

Research: supplementary programme, Joint Research Centre JRC for the EAEC 2000-2003, Petten reactor

1999/0232(CNS) - 11/11/1999 - Legislative proposal

PURPOSE : to adopt a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community. **CONTENT :** on 27 June 1996, the Council adopted a four-year supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community (1996-1999) concerning the operation of the High Flux Reactor (HFR) of Petten. This programme is therefore due to expire on 31 December 1999. The present proposal for a decision presents a new four-year programme (2000-2003). The High Flux Reactor (HFR) of Petten is operated by the Commission in accordance with the Euratom / Netherlands agreement of 25 July 1961. Under this agreement, on behalf of the Community, the Commission has committed itself to build the necessary facilities and to provide additional equipment in order to make "optimum use" of these facilities (including the HFR). This agreement was signed for a period of 99 years. In order to execute it, the two parties concluded a long lease for 99 years conferring a right in rem (bail emphytéotique) on 31 December 1962. HFR plays an important role, in the European Union, in medical research and applications, in materials research and in support to safe nuclear technologies. For example: - the reactor produces isotopes necessary for more than 60% of the 10 million of medical diagnoses executed every year in Europe. Its qualities and reliability make it an indispensable device for all the European pharmaceutical companies in this field. Moreover, through its location in Europe, the reactor's production is rapidly directed to the European medical centres. This is essential for the most currently used short-life isotopes; - the closure of the HFR reactor could quickly lead to the monopolistic situation of a non European company. The fact would have major technical and financial consequences for the European Union: a reduced guarantee for the provisioning of short-life isotopes and a price increase that had to be supported by the social systems of the Member States; - HFR is also used by an association of European centres working on a new treatment for encephalic cancers by using the BNCT (Boron Neutron Capture Therapy) techniques. This disease causes about 15,000 deaths a year in Europe. Only Japan, the United States and Finland have developed installations of the BNCT type; - the HFR reactor also supports other research: production of new isotopes, development of other technical BNCT-applications, research on new alpha-immuno-therapy products, studies on materials for medical prothesis...; - fundamental research makes use of neutron beams for the study of the material's structure. This activity is under permanent development and even leads to the construction of new reactors such as FRM II in Germany. In this frame, a unique European device for measuring the residual stresses in industrial structural components of up to one Ton was assembled in the reactor in 1998; - despite the decrease in R+D resources in the nuclear field, HFR remains very active in the safety of the existing reactors as well as for the development of future safer reactors. HFR contributes to the following programmes: reactors' ageing and life management, transmutation of nuclear waste in view of a better safety of waste storage, improvement of the fuel efficiency and safety; - fuel containing plutonium (Mixed oxides of U and Pu and high temperature reactor fuel) are studied in view of the elimination of military grade plutonium; - the design and realisation of the future safer reactors are conditioned by the performance of several materials. These materials are tested in the HFR reactor. Under the present supplementary programme that is drawing to a close, the HFR activities were essentially conducted through a co-operation between three partners: the Netherlands, Germany and France, which guaranteed its financing. Additional financing, which has steadily increased, came from external contracts and from its participation in Community programmes. The work programme was planned, therefore, to meet the requirements expressed under the terms of this cooperation. In the minutes of the Council meeting of 27 June 1996, the Commission declared that it confirms the expression "participation in Community programmes" means that the HFR can contribute, on the basis of adequate financing, to the execution of Community programmes, whether or not in the context of the Framework

programmes. This participation will take place either on a competitive basis or by means of sale of irradiation services to JRC Institutes during the implementation of their respective activities. In view of the new HFR programme, the Commission has engaged an assessment of the reduction of the operational costs of the reactor on the basis of a study involving all partners and supported by specialised companies. This has resulted in a series of internal reforms aimed at increasing the HFR's competitiveness without damaging either its safety, or its reliability. In its financial statement, the appended proposal for the new supplementary programme mentions only the contribution to come from the three participating Member States. The establishment of formal contracts, to be drawn up with external partners, cannot take place until a legal basis exists. The Council's decision will constitute this legal basis. This contribution from the three participating Member states for the new programme is of EUR 38.97 million. This amount includes the contribution to the future decommissioning of the reactor. Furthermore, the Commission shall each year be responsible for carrying out the programme through its Joint Research Centre. The Board of Governors of the Joint Research Centre will be kept informed about the implementation of the programme. The Commission shall each year, before 15 April, submit to the European Parliament, the Council and the Economic and Social Committee a report on the implementation of this decision.