls on the Commission to draw up a report on the problem posed in safety terms by the growing amounts of nuclear waste accumulating within the Community;

14. Calls on the Commission to draw up a report on the application of the IAEA 50 C-G code by the Member States to permit direct monitoring by public bodies;
15. Asks the Commission and Member States to verify that electricity undertakings include the cost of contingent decommissioning of power stations in the price charged for electricity and that this cost should be shown transparently in the electricity tariff structure;
16. Considers that the concept of a unified safety zone which it favours would involve:
 - (a) regulatory measures to enable a full range of Community standards to be drafted for the protection of workers, the population and the environment from nuclear radiation; this would include more comprehensive directives on basic standards (direct exposure and exposure from waste), Community instruments relating to the prevention of accidents and the accidental release of radioactive substances, the dismantling of contaminated installations and waste storage; regulatory measures covering all action in transfrontier regions in the event of accidents;
 - (b) coordinated administrative measures to allow the Member States to carry out their three-fold task of authorization, regulation and supervision; more attention needs to be given in future to cooperation between the two sides of industry;
 - (c) more extensive research on reactor safety and the fuel cycle; a comparison of the various systems and different methods of processing or treatment based on the most advanced methods of accident risk analysis;
 - (d) institutional measures to strengthen the Commission services and to set up an information service (data bank, technical advice, coordination of action in the event of serious accidents);
17. Emphasizes that safety requirements, the need for which is beyond dispute, should not become a pretext for hindering the development of nuclear energy in cases where this is essential, i.e. where it enables the Community to reduce its excessive dependence on third countries for hydrocarbon fuels; reaffirms that one of the basic aims of the Community's energy strategy is to reduce rapidly its dependence on oil as has also been noted by the Commission of the European Communities in its Communication to the Council¹ of 1 October 1981 on the Mandate of 30 May which states 'The development of nuclear energy is vital to ensure security of energy supply and one of the main ways of reducing dependence on oil';

¹The development of an energy strategy for the Community (COM(81) 540 final)

18. Considers that international cooperation is not only useful for the exchange of scientific knowledge but can also play an effective and vital role in responding to the widespread need to reassure public opinion of the high level of safety in the nuclear energy industry, particularly relative to safety levels in other industrial sectors, and to win the confidence of those sections of public opinion which are agnostic or antagonistic to the peaceful use of nuclear technology;
19. Instructs its President to forward this resolution and the report by its committee to the Council and the Commission and to the Presidents of the national Parliaments for the information of their specialist committees.

EXPLANATORY STATEMENTI - INTRODUCTION

1. The European Atomic Energy Community has not been able to prevent its Member States developing different and in some cases divergent, nuclear policies. This was no doubt inevitable given the technical links between military nuclear applications and non-military nuclear applications and the influence of options in one on the other.
2. Looking back over the last twenty years, we find that reactor safety¹ and the protection of workers, populations and the environment did not play a decisive role in the initial choices of nuclear systems.
3. Be that as it may, times have changed and the Community is now paying more and more attention to nuclear safety and protection. Safety has become a right and must play an integral part in any decisions in the nuclear field. The Parliament considers that there is a need for discussions to define and improve the methods of integrating this highly-sophisticated twentieth-century technology into a democratic process of control.

The idea of a European nuclear safety area, a unified nuclear safety zone, is gaining ground given the scale of the responsibilities and the difficulty of the tasks facing the Member States in a field to which public opinion has become highly sensitive.

4. Gradually, therefore, but too slowly, the use of nuclear power in Europe for non-military purposes is transcending nationalism and the sectarian policies of its early days. Superphénix was only possible because of a joint European effort and its future will therefore be European. The question which everyone is asking now is whether this prototype will remain unique or whether it will lead to a series of fast breeder power stations which will require an enormous reprocessing industry to supply plutonium. This debate has begun at the same time

¹The term 'safety' is nowadays normally only used to refer to the range of measures taken to avoid accidents or incidents while the term 'security' relates to measures to prevent arms proliferation, misuse of fissionable materials, sabotage, etc. The term accident is used to describe any event caused by or causing a breakdown or malfunctioning which could lead to a higher level of exposure to radiation than that involved in normal operations (definition from the safety of the nuclear fuel cycle AEN OECD, May 1981)

in all the Member States and it will no doubt be at national level that the decisions will be taken. But this does not preclude a European debate on the whole safety issue or measures being taken at this level to ensure that every technical system used now or in future in Europe provides the optimum protection for workers, the population and the environment.

5. Although the environmentalists had done a great deal of the groundwork it took the accident at Three Mile Island to generate a general feeling of concern. In this respect this incident was highly instructive.¹

6. While some people emphasize the fact that there was no loss of life and little contamination, others note that the least hazardous and most reliable nuclear system was nevertheless involved in what may be described as a serious incident because the cladding of a section of the core melted and released fission products.

7. At all events this incident revealed certain weaknesses in the Nuclear Regulatory Commission which had after all been considered exemplary as an organization for nuclear safety because it covered the three major functions of specifying standards, licensing and monitoring and was represented on the site of every power station. This accident emphasized the need for a sufficient quantity of qualified technical personnel to be permanently present on the site and from now on this should be included in any discussion of the application of safety standards. There were weaknesses even at the level of equipment design and shortcomings in routine management were revealed by the fact that those responsible had allowed the power station to operate during a period in which the emergency pumps had been removed and later these were reinstalled without checking that the valves had been reopened.

8. Given this accumulation of human error and technical faults, some incline to the view that the fact that there was no loss of life shows how the dangers of PWR nuclear power stations have been exaggerated. Others, like the rapporteur conclude that the public authorities have taken far fewer precautions than they thought. And that Europe must learn from this experience!

¹ Although relatively little attempt has been made to analyse the accidents which have occurred, particularly from the point of view of post-accident control procedures, important studies have been carried out into the causes and likelihood of potential accidents: the most important of these studies was the RASMUSSEN (WASH 1400) report which has been taken up by various national organizations and adapted to their specific circumstances; mention should also be made of the LOFT project in the United States which showed that the assumptions generally adopted for LOCA (loss-of-coolant accidents) were particularly pessimistic but resulted in greater safety than envisaged.

9. Compared with limiting the radiation to which human beings are exposed and the radiation from radioactive waste released into the environment during normal running, the prevention of major accidents has assumed an importance which it did not have before TMI, although earlier accidents had also been studied. The danger of major accidents of a different kind (chemical explosions and fires) which could affect installations reprocessing nuclear fuels, was highlighted only this year in Europe. This is a further reason for this heightened awareness.

10. Good-neighbour relations between the Member States of the Community, which is one of the main *raison d'être* of Europe, are also an important aspect because many of the power stations are close to frontiers or located on rivers or coasts with other Member States downstream. The accidental release of radioactive substances could seriously affect neighbouring countries.

11. Ideally, basic standards relating to waste produced by normal functioning and specific standards under Article 124 relating to the safety of reactors and installations should be given the same mandatory Community status because both these areas are equally important.

And in the same way as the Commission explicitly claims the right under the Treaty to be informed of the level of radiation and to check the efficacy of the steps taken by the Member States to measure this, it should also seek to exploit to the full its legal instruments, including the use of Article 203, to ensure that national systems of accident prevention and the supervision of installations effectively ensure adherence to European safety standards.

12. Only the Member States are empowered to license nuclear installations and organize supervision of their operation. But if Europe is to become the unified safety zone which we propose, their freedom of decision, particularly in relation to the choice of location, must be accompanied by an agreement on consultation and arbitration procedures.

13. In this respect precautions will have to be taken to prevent voluntary or imposed silence on the part of those responsible and the European nuclear zone will have to become more transparent. More than any other applied science, nuclear technology was developed under conditions of secrecy. A conspiracy of silence has the worst possible effects for producers of electricity and the population because it surrounds the entire field of nuclear activity with an air of mystery. In fact the knowledge that public supervision exists is likely to benefit all those concerned. Only such public supervision and the

independence which it would guarantee to the experts, can provide a guarantee of objective analysis. Critical analysis of malfunctioning and its causes can help improve standards and remove the causes of accidents. Covering up or an exaggerated sense of discretion can only hinder this process.

14. Critical analysis may of course lead to conflicts of views between the technical experts in different national institutions or between national and European technical experts. There are those who wish to avoid such conflicts but I am sure that Parliament shares the view that they should be regarded as useful since they can lead to clearness of thinking, greater care, and greater confidence in the precautions taken and the monitoring systems employed.

15. The permanent nature of the risks involved in long-life isotopes mean that nuclear pollution is virtually irreversible in a way that other types of pollution are not, except in the case of a small number of virtually non-degradable chemical substances. These risks which affect enormous sections of the biosphere for a very long period of time cannot be taken lightly.

16. The contamination of sites, the permanence of the waste and the possible need for management and monitoring even after it has been duly treated and buried, are the price which must be paid by the actual user of atomic power, his successors and future generations.

17. Limited liability companies can disappear without leaving any chargeable assets. The public authorities are therefore likely to become responsible for long-term obligations or debts. The various Member States have embarked upon a massive use of atomic power without having taken any steps in advance to resolve the technological, financial or legal problems of waste. In insurance too, the increase in the risks involved is creating problems for which no proper solution has yet been found.

18. The Member States would be well advised to work together, as they are already doing in the technological field, to find parallel or joint legal and financial solutions. They should also expand and speed up joint or coordinated technical research into nuclear waste treatment and storage. This is a matter of urgency because the volume of waste requiring treatment is growing fast.

19. These are the main subjects dealt with in the major sections of this report on the organization of non-military nuclear safety in Europe. It does not include the problems of political security and, in particular, the risks attaching to the misuse of nuclear materials or politically motivated attacks on nuclear installations which fall within a different sphere.

20. It is time for Parliament to invite the Council and the Commission not only to make more general and more comprehensive use of their powers under the Treaties but also to call on the Member States to coordinate more closely their criteria for the choice of sites, systems, and waste treatment methods. None of the Member States can escape the consequences of decisions by its neighbours. Experience has shown that no one can dispense with the scientific expertise of others when it comes to solving nuclear safety problems. Our Community instruments therefore need to be improved and strengthened to create this 'unified nuclear safety zone'.

21. This explanatory statement shows the various actions which the European Institutions can and should undertake to :

- ensure a uniform and optimum level of protection not only for workers in nuclear installations but also for the population and the environment against the risks of radiation from nuclear activities.
- to coordinate the various safety aspects involved in the production of nuclear energy.
- to strengthen the role of the European organizations among all the institutions and organizations responsible for nuclear safety in Europe.

II - COMMUNITY ACTION IN THE FIELD OF RADIOLOGICAL PROTECTION

General review of the Community's powers and responsibilities in the field of radiological protection

22. The importance of the role assigned by the authors of the Euratom Treaty to the Community in the field of radiological protection is shown by the fact that one of the principal tasks entrusted to the Community is the establishment of 'uniform safety standards to protect the health of workers and of the general public and ensure that they are applied' (Article 2(b)).

23. The basic EURATOM standards therefore clearly constitute the basis and cornerstone of European policy in the matter of radiological protection; according to the definitions given in the EURATOM Treaty, the basic standards are (Article 30):

- (a) maximum permissible doses compatible with adequate safety;
- (b) maximum permissible levels of exposure and contamination;
- (c) the fundamental principles governing the health surveillance of workers.

24. The basic standards define the principles and maximum permitted levels of exposure to radiation for the general public and workers. These are based on the ICRP recommendations. In its publication No. 26 of 1977, the ICRP set out a new system of standards based on three principles.

1. No projects involving exposure to radiation should be implemented unless they produce a positive net benefit;
2. All exposure to radiation should be kept at the lowest level reasonably possible having regard to social and economic factors;
3. Individual equivalent doses should not exceed the limits recommended for any specific case;

In other words, any procedures involving potentially dangerous substances or equipment, such as radiation, require advance justification with a cost-benefit analysis. This goes beyond radiological protection in its narrow sense but requires aspects of radiological protection to be taken into account.

Any procedure justified in social terms needs to be applied in such a way as to optimize protection.

Some of these ideas were taken up in the most recent version of the directive on basic standards adopted by the Council on 15/7/1980. This final version is inadequate particularly because:

1. Article 6 makes no reference to the ICRP 26 criterion of having regard to social and economic aspects and also fails to take account of the important aspect of optimization.
2. Article 5 provides a loophole for the unjustified use of technology involving radiation.

These two principles had generated considerable optimism in the ICRP because they provided more comprehensive protection and a framework for negotiations with workers.

Examples of shortcomings:

- the permitted dose for pregnant women is particularly high and the method for calculating the dose is inadequate;
- the number of workers monitored individually will decline because only workers in the A category (over 1.5 m rem) are to continue to receive medical surveillance. A definition based on categories of work would have been more useful;

- the problem of temporary and casual workers has been ignored; a special policy of information and prevention should have been designed for them and for migrant workers and workers in the transport sector;
- Article 45 establishing controls by the inspection services in respect of the dose limits makes no reference to checks on justifiability or optimization (Article 6 a and b).

Occupational diseases, the coverage of risks attaching to these and radiological protection are not covered by any specific instrument or any article in the directive. This is a major omission.

25. The areas of application of the basic standards adopted by the Council of Ministers goes beyond major nuclear installations; it covers practically all activities - production, processing, handling, use, holding, storage, transport and disposal of natural and artificial radioactive substances involving radiation or contamination risks for workers or the general public and includes the use of isotopes in hospitals and of radiology in food production.

26. In addition to legal powers of monitoring and control to ensure observance of the basic standards by the Member States, the Commission has technical powers enabling it to monitor and limit the development of the radiological risk within the European Community; Parliament takes the view that the Commission and the Member States have hitherto underestimated these powers.

- (a) safety in connection with the disposal of radioactive waste,
- (b) monitoring of the radioactivity in the atmosphere, aquatic environment and the soil.

(a) Supervisory and monitoring powers in the disposal of radioactive waste (Article 37)

27. One particular supranational means of action designed to limit radiological contamination of the environment in the Member States is given to the Commission by Article 37 of the EURATOM Treaty. This article directly forms part of the basic standards of EURATOM and stipulates that: 'Each Member State shall provide the Commission with such general data relating to any plan for the disposal of radioactive waste in whatever form as will make it possible to determine whether the implementation of such a plan is liable to result in the radioactive contamination of the water, soil or air space of another Member State.

The Commission shall deliver the opinion within six months, after consulting the group of experts referred to in Article 31.'

28. Having been drawn up at a time when nuclear energy was still in its early stages, the EURATOM Treaty was imprecise in a number of places. It is not surprising that Article 37 has raised a number of difficulties of interpretation and that a number of establishments have escaped the provisions. Over the years the area of application of Article 37 should have been extended although it has generally been seen by the Member States as a dangerous instrument and threat to their powers. Parliament believes that this Article 37 should be backed up without delay by an up-dated recommendation setting out the minimum requirements for impact assessments and safety reports.

One Commission recommendation of 16 November 1960 on the application of Article 37 which has since become inadequate, specified:¹

- which activities are considered to involve the disposal of radioactive waste;
- that the handling or temporary storage of radioactive waste is not considered as 'disposal';
- what is meant by 'general data' in Article 37;
- that the general data shall be provided at least six months before the date envisaged for implementation of the plan.

29. The list of general data to be provided was revised in 1973 and needs further revision as a matter of urgency given that it is now inadequate. The revision should also include the area of thermal waste. The monitoring of effective adherence to the recommendations made in opinions needs to be organized and measurement techniques harmonized.

¹Procedure now:

The Secretariat draws up for the group of experts a study of the proposed radioactive waste and its maximum foreseeable consequences. This study is forwarded to the experts to provide a basis for discussion at the meeting when the proposal is examined. Representatives of the Member State which submitted the plan are called to this meeting to provide any clarification or further details required.

The experts submit a report to the Commission giving their verdict on the disposal project and its foreseeable consequences and, where necessary, on any ancillary aspects affecting the safety of the general public, particularly as regards transfrontier cooperation. On the basis of this report, the Secretariat draws up a draft opinion which is submitted for the approval of the Commission.

The group of experts is in the process of putting the finishing touches to a method of calculation to provide a standard of assessing the radiological consequences of an accident involving a loss of primary coolant which could occur in a water reactor. This method should allow conclusions to be drawn which do not depend on the different methods used by the Member States.

30. It is wrong that one Member State (Belgium) still grants permission to build without requiring a preliminary safety analysis. The revised form of the recommendation on the application of Article 37 should condemn such practices and seek to change them.

31. The documents and safety reports drawn up under Article 37 are in some cases classified information. In America any citizen or association is allowed to study such reports and if necessary to have a second assessment made. In Europe, the confidentiality rule should no longer apply to these documents.

(b) Powers in relation to the monitoring of environmental radioactivity

32. The Euratom Treaty provides expressly in Article 35 that each Member State shall establish the facilities necessary to measure and monitor the level of radioactivity. The establishment of such a monitoring system and the actual monitoring of the radioactivity in the environment is primarily a matter for the Member States. Since the purpose of these facilities is also to check that the Euratom basic standards are being observed, the Commission has been given the right to verify the operation and efficiency of such facilities (Article 35). National and supranational measures therefore complement one another to ensure the monitoring of radioactivity in the environment. Since 1959 the Commission has been making use of its right to verify the measuring facilities, in order to bring about quickly some degree of harmonization of measurement techniques in the Member States, to establish common units of measurement and thus to improve the comparability of results. There is, however, ample scope for greater harmonization of monitoring procedures.

Within a maximum of six months from the notification of the project, the opinion is sent to the Member State which has submitted the project and to the Member States which may be affected by the proposal.

33. The effectiveness of supranational measures in the field of environmental radioactivity monitoring also depends however on rapid availability of all the measured results from the various Member States; Article 36 of the Euratom Treaty therefore makes it compulsory for the appropriate national authorities to inform the Commission regularly of the level of radioactivity; only if it knows precisely the level of radioactivity in the environment and the food cycle, its causes and its components, will the Commission be in a position to take measures, if necessary, 'to prevent infringement of the basic standards and to ensure compliance with regulations'.

34. It is important to remember that the ALARA standards specify minimum levels of protection rather than an ideal. Parliament therefore cannot accept that action can only be taken once a crisis has been reached. The ICRP 26 document outlined a more flexible basis for action which might usefully be adopted. In parallel, as it were, to these powers of technical and legislative control, considerable importance is attached to standardizing measuring techniques and improving the results to ensure radiological protection. In such areas a supranational organization such as EURATOM could and should be involved in radiometry as a coordinating agency; as regards the monitoring of environmental radioactivity, the problem lies less in the administrative problems of expediting transmission to the Commission by the national bodies responsible of the information obtained than in the relative inaccuracy of the measuring techniques themselves although they are in fact more sensitive than chemical or physical measurements; the inaccuracy of equipment and measurement techniques reduces the value of the information received. Although the Commission is making every effort in cooperation with the responsible national authorities and research laboratories to improve techniques continually, not enough progress has been made and further efforts to harmonize monitoring should be made and include sampling techniques and the standardization of methods.

(c) Research into radiological protection

35. The third vital element, in addition to the work of standardization and technical administration by the Community in the field of radiological protection is the promotion and coordination of research into this subject. The terms of reference for Euratom research into radiological protection and radiobiology is defined in the EURATOM Treaty; the research sectors involved are:

- (1) study of the detection and measurement of harmful radiations;
- (2) study of adequate preventive and protective measures and the appropriate safety standards;
- (3) study of the treatment of radiation effects.

Although little headway has been made in the first two areas, considerable progress has been achieved in relation to treatment.

36. This list indicated the general objectives for EURATOM in the field of research into radiological protection. Its efforts were not to be concentrated on the promotion of fundamental research but, on the contrary, were to make a concrete and scientific contribution to improving the practical aspects of radiological protection. EURATOM research in this area is therefore directly related to the regulatory activity of the Community in the field of radiological protection.

37. The research programmes carried out by the Community in this sector since 1958 have adhered to this principle; they are designed to expand scientific and technical knowledge in order to determine the maximum admissible values for human irradiation and contamination of the environment and to improve the practical organization of radiological protection in the Member States.

38. The research carried out as part of the multiannual programmes in the field of radiological protection and biology has concentrated mainly on the following sectors:

- (1) research into the effects of radiation on living beings, their prevention and treatment;
- (2) improvements to radiological measurement equipment and development of new equipment;
- (3) research into the application of methods of radiological treatment in agriculture and the preservation of food products;
- (4) development of nuclear processes in medical research.

39. In retrospect it can be seen that the EURATOM research programme into radiological protection has been practically untouched by the latent crisis which has been affecting EURATOM research for many years, so that its efficiency, which can only be guaranteed by a degree of continuity, has been assured.

40. However, the progress on safety achieved so far in the nuclear energy sector must be increased in the future, since the energy situation, as modified by the oil crisis of 1973, will not be the only reason for increasing work on radiological protection.

41. The growing use of nuclear energy, the increase in its peaceful applications and consequently in the number of potential sources of radiation or contamination means that the measures for prevention and monitoring in the field of radiological protection will have to be strengthened in future to limit possible risks.

III - REACTOR SAFETY

A - Harmonization of safety techniques and standardization of equipment -----

42. The Council's resolution of 22 July 1975 on the technological problems of nuclear safety is an inadequate basis for work in this field because, although it points out the importance of coordinating national safety requirements and criteria, it does not furnish the means.

Harmonization of safety criteria and standards is essential both for well-tried types of reactor (mainly heavy water reactors) and for advanced types of reactor (mainly sodium-cooled fast breeder reactors). Parliament takes the view that Community action has been inadequate in relation to both types of reactor and also regrets that there has been no comparative study of the risks of the different systems on a common basis.

Steps should be taken

- to draw up recommendations on general safety principles on the basis of fundamental radiological protection principles, in particular by including the concept of risk in safety analyses and applying risk analysis,

However, in addition and above all it is necessary:

- to draw up specific recommendations pursuant to Article 124 of the EURATOM Treaty.

- to apply Article 203 to safety, if necessary by extending the scope for Community measures.

1. Water reactors

For several years the Commission has been carrying out progressive harmonization of the technical safety requirements and criteria for water reactors.

The purpose is to ensure a uniform level of protection for the general public and the workers concerned on both sides of frontiers, contributing at the same time to the elimination of technical barriers and the opening of the intra-Community nuclear market. Furthermore, the links which exist between harmonization at Community level and harmonization within a wider international framework (such as the IAEA and the ISO) help extra-Community trade and the export of both complete nuclear power stations and components.

The principal areas covered by this action are theoretically as follows:¹

- comparison of the practices and criteria used for the protection of nuclear power stations and analysis of accident conditions;
- study and comparison of the practices, rules and standards used in the siting, design and construction of nuclear power stations;
- studies on the training and qualifications of control room operators;
- assessment of risk in safety analyses;
- assessment of the systems of notification of accident and incidents occurring in nuclear power stations.

¹ A working party (WP No. 1) on water reactor safety covering methodology, criteria and standards consisting of representatives of the licensing authorities and/or safety organizations and inspectorates, electricity producers (UNIPED) and manufacturers (UNICE) (plus a representative of CEEP)

- a working party (WP No. 2) on research into water reactor safety with the same membership as the above group plus representatives from the authorities responsible for the administration of research programmes.

43. Only the first stage, consisting in the exchange of information, the listing of methods, criteria and standards used in the different Member States has been completed, and the lists have to be periodically revised to take account of the highly dynamic nature of the technological problems of nuclear safety.

On the other hand the Community has become bogged down far too long at the second stage of identifying the similarities and differences and analysing the reasons behind these without progressing to the active stage of designing instruments.

Although work has begun internally on the third stage of drafting Community recommendations, nothing concrete has yet emerged. Far from producing European standards, this step-by-step procedure has simply delayed the process while over the same period the International Atomic Energy Agency (IAEA) has been producing codes and guides, some of which have immediate practical applications.

In the course of 1981, a document on the principles of safety in nuclear power stations is likely to be completed and could serve as a basis for more specific Community recommendations. Parliament takes the view that both the Commission and the Council should immediately progress beyond the stage of discussion and propose and adopt suitable instruments (Articles 124 and 203).

Although the document on safety principles is an essential pre-requisite, it is important to proceed without delay to the establishment of specific standards and, in particular, to abandon formalistic inventories and comparisons of national standards. Instead of being listed and studied for their inherent interest, the similarities and differences between national standards should serve as approaches to the only really constructive goal: the creation of European standards.

2. Fast reactors

44. Community action relates to the coordination of national research programmes and the harmonization and elaboration of criteria, codes and technical standards relating to this type of reactor and its principal components. In this field, the research aspects dealt with under D(b) and policy aspects are closely linked.

45. The harmonization measures relate more specifically to the drawing up of criteria and preliminary technical recommendations, a comparison of the design codes applied to certain accident hypotheses, the possibilities offered by recent developments in microelectronics in relation to the control and protection of fast reactors, the exchange of information and know-how and the coordination, with Community financial participation, of research conducted by the Member States, the harmonization of national codes and standards for the production (design, manufacture and quality control) of the structural components of fast reactors in order to ensure a common level of structural integrity and to eliminate the technical obstacles to the expansion of a nuclear market.

46. The principal results obtained so far include the following: ¹

- drafting of preliminary technical recommendations and criteria for accidents arising in the core or the primary circuit of the reactor;
- comparative calculations with design codes developed by different Member States for hypothetical loss of coolant flow accidents and transient power surges in an irradiated reactor core;
- comparison and validation of the design codes for assessment of the effects of severe accidents on the primary containment systems and certain components;

¹ These activities were conducted by two working parties of the Fast Reactor Coordinating Committee:

1. Working party on fast reactor safety

Set up for the purpose of exchanging information on research and development programmes and progress, proposing action to be undertaken to resolve problems and preparing common safety criteria.

2. Working party on codes and standards

Of which the principal purpose is to draw up a list of the existing codes and standards which may be applied to fast reactors in order to identify areas where further information is desirable.

B. Siting of nuclear power stations

47. The Commission has to standardize the practices and safety criteria applied in the selection and development of power station sites.

48. The choice of sites must be subject to the approval of the elected bodies and the public, ensuring in particular the publication of those parts of the safety reports which do not present any problems of patent rights. In the Community, in particular, there arises the very difficult problem of sites with a high population density or those situated in industrial areas because of the risks associated with large-scale evacuation in the event of even a minor accident, or effects on the safety of nuclear installations caused by conventional installations (chemical works, petroleum plants, gas transport; risks of fire or explosion). This problem, which is connected with certain proposals for sites near frontiers, calls for particular attention at Community level.

49. The measures taken and the proposals regarding the choice of sites do not relate specifically to nuclear power stations but fall within the wider context of the siting of power stations in general.

50. Pursuant to the Council resolution on energy and the environment of 3 March 1975, the Commission has undertaken to promote the exchange of information on the planning and siting of new power stations as part of a programme of action on thermal discharges. With the aid of a group of national experts a list has been drawn up of the various practices used in the selection of sites in the Community.

51. The consultation provided for in Articles 41 and 42 of the EAEC Treaty can only be effective and play a part in the choice of sites if it is included in a long-term planning of nuclear development. The three-month deadline specified serves little purpose and the Commission should take steps to amend this deadline and to progress towards an effective policy on programmes as provided for in Chapter 4 of the EAEC Treaty.

52. Following a report by the European Parliament 'on the conditions for Community policy on the siting of nuclear power stations taking account of their acceptability for the population' (Doc. 392/75), the Commission submitted two proposals to the Council:

- a proposal for consultation at Community level on the siting of power stations. Such consultation should lead to the development of common criteria for the selection of sites, particularly for power stations in border areas and power stations sited alongside international waters;
- a proposal for the introduction of a Community consultation procedure for power stations likely to affect the territory of other Member States (frontier power stations).

53. In 1978 the Council adopted the proposal for consultation in a form which limits such action to the exchange of information and know-how on the choice of sites.

54. A group of experts from the member countries was set up following the Council decision and their work has reached a point at which a general report is being completed.

55. In 1978 the Commission re-submitted to the Council its proposal for a consultation procedure for frontier power stations. This proposal is currently still being discussed by the Council.

C. Information, emergency planning and emergency measures in the event of an unusual incident or accident

56. Many types of accident of different degrees of seriousness may affect a nuclear site. The range extends from minor faults in installations or minor incidents involving exposure to radioactivity or to radiation, to accidents causing extensive damage in the installation and the release of radioactivity from the site, including serious faults causing substantial damage in the installation or serious exposure of personnel.

In the event of unusual incidents (which in most cases do not require emergency plans to be implemented) it is essential for there to be an extremely rapid exchange of information.

The creation of a rapid and compulsory system for transmitting information on unusual incidents with possible repercussions on nuclear installations and associated operations will enable the scale and the

radiological, health and technological consequences of incidents to be assessed and provide information which may reduce the risk of such incidents recurring.

Work is currently in progress in the Commission on a draft Council regulation setting out a procedure for exchanging information on unusual incidents with possible repercussions on nuclear installations and their operations and Parliament hopes that this work will lead to concrete results in the near future.

Responsibility for this information should fall within the terms of reference of the European information and control service.

57. The national emergency plans must be harmonized so as to be able to cope with all these situations. They must be designed to:

- limit the damage in the installation
- ensure protection of site personnel
- ensure the protection of the public around the site.

58. The basic functions of emergency planning are:

1. Providing assistance to the management of the installation by highly-qualified specialists.
2. Shutting down the installation in complete safety, continuous heat removal and continued operation of the rest of the site in complete safety.
3. Limiting damage, rescue operations, fire-fighting.
4. Providing radiological protection on the site.
5. Assessing the probable development of events and predicting exposure doses outside the site.
6. Initiating and applying longer-term protective measures.
7. Adapting and completing the protective measures.
8. Production of data for the retrospective assessment of the health consequences.
9. Production of data for scientific and technical studies.

59. (a) Need for multiple control centres - communication equipment

Control centres must be provided to carry out the following activities:

1. Measures at the installation
2. Emergency measures at the site
3. Radiological protection outside the site, including measurement and control of the initial measures.

The essential feature for this control system to be effective is a well-designed communications system - apart from the telephone and radio. The Community might usefully consider providing financial aid for these multiple control centres.

60. (b) Protective measures

The emergency plan must include a procedure for deciding whether measures need to be taken to protect the public. There must be quantitative criteria concerning the implementation and date of application of the measures. ('Emergency reference levels' in Britain.)

61. (c) Possible action at European level

In the case of a very serious nuclear accident, the emergency plan must provide arrangements for calling in the help of other nuclear installations and other organizations.

If the state of emergency persists for some time, it may become necessary to send out appeals for assistance over a wider area.

Within the Community there are reactors sufficiently near to national frontiers to require the conclusion of agreements on transfrontier emergency plans.

D. Community research into reactor safety

(a) Direct research

62. The Commission is devoting a considerable proportion of its research effort to the problem of reactor safety; about 30% of the work of the Joint Research Centre is concerned with this subject as part of the 1980-1983 direct action multiannual programme, to which must be added an indirect action programme over 5 years, (1979-1983) at a total cost of the order of 6 million ECU. This represents some 20% of the total funds spent on reactor safety research in the Community i.e. including national programmes.
63. Nuclear safety in general is a particularly suitable subject for Community research:
- the problems are generally the same in all the countries of the Community and common solutions enhanced by the diversity of approach must be found, especially as such common solutions would help in the harmonization of safety measures taken on the basis of the research results;
 - research in this field is often very expensive and requires huge experimental installations which there is no point in duplicating. The Community approach should allow coordination of effort and pooling of resources, leading to concentration of the most costly work around a few central installations, particularly the Joint Research Centre;
 - since the Commission is not bound to any specific development in regard to reactors, it can exercise great independence of judgment in its research into safety and act as a public service in this sector.

64. Research into reactor safety aims essentially at satisfying two requirements:

- to provide the designers, manufacturers and operators of reactors with the information they need to implement measures to ensure the prevention of accidents and the operational reliability of the installations in particular by incorporating safety devices in the design of the system and developing appropriate operating procedures;
- to provide the competent authorities, in particular those responsible for safety licensing, with the tools to make a detailed assessment of the safety level of the installations submitted for their examination. While the results of this type of research are usually not immediately comprehensible to the general public, they nevertheless provide information for experts and politicians who in turn can educate public opinion.

65. While it is possible to make this distinction in the aims of the research, the same clear distinction is scarcely possible in regard to the research to be undertaken. Research into accident prevention devices is indissociable from the studies and simulations of these accidents; safety devices designed to prevent accidents cannot be correctly designed unless the accidents which they are designed to prevent are fully understood and, conversely, the studies and accident simulations must take full account of the safety devices and assess their reliability.

66. Community research is concerned both with light water reactors, which are the type most used in the Community's power stations, and fast breeder reactors where the emphasis is on liquid-metal-cooled reactors. No specific studies are devoted to either gas-cooled reactors or heavy water reactors.

67. The programmes include both theoretical work (analysis of mathematical models, development of design codes; statistical studies) and experimental studies (from the simple laboratory rig to the reactor used specially for a single simulation experiment).

68. In general the research can be divided into three categories:

- theoretical and experimental study of events initiating a potential accident and the consequences of such an accident:

69. This category includes the major projects associated with the loss of coolant accident in light-water reactors such as Super SARA and LOBI, the study of fuel-coolant interactions, and, for fast breeder reactors, the work on heat removal following a core meltdown (PAHR project) and the studies on the release and possible dispersion of fission products following an accident;

- study of the preventive measures and possibility of early detection of possible faults or fractures:

This includes work on examination of the integrity of steel components of large cross section (PISC programme) and studies on the mechanics of fracture of structural materials.

- general analysis of safety concepts, in particular a summary and comparison of methods of risk assessment. The establishment of a European Reliability Data Store (ERDS) forms part of this work.

70. While in the past the emphasis at Community level has been above all on accident studies - which continue to occupy an important place justified by the complexity of the phenomena examined - since the Three Mile Island accident, in particular, increased attention has been given to the two other categories of research, the methodological problems of analysing the safety characteristics of reactors and assessment of the reliability of nuclear components. Without claiming that the programme is absolutely complete or cannot be amended to adjust the relative importance given to different subjects, it can nevertheless be claimed that it adequately covers the most important aspects of the problems raised by reactor safety. Perhaps governments and the Commission might pay greater attention to the reliability of this research since only progress in this field will allow nuclear options to be selected without resistance from the public, whether this is justified or otherwise.

(b) Indirect research

71. The programmes to coordinate research by the Member States do exist but are disappointing and still display a lack of complementarity. The Community objective is to improve the systematic exchange of information and cooperation between specialist institutes thus avoiding unnecessary duplication of effort and to encourage where appropriate the development of joint programmes. But a lack of resources and political will have largely thwarted attainment of the original goal.

72. Apart from the periodic updating and publication of an index showing all the research projects in this field in progress in the Community, there is currently a lively exchange of views and information on topical issues such as:

- the production of hydrogen following a loss of primary coolant accident and the possible risk of explosion in the containment vessel;
- interaction between man and machine;
- alternative containment design;
- steel components in water reactor power stations.

73. One major result of this concerted action was the launching in March 1979 of an indirect Community research programme on water reactor safety the purpose of which is to contribute to the efforts in progress in the Member States and the Joint Research Centre by concentrating attention on certain complementary aspects; to bring together a major part of the work done in these fields; to prepare for harmonization of criteria and measures applicable when granting approval for power stations.

74. The areas covered by this programme are:

- thermohydraulics of rewetting and reflooding the core of the power station following a loss of primary coolant accident;
- protection of reactors against explosions of hydrocarbons released in the proximity (for example following a transport accident);
- release and atmospheric dispersion of active fission products following a reactor accident.

It is too early to assess the results of this programme yet.

IV - DECOMMISSIONING OF NUCLEAR POWER STATIONS

75. At the moment Community action in the field of decommissioning nuclear power stations is limited to the research aspect of the second environmental programme and is being carried out in the form of a 1979-1989 research and development programme.

76. The purpose of this programme is to:

- (a) assess the foreseeable quantities of radioactive waste of various categories arising from the decommissioning of nuclear installations;
- (b) compare the specialist techniques in existence or being developed in the field of decommissioning, with a view to assessing them both in terms of the protection of man and the environment and their economy and on the basis of this assessment, decide on the action to be taken;
- (c) compare the available studies and experience of decommissioning operations and the various foreseeable methods of disposal of the radioactive waste resulting from these operations;
- (d) derive certain guiding principles for the design and operation of nuclear installations with a view to simplifying their subsequent decommissioning;
- (e) derive guiding principles for the decommissioning of nuclear installations which might constitute the initial elements of a Community policy in this field.

77. The areas covered are:

- Long-term integrity of buildings and systems;
- Decontamination with a view to decommissioning;
- Dismantling techniques;
- Treatment of specific waste: steel, concrete and graphite;
- Large containers for the transport of radioactive waste from the dismantling of nuclear power stations;
- Estimation of the quantities of radioactive waste arising from the decommissioning of nuclear power stations in the Community;
- Influence of design characteristics of nuclear power stations on decommissioning;

- Derivation of guiding principles for the design and operation of nuclear power stations with a view to simplifying their subsequent decommissioning and for the decommissioning of nuclear power stations.

78. The current programme is to be considered as the first stage in a longer term operation needed to achieve the essential objective referred to above.

79. The results of the current programme will, in particular, enable a better assessment to be made of the radioactivity inventories of the power stations and possible decommissioning techniques. Certain measures under this programme, such as the estimation of the quantities of radioactive waste produced and the derivation of guiding principles, should acquire greater importance under a second programme.

80. In addition to the laboratory work and theoretical studies which constitute the major part of the current programme, large-scale operations should be carried out when a station is decommissioned, including the testing of new techniques for the extension of proven techniques to more difficult conditions, such as the dimensions and radiation level of the components. The Advisory Committee on Programme Management responsible for the programme has already unanimously expressed an interest in principle in the extension of Community action in this direction. It is however still uncertain as to when such operations, which are subject to various constraints (availability of a store for the radioactive waste produced, licensing, etc.), can be carried out.

81. Since this is a completely new programme which began relatively recently (the first research contracts were concluded in the second half of 1980), it is too soon to assess the results.

82. All the seven research projects have now been started. The detailed definition of the work, to which groups of specialists have contributed as well as the Advisory Committee, has increased the understanding of the problems raised by the decommissioning of nuclear power stations and made possible an exchange of views between the experts of the various Member States. The value of the programme is illustrated by the fact that it was only possible to award contracts for one third of the research proposals submitted to the Commission with the financial resources available.

The delegation of an expert to the Three Mile Island station in the United States has provided valuable information on the special decommissioning problems raised by a heavily contaminated station following an accident.

V - SAFETY OF THE FUEL CYCLE

83. Stricly speaking the safety of the fuel cycle does not fall within the terms of reference of this report. But given its fundamental importance and the concern among a large section of public opinion on the permanent nature of the waste problem, we considered that an analysis was necessary. This shows that the Community has failed to take concrete action to deal with these crucial problems particularly that of low-level waste which is produced in large amounts and has a very long life, in connection with the plutonium cycle and its safety. We regret that the R & D programme presented in May 1979 to the Commission has ceased to exist.

It is also regrettable that the safety aspect of reprocessing was not studied more thoroughly before investments were made in this sphere. A rational approach would have been less expensive.

A - Management and storage of radioactive waste

84. Since about the middle of the 70s the Community has been undertaking considerable research into the management and storage of radioactive waste. The main purpose of this work is to find effective solutions to ensure protection of man and the environment against the potential risks associated with radioactive waste.

85. Community research in this field began in 1973 as part of two programmes:

- the direct action of the Joint Research Centre: 'Savety of nuclear materials' (1980-1983): and
- the indirect action programme: 'Management and treatment of radioactive waste' (1980-1984).

86. The current JRC research activities are basically directed towards the long-term safety aspects of radioactive waste management. The two main objectives of the programme are as follows:

Assessment of the long-term safety of geological disposal

This includes developing and testing models to evaluate the safety of geological disposal and related experimental studies on the long-term stability of treated waste and the confinement of radionuclides in geological formations.

Optimization of alpha waste management

This includes optimization studies on alpha waste management taking into account safety and cost factors and experimental studies on the separation of plutonium from effluents and measurement of plutonium content by nondestructive techniques.

87. The research fields covered by the first five-year programme (1975-1979) of the Community carried out under contracts with laboratories, research centres and organizations in the Member States were as follows:

- processing and treatment of waste to ensure safety in handling and storage,
- interim and final storage,
- studies in relation to risks, regulations, responsibilities and costs.

88. The second five-year research programme (1980-1984) currently in progress represents the logical extension of the first programme, but differs from it in the following ways:

- greater attention has been paid to low-and medium-activity waste management to take account of the growing output of this type of waste,
- the study of waste disposal in deep-lying continental formations has been extended to the seabed,
- greater attention has been given to management strategy and safety studies.

89. During the implementation of the programme, research groups have been formed to discuss the various technological developments and select the most promising and the most reliable. Bilateral cooperation between member countries has also been fostered.

90. The Community programme today represents the only coordinated international effort on this scale, representing about 25% of the R & D projects of the Member States and offering third countries useful prospects for cooperation.

91. In such a field, continuity of the R & D effort over a sufficiently long period in order to arrive at reasonable, if not optimum, solutions and putting this effort into perspective within the wider framework of safety, industrial development and acceptance of nuclear energy are more important than the size of the financial effort alone.

92. The research programme therefore forms part of a more general 12-year plan of action (1980-1992) on the management and storage of radioactive waste approved by the Council on 18 February 1980 (OJ No. C 51 of 29 February 1980).

93. This plan of action comprises five points:

- (1) Continuous comparison of the techniques, practices and installations already in existence or planned by the Member States, with the nuclear programme requirements and the timetable; this should make it possible to ensure that the necessary solutions are available in good time;
- (2) Community consultation in regard to the permanent storage of waste, i.e. the enlargement to the national programmes of Community action hitherto limited to the Commission's R & D programme; this should make it possible to optimize the arrangements for permanent storage;
- (3) Consultation on the practices relating to the management of waste, the quantity and properties of treated waste and the conditions governing the disposal of waste;
- (4) Continuity of Community research and development work during the plan; this should enable research to be carried out and provide the solutions expected for the next decade, in particular in regard to permanent storage;
- (5) Regular information of the public.

The implementation of the plan began in November 1980 with the first meeting of the committee of experts responsible; a report on point (1) is in preparation.

94. Brief mention may now be made of the main technical and scientific results obtained so far under the research programmes:

- commissioning (April 1979) of an industrial pilot plant using a new process for coating the waste from a nuclear power station (SENA) in thermosetting resins providing good resistance to mechanical, chemical, bacteriological effects and fire;
- examination in three research centres (B, D, F) of various processes for the treatment of cladding waste and determination of the radioactivity associated with such waste (UK, Commission), with a view to a later comparison and possibly selection;
- active experiments in the laboratory on a process for treating various waste containing alpha emitters (D);
- examination of three different processes for burning combustible waste contaminated by plutonium and other alpha emitters (B, F, D) and examination of the possibilities for recovery of the plutonium contained in the waste. An industrial scale incinerator for slightly contaminated waste has been started up in active operation. This type of treatment produces a reduction in volume of 95% together with immobilization of the contaminated centres in stable slag. The two other processes, combustion in molten salt and acid digestion will allow almost all the plutonium contained in the waste to be recovered;
- cooperation between the United Kingdom Atomic Energy Authority (Harwell, UK), the Hahn-Meitner Institute (D) and the Commissariat à l'Energie Atomique (F) to evaluate and compare under identical conditions the properties of highly active waste vitrified according to the processes being developed in these three countries; the first results show that an alpha radiation dose equivalent to that received by

the vitrified products in 100,000 years' storage increases their leaching rate by only a factor of 2. Deterioration in the glass due to devitrification at high temperature was not found below 700°C. With the exception of one type of glass, all the samples kept at 800°C for one hundred days maintained their resistance to devitrification;

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- the preliminary results on methods of storage and/or disposal of radioactive krypton after separation of gaseous waste (B, D, NL, UK). These methods may be of use when the nuclear industry has reached a stage at which the present procedure for discharge via a stack is called into question;
 - experiments in two detritiation pilot units on two methods of separating tritium from liquid waste from the fuel reprocessing plant using different catalysts (D, B);
 - a study of the possibility of using low-melting-point glass for fixing iodine (F);
 - the acquisition of considerable data on the characteristics of rocks and typical geological strata as part of a coordinated programme (study of salt formations: D, NL; clay formations: B, I; granite formations: F, UK); results have been obtained both in the laboratory and on site, despite the delays due to external causes in the latter case;
 - the technological reliability of waste disposal in appropriate geological formations has been confirmed and design studies of underground storage installations in clay and granite have been carried out by specialist firms with the support of the appropriate national laboratories;
 - the mechanisms of migration of important radioelements in the geosphere have been analysed and a series of artificial barriers to prevent such migration have been examined;
 - the most important factors which might compromise the safety of such storage installations have been identified for each typical geological formation;
 - the legal, financial and administrative measures connected with the management of radioactive waste and in force or projected in the Member States have been listed and outstanding questions identified.

In an earlier JRC programme, considerable efforts were devoted to evaluating the waste management strategy based on chemical separation and the transmutation of actinides.

- Methods have been developed to evaluate the long-term risks of radioactive waste storage in geological formations. The model is based on a probabilistic analysis of geological disturbances in the storage sites, such as faults, magmatic activity, glacial phenomena, etc. and on a determinist analysis of the consequences of possible disturbances, taking into account the properties of the treated waste, the geological and hydrological features of the sites, etc. The validity of these methods was shown by their application to the clay formation at Boom (Belgium), a possible future storage site. The results show that the probability of any weakening in the geological barrier in the clay formation is sufficiently small to ensure a large safety margin.
- Studies on other strategies of the fuel cycle have also shown that the long-term risks associated with the storage of irradiated, non-reprocessed fuels are one order of magnitude higher than for the recycling of uranium and plutonium.

On the other hand if waste should be released after several thousands of years, the dosages involved would be extremely low, even under the least favourable circumstances.

- The Commission has been chosen by the OECD Nuclear Energy Agency as the executive organization for studies on the chemical separation and transmutation of actinides. Community research in this field has been completed and shows that the separation and transmutation of actinides would be technologically feasible if a major research and development effort were undertaken. But, this waste management strategy does not reduce the long-term risks sufficiently to justify new research in this field.
- The development of non-destructive methods and instruments for measuring the level of plutonium in radioactive wastes has contributed to the aims of ensuring the safety of fissile materials. A Compendium of the techniques has been published and experimental work is going on in nuclear installations in the Community.

95. As regards collaboration with third countries and organizations, an agreement on the disposal of waste in a granite formation was signed with Canada on 2 November 1980. Another collaboration agreement is being negotiated with the United States.

96. Permanent links for collaboration have also been established with the OECD Nuclear Energy Agency and the International Atomic Energy Agency in Vienna.

B Plutonium recycling and reprocessing of irradiated fuels

97. During the period 1975 to 1979 the Commission contracted out a research programme on plutonium recycling in light water reactors, the main purpose of which was to help to ensure that the development of the plutonium industry was compatible with the requirements of safety and protection of the environment.

98. The principal subjects covered by this programme were as follows:

- study of the general problems associated with the use of plutonium,
- research to fill certain gaps in the scientific and technical information relating to plutonium recycling in light water reactors.

99. The most important results obtained include the following:

- the rate of plutonium recycling which a light water station can accept without changes to the control systems depends on the design of the station and the degree of optimization in the refuelling. At least 30% of the fuel for each station considered can comprise plutonium assemblies (the rest being uranium) without change to the control devices;
- plutonium recycling in light water stations does not cause any appreciable changes compared with the uranium cycle as regards the effect on the environment;
- the plutonium resulting from the first recycling (second generation plutonium) can be transported in existing containers, while respecting the radiological exposure limits for workers laid down by the basic Euratom standards on radiological protection.

100. A second R & D programme (1980-1984) on the 'plutonium cycle and its safety' was proposed by the Commission to the Council in March 1979 but was rejected.

101. The Council adopted instead on 18 February 1980 a resolution on the reprocessing of irradiated nuclear fuels and decided on the same date to set up an ad hoc advisory committee on this subject.

102. The functions of this committee are to:

- (1) analyse the reprocessing situation in the Community, both as regards changing needs and the available capacity, and to carry out a complete survey; this analysis will take due account of the work already done;
- (2) gather information on the interim storage capacity needed pending medium-term reprocessing of fuel elements and to review the problems arising;
- (3) consider the advisability and the means of promoting the development of the necessary industrial capacity in the Community and to facilitate coordination of initiatives between the partners concerned, having regard to the legal and industrial arrangements already set up;
- (4) consider, as regards industrial reprocessing capacity, the advisability and possibility of using all the pertinent provisions of the Euratom Treaty, in particular with a view to facilitating convergence of the interests of promoters and users.

103. A report by the committee on these problems will be submitted to the Commission in 1981. The latter will forward it to the Council with its proposals for action, if any.

VI - NATIONAL STRUCTURES FOR THE CONTROL OF NUCLEAR ACTIVITIES

104. The Community institutions should not be involved in licensing the construction and operation of power stations nor in monitoring and control during operation, which should remain the responsibility of Member States.

However, the national institutions responsible in the Member States for safety and licensing controls etc. must be completely independent of the bodies responsible for electricity production and the research centres involved in promoting nuclear energy.

The IAEA Code of Good Practice No. 50 C-G recommends the setting up of a safety regulatory body closely linked to government authorities and responsible for the acceptance, safety analysis and monitoring the construction and operation of installations.

In a report to Parliament, the Commission should assess the various institutions in the different Member States and establish to what extent they comply with the most widespread practices in the Community and the IAEA No. 50 C-G recommendations.

Safety measures and provisions need to be monitored. The problem therefore arises of the resources available to the Community and the public authorities to monitor safety in the nuclear industry.

In this report, the Commission should consider the advisability of establishing Community standards.

All the Member States should set up public institutions responsible for analysing preliminary and final safety reports before issuing building and operation licenses, and for monitoring construction and operation. These institutions, answerable to the Ministers responsible, would be assisted by advisory councils in which, in addition to scientists, the professional and trade union organizations affected by the implementation of the safety measures would be represented.

For each nuclear installation, a periodic report on the application of the safety measures and any difficulties encountered should be drawn up and submitted to the responsible authorities and to the councils assisting the nuclear plant safety institutions.

VII - INSURANCE

105. The Commission considers that all the Member States of the European Community who have not yet done so must ratify the Paris Convention of 30 July 1960 on civil liability in the field of nuclear energy, and the additional Brussels Convention of 31 January 1963, and apply them uniformly. To this end, the Commission has examined in detail the application of the conventions with government experts at two meetings, on 4 February 1975 and 25 September 1975, when the Commission recommendations 65/42/EURATOM of 28 November 1965 and 66/22/EURATOM of 6 July 1966 were discussed.

Changes to the specified amounts require revision of the above-mentioned Conventions. The Commission should therefore play a more active role in the OECD working parties responsible for this revision.

VIII - INTERNAL WORKING OF THE COMMISSION - STAFF AND FINANCIAL NEEDS

106. The importance of safety policy which has been illustrated above necessarily has implications in terms of the Commission resources needed. The Commission cannot perform its new harmonizing role properly without resources and in particular staff resources.

It is not for Parliament to make proposals on the internal organization of the Commission. This would infringe the basic institutional rules but at this stage it can suggest a few general guidelines :

1. Genuine coordination of services rather than dispersion;
2. Parliament's refusal to accept a cutback in the services responsible for radiological protection because these involve obligations incumbent on the Commission under the Treaty;
3. The nuclear safety services should be expanded to enable them to operate effectively.

IX - CONCLUSIONS

107. The rapporteur considers that several proposals contained in this explanatory statement could be examined by the Commission.

(1) Directive on basic standards

The directive of 15.7.1980 should be revised and extended to include the objectives set out in ICRP publication 26. (see § II). Studies should be instituted to design special instruments, in particular for casual workers, occupational illnesses, the dosage for pregnant women, population dosage monitoring and sections a and b of Article 6 (optimization). In section III, Article 31 (Recording of results) there should be provision for establishing a complete operational data bank to permit the extremely long-term epidemiological studies required for low doses of radiation. This data bank should be one of the main elements supplying information to the overall information and control service, with data on physical safety as the other main element. The Commission must also ensure that this directive is updated whenever this is made necessary by scientific discoveries (e.g. radiation in prefabricated construction materials).

Consultation with the organizations representing the workers should be generally extended, included in the texts and incorporated into the ICRP 26 objectives.

(2) Disposal of radioactive waste

108. In the context of Article 37 of the EURATOM Treaty, the Commission should :

- seek to amend as soon as possible the recommendation of 16 November 1960 along the lines proposed by the expert group and in particular
 - . revise the form and content of the documents to be supplied under Article 37,
 - . extend obligatory Community consultation on the disposal of radioactive waste to all nuclear installations in the Member States incorporating a general approach to the disposal of waste from small installations,
 - . ensure that for larger installations this procedure takes effect before building permission is given at a date well before implementation of the project, particularly when the installations are located near frontiers,
- monitor the implementation of the recommendations in the opinions which it submits and to report on this to the Member States concerned,
- encourage the formulation of standardized methods of calculating the radiological consequences of waste disposal both for normal and accidental disposal and accord these methods the status of European standards or recommendations based on clearly-defined 'reference accidents',
- pursue unrelentingly its efforts to obtain the documents required within the prescribed deadline (certain countries only submit their documents once work on the installation is well under way) and report to Parliament on any failure to observe deadlines,
- instruct the European information and control service (see paragraph 8) to supply the expert group with all the information they need for their work, including transfrontier emergency plans,
- ensure that the above proposals on the information to be supplied are not circumvented by claims that the information is classified.
- introduce this procedure before building permission is given by the Member State and not simply before implementation of the project. It is wrong that certain states, such as Belgium, should continue to give building permission without reference to the safety analysis,

- extend consultation to include aspects not at present covered by Article 37 such as thermal discharge. In this connection the implementation of the conclusions of the report by Mrs Von ALEMANN on the establishment of a Community consultation procedure for power stations likely to affect the territory of another Member State is a matter of urgency.

3. European control over the application of basic standards must be increased and harmonization of the measurement and control procedures and of installations must be updated to take account of developments in the nuclear network.

4. As regards the safety of water reactors, we must now await specific recommendations under Article 124 of the EURATOM Treaty. Parliament takes the view that less time should be spent elaborating general principles now that the document on safety principles has been adopted. On such general matters, it will often be enough to refer to the IAEA codes of good practice in the formulation of which the Member States were directly or indirectly involved. We now need specific European standards which deal directly with details of design, construction and operation of power stations with water reactors and their components.

These specific Community recommendations should soon cover the following areas, where the work of the working parties is at an advanced stage:

- Protection of nuclear power stations against failure in the electricity system
- Protection of nuclear power stations
 - against aircraft crashes
 - against the effects of explosions of gas clouds outside
 - against floods
- Study of the mechanical and thermohydraulic effects of a loss of coolant accident (LOCA) on the primary circuit and the containment vessel, and the radiological effects of a LOCA
- Fuel handling accidents
- Pressure vessel of the reactor primary circuit
- Containment vessel and protective systems
- Quality control

5. Although the question of siting was extensively covered in the debate on the report by Mrs von ALEMANN, it is useful to recall that Parliament wishes to see early progress in this respect both as regards harmonized siting criteria and the establishment of a consultation and arbitration procedure. At the minimum, a 'good neighbour code' would undoubtedly help to achieve such progress if it sought to govern by means of minimal standards, which the Commission would also have to respect, relations on these questions which at present are on a bilateral, and often unequal basis.

6. Direct and indirect research must be actively promoted. Particular mention must be made of the Super-SARA project to which Parliament attaches the greatest importance. The budgetary procedure must not be parsimonious in this respect. The Super-SARA project must have constant support and a consistent budgetary contribution at all stages. Interested third countries who are working on nuclear technology could be associated with it for this purpose.

7. Your rapporteur considers that the Commission should ask Member States to compare their respective emergency plans in order to ensure that each state has a clear view of all the possibilities, the resources required, and can correctly assess its needs in this respect. The Commission must provide technical assistance at the highest level and allow progressive upward standardization of the 'emergency reference levels'.

This control network and the necessary infrastructures must also be given financial priority in each state. The Commission will assist this new action by giving priority to these infrastructures through the Regional Fund under its present criteria, and after it is reformed.

8. A European information and control service (see diagram attached) should be set up with the following functions:

- advising Member States as to the conclusion of transfrontier emergency plans,
- listing the capabilities of the various Member States in terms of facilities and specialist medical services for transfrontier intervention,
- setting up a central data bank on unusual incidents likely to affect nuclear installations and associated operations with an obligation to supply information (draft regulation before the Commission);

- preparing and coordinating European assistance in the event of a very serious accident, and in particular specialist medical aid;
- monitoring the possible application of the second paragraph of Article 38 of the EURATOM Treaty;
- coordinating the retrospective assessment of the health consequences and the scientific and technical studies to be carried out following major incidents or accidents.

This European information and control service would carry out these duties in addition to those already referred to in points 1 and 2 of the Conclusions. It would thus constitute a genuine operational information and action service at European level.

9. The time is approaching when major power plant installations will have to be decommissioned. We must therefore proceed beyond the research stage and develop technical criteria as a basis for European policy in this area. But Parliament takes the view that measures in this field should not be confined to testing and applying decommissioning techniques. The cost of these operations should also be taken into account and the Commission might usefully exploit its powers by starting to consider in depth taking over these costs and setting up a special fund for the decommissioning of power stations.

10. As regards the control authorities, as this is a sphere of activity in which the concept of 'public authority' is of predominant importance, every nuclear installation and all activities associated with the fuel cycle must be subject to direct surveillance by the public authority, in particular as regards safety. The Commission should draw up a report on the application of the IAEA 50 C-G code and in the light of this, consider whether there is a need for separate Community legislation.

In addition, having regard to long-term safety requirements, it is essential that at the present stage of industrial development, the re-processing of irradiated fuel and the storage of waste are placed under direct public responsibility for as long as these operations remain inseparable.

11. As regards insurance, the rapporteur considers that the Commission should be advised to emphasize its active role by applying harmonization of legislation among the Ten by means of a Community instrument. The OECD should not be allowed to monopolize this issue.

12. To summarize, Parliament's resolution is based on the concept of a unified safety zone which implies :

(a) regulatory measures

A full range of Community standards for the protection of workers, the public and the environment against nuclear radiation. This would bring together comprehensive directives on basic standards (direct exposure or exposure from waste) and Community instruments relating to the prevention of accidents and the accidental release of radioactive substances or the dismantling of contaminated installations and the treatment and disposal of waste.

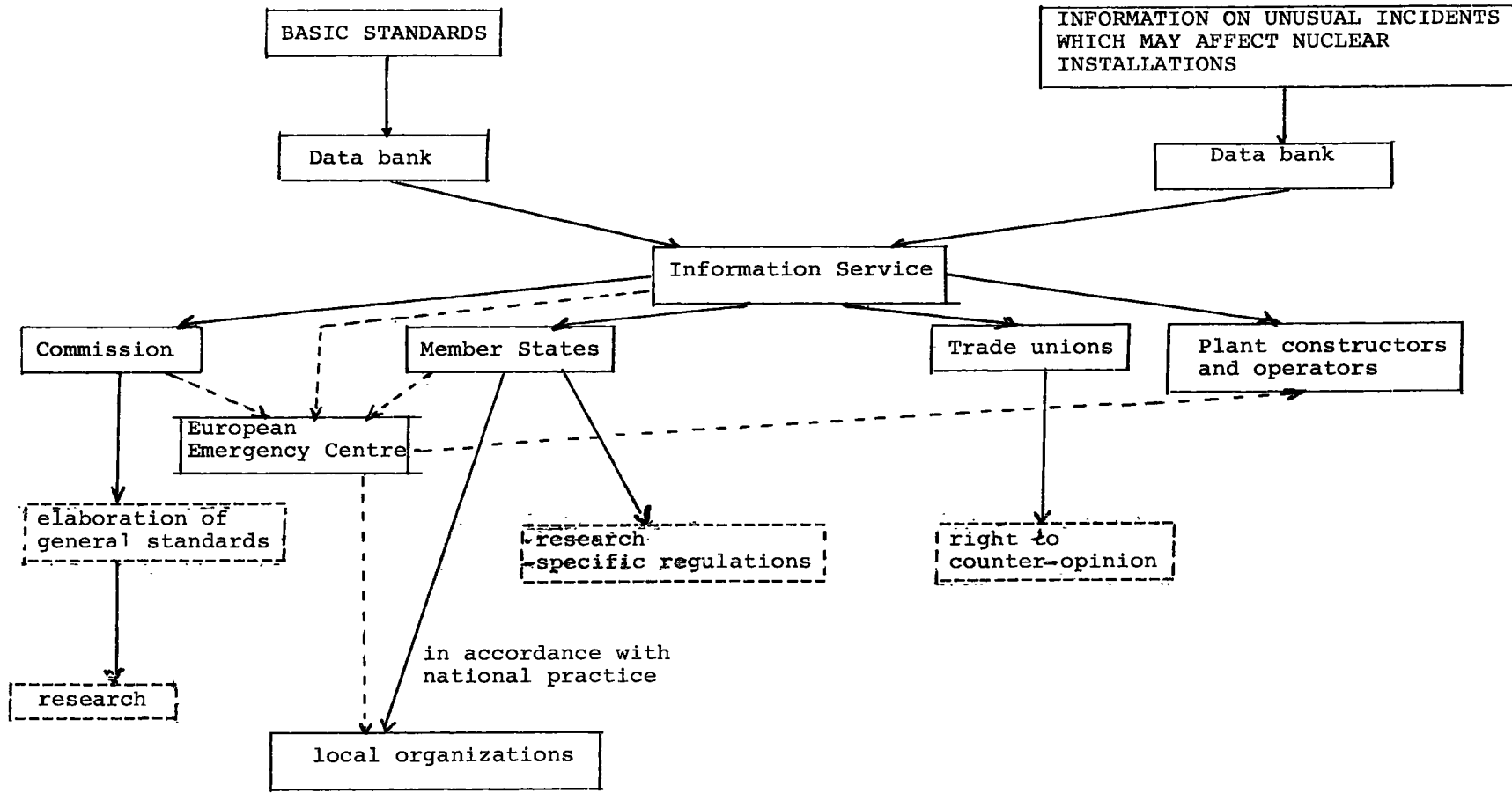
Reactor safety and safety in other industrial mass processing installations (reprocessing, treatment of waste, fuel production) will be the major elements involved.

(b) coordination of administrative measures

The requirements on Member States in their threefold task of authorization, regulation and monitoring should also be specified in European directives to ensure that standards are effective and verifiable :

- national licensing procedures should be all-embracing and cover building permission, permission to operate and waste disposal; advance consultation with neighbouring countries and the Commission needs to be organized;
- the national licensing, regulatory, monitoring and assistance services should be enabled to carry out a variety of tasks to be defined;
- the authorized bodies responsible for ongoing surveillance must be public bodies or endowed with a similar status; they must be independent of builders and operators; regional and local authorities and the trade unions should be brought together in a Council empowered to investigate and provide information on the actual risks involved and the precautions taken;

- there should be an agreement on measures to combat secrecy (a written record should be kept of every incident and these should be investigated by the body responsible for surveillance); the same applies to emergency reference levels above which the national safety organization and the Council of the surveillance body have to be alerted;
 - the European data bank should receive a steady flow of computerized information on waste and waste disposal and on any incidents as they occur;
 - transnational coordination of emergency plans needs to be organized.
- (c) More research into reactor safety and the fuel cycle; a comparison of the various systems and various methods of treatment or processing based on the most advanced methods of accident risk analysis.
- (d) Institutional measures
- coordination and strengthening of Commission resources;
 - the creation of an information and control service (data bank, technical advice, coordination of activities in the event of a serious accident).
- (e) Financial measures
- a specially created fund for the decommissioning of power stations;
 - back-up measures for insurance schemes;
 - financial support from the Regional Fund for the investments needed for the emergency planning .



MOTION FOR A RESOLUTION (DOCUMENT 1-668/80)

tabled by Mr V. MICHEL

pursuant to Rule 25 of the Rules of
Procedure on nuclear safety policy

The European Parliament,

- having regard to the importance of a coordinated policy on nuclear safety,
 - having regard to the need to take concrete measures for the implementation of the conclusions in the reports drawn up after the Harrisburg incident,
 - having regard to the multiplicity of services dealing with safety matters and the present fragmentation of Community administration, which acts as a brake on progress in this field,
 - whereas such fragmentation renders any purposeful assessment of the budgetary needs of nuclear safety policy impossible,
1. Calls on the Commission to make nuclear safety policy a separate, comprehensive and integrated policy, under the responsibility of a single directorate with the independence required to draw up such a policy;
 2. Calls on the Commission to propose measures to monitor the implementation of this nuclear safety policy in the real-life situations where problems arise daily;
 3. Asks its responsible parliamentary committee to draw up a report on this subject.

ANNEX II

MOTION FOR A RESOLUTION (DOCUMENT 1-870/80)

tabled by Mr COPPIETERS and Mr CAPANNA
pursuant to Rule 25 of the Rules of Procedure

on the nuclear accident in La Hague

The European Parliament,

- having regard to Article 33 of the Euratom Treaty, which requires the Member States to respect safety standards for the protection of the public,
- having regard to Article 39(5) of Directive 76/579 of 1 June 1976, which requires the authorities of the Member States to inform the Commission and neighbouring countries in the event of an accident involving exposure of the public to the risk of radiation,
- whereas the nuclear waste processing installation at La Hague in France, which reprocesses the nuclear waste from power stations in several Member States under contract and is to extract the plutonium required for the operation and annual refuelling of the Super Phenix fast-breeder reactor at Creys Malville, which is financed jointly by France, the Federal Republic of Germany, Belgium, Italy and the United Kingdom, is a key factor in the Community's nuclear strategy,
- concerned at the series of accidents which have occurred at La Hague in recent months, in particular the incident of 6 January 1981, which, according to the information available, led to a leak of radiation at the site far exceeding the maximum permissible level and contaminated the surrounding area,
- aware of the difficulties involved in the industrial application of uranium oxide waste reprocessing,

CALLS ON the Commission of the European Communities:

1. to urge the French authorities to respect their obligations regarding the provision of information on nuclear accidents;

2. to organize as a matter of urgency, in conjunction with the French authorities, an independent inquiry into the short- and long-term effects of the accident of 6 January at La Hague on the health of the local population;
3. to present to the European Parliament as soon as possible a general report on the situation at the installations at La Hague, notably as regards:
 - (1) working conditions;
 - (2) accidents in 1980 and 1981, their causes and the implications for the health and safety of the workers and the local population;
 - (3) the results of the application of the PUREX procedure for the reprocessing of uranium oxide waste, the difficulties encountered and the resulting working conditions;
 - (4) the potential quantities of waste which can be reprocessed and the amounts of plutonium which can be extracted, particularly in relation to the commitments entered into with other Community countries and the credibility of the fast breeder reactor option.

ANNEX III

MOTION FOR A RESOLUTION (DOCUMENT 1-913/80)

tabled by Mr COPPIETERS, Mr CAPANNA, Mr GENDEBIEN,
Mr LYNGE, Mrs MACCHIOCCHI, Mrs VIEHOFF, Mr BOYES,
Mrs BUCHAN, Mr BALFE, Mr van MINNEN, Mr SCHWENCKE,
Mr VAN MIERT, Mr COLLA, Mr LINDE, Mr MICHEL,
Mrs LIZIN, Mrs BOSERUP, Mrs CLWYD, Mrs CASTELLINA,
Mr PANNELLA, Mr BLANEY

with request for urgent debate pursuant to
Rule 14 of the Rules of Procedure

on the nuclear accident at LA HAGUE

The European Parliament,

- having regard to Article 33 of the Euratom Treaty, which requires the Member States to respect safety standards for the protection of the public,
- having regard to Article 39(5) of Directive 76/579 of 1 June 1976, which requires the authorities of the Member States to inform the Commission and neighbouring countries in the event of an accident involving exposure of the public to the risk of radiation,
- whereas the nuclear waste processing installation at La Hague in France, which reprocesses the nuclear waste from power stations in several Member States under contract and extracts the plutonium required for the operation and annual refuelling of the Super Phenix fast-breeder reactor at Creys Malville, which is financed jointly by France, the Federal Republic of Germany, Belgium, Italy and the United Kingdom, is a key factor in the Community's nuclear strategy,
- concerned at the series of accidents which have occurred at La Hague in recent months, in particular the incident of 6 January 1981, which, according to the information available, led to a leak of radiation at the site far exceeding the maximum permissible level and contaminated the surrounding area,
- aware of the difficulties involved in the industrial application of uranium oxide waste reprocessing,

CALLS ON THE COMMISSION OF THE EUROPEAN COMMUNITIES :

1. to organize as a matter of urgency, in conjunction with the French authorities, an independent inquiry into the short- and long-term effects of the accident of 6 January at La Hague on the health of the local population;
2. to present to the European Parliament as soon as possible a general report on the situation at the installations at La Hague, notably as regards:
 - (1) working conditions;
 - (2) accidents in 1980 and 1981, their causes and the implications for the health and safety of the workers and the local population;
 - (3) the results of the application of the PUREX procedure for the reprocessing of uranium oxide waste, the difficulties encountered and the resulting working conditions;
 - (4) the potential quantities of waste which can be reprocessed and the amounts of plutonium which can be extracted, particularly in relation to the commitments entered into with other Community countries and the credibility of the fast-breeder reactor option.

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JUSTIFICATION

The request for urgency is justified in view of the danger threatening the population of the area around the LA HAGUE installation, the frequency of accidents and working conditions at the plant.

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