research and technology

bulletin published by the press and information services of the commission of the european communities

REPRODUCTION AUTHORIZED

16 January 1970 No. 39

Community's Working Group on Scientific and Technical Research Policy (Aigrain Group) will begin a COMPARISON OF THE NATIONAL RESEARCH PROGRAMMES AND BUDGETS of the Member States of the Community, after considerable preparatory work, particularly in the field of statistics. This part of its work, which is without doubt the most important, should result in the definition of new fields of cooperation in addition to the seven sectors already decided on (data-processing, telecommunications, abatement of nuisances, meteorology, oceanography, new means of transport, metallurgy), which have already given rise to 47 proposals for joint action.

Meanwhile specialized groups are continuing to study the possibilities for cooperation in the fields of scientific documentation and the training and exchange of scientists.

** At Luxembourg during the week beginning 12 January the representatives of 17 European countries discussed the draft of a convention creating a <u>EUROPEAN PATENT</u>, on the basis of the proposals put forward by the six countries of the Community (Lee "Research and Technology" No. 16). The text of this convention will be ready by the end of February, and an exchange of

views with the circles concerned has been stated for the end of April.

- ** The Commission of the European Communities recently forwarded to the Community's Council of Ministers a proposal relating to the possible EXTENSION OF THE AGREEMENT FOR COOPERATION between Euratom and Great Britain. This agreement, concluded on 4 February 1959 for a period of ten years, was extended on 3 February 1969 and is due to expire on 3 February 1971.
- ** The Commission of the European Communities recently published a THIRD LIST OF ALL THE TECHNICAL NOTES which were circulated between 15 March and 15 December 1969.

These technical notes contain brief descriptions of the results obtained in carrying out Euratom research programmes and are intended to enable Community industries to judge whether industrial exploitation of these results is worth while.

** Although during the last three years several nuclear power plants both within and without the Community have experienced troubles of some duration, THE DIFFICULTIES ENCOUNTERED HAVE NOT BEEN SUCH AS TO COMPROMISE THE FUTURE OF THE TYPE OF PLANT CONCERNED. This emerges from a reply which the Commission of the European Communities recently gave to a written question put by Mr Raedts, a member of the European Parliament, with reference to the following nuclear power plants: Trino Vercellese and Chooz, stopped following incidents affecting the reactor vessel and internals; Gundremmingen, operation of which was hampered for several months by turbine problems; Latina, which has had troubles due to steel corrosion and sub-standard behaviour of certain fuel element cans; and, lastly, EL-4 and Chinon-3, in which incidents affecting the heat exchangers have led to non-availability. 1284/X/70 e

- be applied to the COMMUNICATION OF NUCLEAR INVESTMENT

 PROJECTS to the Commission of the European Communities

 (Articles 41 and 44 of the Euratom Treaty) if the

 Council of Ministers of the Community approves a

 proposal recently submitted to it by the Commission,

 a brief analysis being given in AN ANNEX.
- ** A Community GUIDE SERVICE for the development of RADIOMETRIC METHODS IN THE TEXTILE INDUSTRY is to be set up by the Institute for Textile Technology of machen, Germany, under a contract signed by the Commission of the European Communities. The aim of this service is to adapt radiometric techniques to the practical requirements of the textile industry, with a view to fostering the automation and rationalization of production processes and the improvement of the quality of textile products. It will also supervise the training of specialists, the promotion of nuclear techniques and the study of applications of radiometry in textile enterprises.
- ** Biology experts of the Commission of the European Communities have been participating since 1965 in the work of the EUROPLAN MOLECULAR BIOLOGY ORGANIZATION, a non-governmental scientific organization set up as a result of a Convention signed by 12 European countries. This emerges from the reply which the Commission recently gave to a written question put to it by Mr Vredeling, a Dutch member of the European Parliament.
- ** THE ELECTRICITY PRODUCERS of the European Community will meet in Brussels on 26 January. This is the first meeting since the Council of Ministers resolution dated 30 June 1969, which in reply to a proposal put forward by the Commission recognized

the advisability of periodical comparisons of the views and intentions of the Community's electricity producers. On 26 January these producers will therefore examine the SHORT AND MEDIUM TERM PROSPECTS for the construction of electric power stations, the RATIONALIZATION of types and standards and also the improvement of the OPERATION OF THE COMMON MARKET in the electrical engineering field.

- ** The Commission of the European Communities recently awarded the Belgian company of Sobemap a study contract relating to output and production capacity of companies manufacturing NUCLEAR COMPONENTS for power reactors.

 On the basis of this study it is hoped to be able to compile an inventory showing the qualitative and quantitative aspects of the production of nuclear components within the Community. Thus it will be possible to form an estimate of the DEGREE OF COMPETITIVITY of these companies on the international market, and hence to map out ways and means of improving the situation in full knowledge of the facts.
- ** The Commission of the European Communities has just finished publication of the first part of a GLOSSARY CF FLASMA PHYSICS in five languages (Dutch, French, German, Italian and English). There had been an urgent need for a uniform terminology in this scientific sector, which has undergone a rapid development in recent years, and the Commission has a duty under the Treaty to take the necessary action. The Glossary of Plasma Physics has been printed initially in a limited number of copies, since it is to be supplemented and amended in the light of subsequent suggestions. However, it can be obtained by interested specialists from the Scientific and Technological Information Service, 200 rue de la Loi, 1040 Brussels, Belgium.

- ** The availability of thermal electric power plants is often compromised by the quality of the water which is used as the coolant in the steam generators. The risks of corrosion and also of the transfer and deposition of corrosion products increase, of course, with the sophistication of the design and the power of an installation. The Commission of the European Communities has therefore asked for a study to be made of the methods and the various items of equipment at present in use for MONITORING THE WATER USED AS A COCLANT IN THERMAL POWER PLANTS within the Community.
- ** The Commission of the European Communities has recently published the following scientific reports in the Euratom Reports series:
 - Etude des consommations alimentaires des populations de onze régions de la Communauté européenne en vue de la détermination des niveaux de contamination radioactive (Study of the diet of the populations of eleven regions in the European Community aimed at determining the levels of radioactive contamination) 590 pages 750 FB No. EUR 4218 f available in French
 - Experimentelle Untersuchung des Wärmeübergangs in parallel durchströmten Rohrbündeln bei konstanter Närmestromdichte im Bereich mittlerer Prandtl-Zahlen (Experimental study on heat transfer in parallel-flow tube bundles at constant heat flux for medium Prandtl numbers) 154 pages 195 FB No. EUR 4299 d available in German
 - A radioactive tracer technique to study the hydrodynamic behaviour of an effluent decontamination plant - 20 pages - 40 FB - No. EUR 4402 e available in English.

These various aspects of a problem which is clearly of a highly complex nature have formed the subject-matter of several study contracts awarded by the Commission of the European Communities.

ANNEX

Modification of the Procedure for Declaring Nuclear Investments

The industrial companies which have to inform the Commission of their nuclear investment projects will hence-forward benefit from a simplified procedure, but one which will have to be initiated sooner, if the Council of Ministers of the Community adopts a proposal recently submitted to it by the Commission.

The Euratom Treaty stipulates that the Community "shall facilitate investment and ensure, particularly by encouraging the business enterprise, the construction of the basic facilities required for the development of nuclear energy within the Community". The Commission has two means of attaining this aim: firstly, by the publication of target programmes on the trend of nuclear energy needs, and secondly by the discussion with persons or enterprises of the investment projects which they have to communicate to the Commission, and on which the Commission expresses a point of view.

Annex 2 of the Euratom Treaty lists the investment projects which come under this heading. They fall into the following groups: the production of ores and nuclear materials, the fabrication, enrichment and reprocessing of nuclear fuel elements, and the construction of nuclear power plants.

The Treaty creating the European Coal and Steel Community (ECSC) also obliges industrial companies to communicate their investment projects to the Commission of the European Communities. There was no such clause in the Treaty of the European Economic Community, but the Commission has recently submitted proposals compelling companies to declare investments in the hydrocarbon and oil sector.

To return to nuclear matters, the procedure established by the application of the Euratom Treaty has not in fact yielded satisfactory results. The scrutiny by the Commission of the detailed projects communicated to it takes time, and - 2 - ANNEX

when it is finished the state of progress of the work often makes it useless, or at least deprives it of much of its value, both to the enterprises and to the Community.

In view of this, the Commission recently submitted to the Council a proposal for modifying the deadlines for the communication of projects. These deadlines are at present three months before the conclusion of the first contracts with the suppliers, or three months before work is started, if the work is being done by the enterprise itself. They are to be replaced by two earlier deadlines, and at the same time the questionnaire submitted to the enterprises will be simplified, in order to expedite its examination by the Commission and hence speed up promulgation of an opinion by the Commission.

If the Council follows the Commission and accepts the proposed amendment to Article 42 of the Euratom Treaty, investments would be communicated in the following two stages:

- the projects would be submitted to the Commission, and for the record to the Member State concerned, in the form of a brief description nine months before the conclusion of the first contracts or before the beginning of work;
- the enterprise would then still have five months in which to send the Commission a detailed description of the investment project.