COUNCIL DECISION

of 15 December 1989

adopting a specific research and technical development programme for the European Atomic Energy Community in the field of management and storage of radioactive waste

(1990 to 1994)

(89/664/Euratom)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Article 7 thereof,

Having regard to the proposal from the Commission, submitted after consultation of the Scientific and Technical Committee (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas the Council, in adopting the framework programme of Community research and technological development (1987 to 1991) (4), acknowledged the value of an activity 'Fission: Nuclear Safety' which includes, in particular, a research and development area 'radioactive waste management';

Whereas radioactive waste is produced by the use of nuclear energy and by the use of radionuclides in medicine and in other industrial activities;

Whereas it is therefore essential to implement effective solutions to guarantee the safety and protection of man and the environment against the potential risks associated with the management of such waste;

Whereas the fourth European Communities' action programme on the environment, which was the subject of the resolution of 19 October 1987 of the Council and the representatives of the Governments of the Member States meeting in the Council (5), underlines the need for Community action on the management and storage of radioactive waste;

Whereas, by its resolution of 18 February 1980 on the implementation of a Community plan of action (1980 to 1992) in the field of radioactive waste (6), the Council resolved to ensure the continuity of the research and development programmes in this sphere during the plan;

Whereas the programme on the management and storage of radioactive waste adopted by Decision 85/199/Euratom (7) has yielded positive results and opened up encouraging prospects which should be exploited through the implementation of research, development and demonstration projects representing the real waste management and storage conditions which can be expected in the future; whereas effective management of radioactive waste requires that very reliable techniques and very secure underground sites be used,

HAS ADOPTED THIS DECISION:

Article 1

A specific research and technological development programme for the European Atomic Energy Community in the field of management and storage of radioactive waste, as defined in the Annex, is hereby adopted for a period of five years from 1 January 1990.

Article 2

The funds estimated necessary for the execution of the programme amount to ECU 79,6 million including expenditure on a staff of 14.

An indicative breakdown of this amount appears in the Annex.

Article 3

Detailed rules for the implementation of the programme and the level of the Community's financial contribution are set out in the Annex.

Article 4

1. During the third year of its implementation the Commission shall review the programme. A report on the results of this review shall be sent to the European Parliament, the Council and the Economic and Social Committee. This report shall be accompanied where

(1) OJ No C 144, 10. 6. 1989, p. 11.
(2) OJ No C 323, 27. 12. 1989.
(3) OJ No C 329, 30. 12. 1989.
(4) OJ No L 302, 24. 10. 1987, p. 1.
(5) OJ No C 328, 7. 12. 1987, p. 1.
(6) OJ No C 51, 29. 2. 1980, p. 1.
(7) OJ No L 83, 25. 3. 1985, p. 20.

necessary by proposals for the amendment of the programme.

2. On the expiry of the programme, the Commission shall report on the results achieved to the European Parliament, the Council and the Economic and Social Committee.

3. The reports referred to in paragraphs 1 and 2 shall be established having regard to the objectives set out in the Annex to this Decision and in accordance with Article 2 (2) of Decision 87/516/Euratom, EEC [1].

Article 5

For the implementation of the programme, the Commission shall be assisted by Management and Coordination Advisory Committee CGC 6 (Nuclear fission energy — Fuel cycle/processing and storage of waste) set up by Council Decision 84/338/Euratom, ECSC, EEC [2].

Article 6

This Decision is addressed to the Member States.

Done at Brussels, 15 December 1989.

For the Council
The President
H. CURIEN

[1] OJ No L 302, 24. 10. 1987, p. 1.

[2] OJ No L 177, 4. 7. 1984, p. 25.

ANNEX

OBJECTIVES, TECHNICAL CONTENT, IMPLEMENTATION OF THE PROGRAMME, INDICATIVE BREAKDOWN OF THE AMOUNT AND EVALUATION CRITERIA

1. Objectives

The programme is aimed at perfecting and demonstrating a system for managing radioactive waste, including unreprocessed irradiated fuel where this is considered as waste, which will ensure, at the various stages, the best possible protection of man and the environment. In particular, research will be continued on the characterization and description of the various barriers considered, both engineered and natural (geological), and the findings will be used to evaluate the long-term safety of this waste disposal concept.

2. Technical content

Indicative breakdown of the amount (millions of ecus)

PART A

Waste management and associated R & D projects

A1 *Studies of management systems* 5,4

Task 1: Study of systems including analytical models for minimizing the transport of waste. Harmonization of policies and practices concerning the management of waste, including waste from dismantling operations and irradiated fuels. Information for the general public. The system studies will concern the evaluation of various scenarios for the management of different types of waste. Harmonization work will mainly involve the development of common waste-management criteria and schemes.

A2 *Treatment of waste* 7,5

Task 2: Treatment and packaging of waste, including unreprocessed irradiated fuel, where this is considered as waste. Treatment of radioactive waste. The work will concern the development of advanced processes for minimizing the production of waste, minimizing the discharge of radioactive effluent into the environment and reducing the volume of waste for disposal and study of the potentialities of transmutation.

A3 *Safety of the multi-barrier system of geological disposal* 39,2

Task 3: Characterization and description of waste forms, packages and their environment. The various waste packages will be studied in an environment representative of final storage so that the safety of their long-term behaviour can be ascertained. The quality control of waste forms will also be developed.

Task 4: Disposal of radioactive waste: research to back up the development of underground repositories. The work will concern the radionuclide isolation properties of the various types of rock envisaged for the disposal of waste, and also some design aspects of the construction and operation of underground repositories in such environments, the aim being to evaluate their feasibility and safety.

Task 5: Methods of evaluating the safety of disposal systems. The methods developed hitherto will be perfected and extended to new types of waste, in order to carry out a comprehensive safety assessment of radioactive waste storage facilities, taking into account their radiological and environmental impact and nuclear safety.

PART B

Construction and/or operation of underground facilities open to Community joint activities		27,5
Project 1	Pilot underground facility in the Asse salt mine in the Federal Republic of Germany	
Project 2	Pilot underground facility in the argillaceous layer under the Mol nuclear site in Belgium	
Project 3	Underground validation facility in France	
Project 4	Underground validation facility in the United Kingdom	
Other projects could be added in the course of the execution of the programme		
	Total	79,6 (1)

3. **Implementation**

The programme will be implemented mainly through shared-cost research contracts with appropriate organizations, undertakings and companies — public or private — established in the Member States. Small and medium-sized undertakings will be encouraged to take part in the programme.

Together with the invitation to participate in the programme, the Commission will send out information brochures in all the Community languages so as to give an equal opportunity to undertakings, universities and research centres in the Member States.

In addition to shared-cost research contracts, the programme may also be carried out by means of study contracts, co-ordination projects and awards of training and mobility grants. Such contracts and grants will, where appropriate, be awarded following a selection procedure based on calls for proposals published in the *Official Journal of the European Communtities*.

The Community's contribution will not normally exceed 50 % of the total costs of the project. Alternatively, in respect of univeristies and similar organizations, the Community may bear up to 100 % of the marginal costs which are additional to the normal recurrent costs without the execution of the project.

Specific coordinated research projects already launched in the previous programme will be continued in order to promote and intensify cooperation between teams in the various Member States. International cooperation within the projects in Part B (underground facilities) will be promoted in particular.

Where appropriate, shared-cost projects should be carried out by participants from more than one State.

The information resulting from the implementation of the shared-cost activities will be made accessible on an equal basis to all Member States. Licences and/or other rights developed in the framework of the programme will be subject to Community rules, taking account of contractual arrangements. This information will also have to be used for the publication of clear, factual and accurate documents to inform the Community institutions and the public about the main aspects of the technology of radioactive waste management, which it will then be possible to assess in the more general context of toxic waste management.

4. **Evaluation criteria**

The programme is to be evaluated by independent experts in accordance with the Community plan of action relating to the evaluation of Community research and development activities. The evaluation criteria will include the following:

— the extent to which research proposals were selected against relevant criteria (scientific, technical or Community interest and cost),

(1) Of which about ECU 8,4 million is to cover staff and administration costs.

— the extent to which substantial development of knowledge, techniques and equipment has resulted from the work supported, taking into account the objectives mentioned above,

— the potential relevance of the results with regard to safety and protection aspects and in particular with regard to radioactive waste disposal,

— the potential relevance of the results with regard to radioactive waste management and disposal on an industrial scale,

— the extent to which information exchange and co-operation across the borders of Member States have been promoted,

— the programme's contribution to the development of Community policies in the field,

— the extent to which the programme has avoided duplication of research work,

— the extent to which the programme has facilitated the supply of information to the general public and the participation of the communities concerned.