

industry research and technology

WEEKLY

REPRODUCTION AUTHORIZED

Brussels, 14 December 1971

No. 124

** The forthcoming enlargement of the Community is the time to take a POLITICAL DECISION TO WORK OUT THE INSTITUTIONAL FRAMEWORK REQUIRED BY A COMMUNITY SCIENCE AND TECHNOLOGY POLICY: This was stated by Mr Spinelli, the Member of the Commission of the European Communities with special responsibilities for industrial affairs and research, when he opened the International Symposium on the COMMUNITY'S TECHNOLOGY POLICY, held on 10 and 11 December and organized by the University of Nice, where specialist work has been carried out for many years on international cooperation in culture, science and technology.

Extracts from Mr Spinelli's speech will be found in ANNEX 1.

** The European Parliament's Committee on Social Affairs and Public Health has adopted a report prepared by Mr Califice, a Belgian member of the European Parliament, on the activities of the MINES SAFETY AND HEALTH COMMISSION and the STEEL INDUSTRY SAFETY COMMISSION. The Parliamentary Committee is concerned, in particular, at the rising trend of certain types of serious accident in the

This bulletin is published by the Directorate General Press and Information of the Commission of the European Communities

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The information and articles published in this Bulletin concern European scientific cooperation and industrial development in Europe. Hence they are not simply confined to reports on the decisions or views of the Commission of the European Communities, but cover the whole field of questions discussed in the different circles concerned.

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coal mining industry and the number of fatal accidents in the iron and steel industry, and has called on the Commission of the European Communities and the two safety commissions to investigate their causes and recommend preventive measures for adoption by the Member States. It considers it advisable that the Steel Industry Safety Commission should also direct its attention, as a matter of priority, to the fight against air pollution due to iron and steelmaking, and to noise abatement in iron and steel plants. It congratulated the Safety and Health Commission on its decision to put in hand in the near future a study on problems inherent in the conditions of employment of foreign workers, and its intention to extend its studies on health protection to take in environmental factors and the medical aspects of dust elimination. In this connection, it laid emphasis on the need to take effective measures for the prevention of occupational diseases.

A brief rundown of the work of the Mines Safety and Health Commission will be found in ANNEX 2. In a forthcoming issue we shall return to the subject of the tasks assigned to the Steel Industry Safety Commission.

** Speaking to the press about the session of the Community's Council of Ministers held on 6 December, (see "Industry, Research and Technology" No. 123) MR THEO LEFEVRE, BELGIUM'S MINISTER FOR RESEARCH, stressed the fact that in the field of science Europe suffers from a LACK OF POLITICAL DETERMINATION: the forthcoming "enlarged Community summit" should tackle the problem, and do so even more forthrightly than at the Hague summit in December 1969 (see "Industry, Research and Technology", No. 36)

** In the coming months the DEMAND FOR ENERGY IN THE COMMUNITY will probably start to feel the effects of the slackening of economic activity that began some time ago, and adequate supplies seem assured for the coming winter. This emerges from a note on the current energy position recently published by the Commission of the European Communities.

In the first six months of this year consumption of petroleum products increased by only 6.5%, approximately half the rise in the first half of 1970. The slower growth in demand than forecast, a return to substantially normal supply of crude oil and a considerable drop in freight rates have all resulted in some decline in the prices of petroleum products (following the cost increases in 1970 and early 1971, due to the rise in freight rates and the terms of the Teheran agreements).

The market for coal is suffering from the effects of the slow-down in steelmaking. If this trend persists up to the end of the year, it will mean that consumption of coke will run at about three million metric tons less than was forecast. In the domestic sector, coal is losing ground particularly rapidly. On the other hand, a sharp increase is evident in the consumption of natural gas for industrial purposes. For the future, the comparative stability of natural gas prices will probably tend to promote continued rapid growth. Its use in thermal power stations is also growing fast in Belgium and Germany, and in the Netherlands, where all new power stations are built to burn natural gas either as their sole or as an alternative fuel.

** The Commission of the European Communities recently placed contracts for three studies concerning the energy sector, namely:

1. A study on the future of ACETYLENE as a petrochemical feedstock, which will be carried out by METRA INTERNATIONAL of Paris. It is intended to establish the production cost of acetylene supplied from plants in the Community and from plants which might be built close to petroleum deposits for processing their associated gases. It will also permit comparison of the production costs of petrochemical derivatives obtained from ethylene and those which could be produced from acetylene.

2. A study to estimate the cost of STORING PETROLEUM UNDERGROUND in two geological formations in France which appear suitable for the purpose, but on which insufficient data have so far been collected, is to be carried out by the French Petroleum Institute's Industrial Research and Cooperation Office (Rueil Malmaison, France).

3. A study on the technical and economic prospects for the installation of NUCLEAR COMPLEXES in the European Community, commissioned from the Technische Hochschule Aachen in 1969, will be extended by a supplement to the contract; suitable sites for multi-unit nuclear power plants will be studied, with particular regard to the problem of cooling. The study will also aim to determine the optimum size of such complexes.

** The Joint Secretariat of the Food and Agriculture Organization (FAO) and the International Atomic Energy Agency (IAEA) is to hold two panel discussions on FOREIGN

CHEMICAL SUBSTANCES IN FOOD AND THE AGRICULTURAL ENVIRONMENT on 8-10 November 1972. They will take place at the Ispra Establishment, Joint Research Centre, where important research projects are in progress in this field. Some 15 FAO-IAEA experts will take part in these discussions, as well as the research workers involved at Ispra.

- ** A manual of EUROPEAN AND AMERICAN STEELS FOR BOILERS AND PRESSURE VESSELS, which includes comparative tabulations of grades of steel, tables of properties and low-temperature toughness values was recently published by the European Association of National Boiler and Pressure Vessel Trade Associations in three languages (English, French and German).
- ** Experience has shown that protracted outages of a number of NUCLEAR POWER PLANTS which were due to the behaviour of certain items of equipment could have been considerably reduced if suitable techniques had been available for MONITORING the components in question. It has become clear from exchanges of experience with the operators that a joint project in this field would be extremely useful. In view of this, the Commission of the European Communities recently put in hand a study involving a critical comparison of techniques for the operational monitoring of nuclear plant components based on vibration and noise analysis for the detection of incipient defects.

The study will be carried out by Allianz-Zentrum für Technik GmbH, Electricité de France, the Ente Nazionale per l'Energia Elettrica, the Laboratoire de l'Industrie Electrique and the Laboratorium für Reaktorregelung und Anlagensicherung, Garching. The Toegepast Natuurwetenschappelijk Onderzoek (TNO), in the Netherlands, will also cooperate.

** Volumes 3 and 4 of the manual entitled "NEW TECHNICAL PROCESSES IN STEELMAKING" are to be published in Dutch, French, German and Italian by the Office for Official Publications of the European Communities (Case Postale 1003, Luxembourg 2).

ANNEX 1, p.1.

Extracts from
THE STATEMENT BY MR SPINELLI,
Member of the Commission of the European Communities
with Special Responsibility for Industrial Affairs
and Research
to the colloquium on
THE COMMUNITY'S TECHNOLOGICAL POLICY
(Nice, 10 and 11 December 1971).

In its earliest days the Community created an agricultural policy and a customs union for the traditional industries which feed the main markets of an affluent society. But science and the advanced-technology industries, which for thirty years have been nourished principally by the financial resources and purchasing power of the modern states, have been confined within national frontiers. This has greatly reduced their efficiency and productivity, and has made Europe needlessly dependent, both politically and technologically, upon the United States.

During the last twenty years scientific and technological policies have been directed primarily to quickening economic growth or heightening national prestige. But today humanity is no longer satisfied to follow a blind giant; in Europe, as in the other advanced societies, we are waking up to the fact that we must learn to control the monsters, and that we must dedicate the power of science and technology to new social ends and the satisfaction of new collective needs - for example, ecological studies and transport and communication across Europe or within our cities.

ANNEX 1, p.2

Of course, international cooperation in the technological field is not a novelty; over the last 20 years cooperative efforts have achieved important results. But we must recognize the limitations of the methods of cooperation used hitherto; so long as each country defines its policy and aims separately, serious problems will continue to bedevil efforts at international cooperation.

Thus everything points to the need to re-examine the Community institutions for technology and science and give them a fresh impetus. The initial treaties made virtually no provision for joint action in this field, crucial though it is. The impending enlargement of the Community marks the moment when a political decision must be made to lay the institutional foundations of a joint scientific and technological policy. It is furthermore essential that the task of defining an overall research and development policy should henceforward be the Community's department.

The first need is for collective meditation on the scientific and technological priorities which are appropriate for Europe. The Commission has therefore proposed that a European Research and Development Committee be created, composed of independent experts from a wide variety of fields, to examine all the relevant questions and help to formulate proposals on which the Council would take decisions (see "Industry, Research and Technology" No. 75).

It is also obvious that the Community needs executive and financial instruments, which must be clearly distinguished from the instruments of political decision. The Commission

has therefore suggested the creation of a European Agency for Research and Development. This would have to be a joint, general purpose instrument, which would take advantage of the manifold experience gained hitherto in the different sectors.

The essential condition is that the Community should have the financial resources to support projects which have been given priority rating and require joint financing. At present the Community budget is largely devoted to agriculture, the sector which has dominated the Community during the sixties. Let us hope that the seventies will be the decade of a successful scientific and technological policy, and that this will be reflected in the Community budget.

Experience has shown the value in all fields of a common centre of initiative; the Commission's right of initiative is written into the Treaties and is as essential in the field of research and development as elsewhere. As elsewhere, moreover, the role of the European Parliament is essential to a European scientific and technological policy. It is also essential that the European Parliament should become what it is not yet - a determinant factor in Community legislation, in the implementation of the Community budget and in the formation of a European Government. In the Community as it is at present we have no government; neither the Commission nor the Council can fill this political vacuum.

Legislative and budgetary decisions are, of course, proposed by the Commission and decided by the government representatives sitting in the Council. The paralysing fact, however, is that the Council is the sole legislative and budgetary power in the Community.

The Mines Safety and Health Commission

Safety has always been one of the major concerns of the coal industry and of the Community states, and ever since its inception the European Coal and Steel Community (ECSC) has financed Community research on the subject.

In 1956, after the Marcinelle disaster, when 262 miners lost their lives, the ECSC Council of Ministers convened a conference on safety in coal mines. This conference was attended by representatives of the governments, employers and employees of the Member States and by observers from the United Kingdom and the International Labour Organization. The object of the conference was to submit proposals to the governments and the ECSC for improving safety in coal mines. Its work was published in a report in March 1957. The governments gave this report ample consideration and its conclusions had a great influence on the drafting of further safety requirements.

As the conference was not able to make a systematic and exhaustive study of all safety problems, the governments decided, in view of the success of the tripartite structure of the conference, to set up a permanent commission to continue the work of the conference and to deal on a permanent basis with mine safety problems. On 9 July 1957, they decided on the terms of reference and rules of procedure of the Safety Commission, which comprises 24 members, or four for each country (two government representatives, one employees' representative and one employers' representative) together with observers from the United Kingdom and consultants from the International Labour Organization.

The government representatives constitute a select committee which serves as a link between the governments and the Safety Commission and is responsible for preparing the work of the Safety Commission.

The terms of reference of the Safety Commission, confined to safety in coal mines, were extended to problems of health protection in coal mines by decision of the special Council of Ministers on 11 March 1965.

The function of the Safety Commission

The Safety Commission watches the development of industrial safety and prevention of industrial risks which represent a hazard to health in coal mines (including developments in regulations adopted in this connection by the authorities). It obtains, more especially from the governments concerned, the necessary information on the progress and practical results achieved in these fields. On the basis of the information it processes, it then submits proposals to the governments for the improvement of safety and health in mines.

The work on safety and health done by the Commission of the European Communities in the framework of the ECSC complements the work of the Safety Commission. The Commission of the European Communities (and, before the merger of the Executives, the ECSC High Authority) is responsible for carrying out studies and research, the results of which may be of practical use in the long term, while the Safety Commission is responsible for ensuring the exchange of practical experience and the examination of problems which might in the short term become the subject of recommendations or directives. The Safety Commission thus puts into practical application the results of research carried out by the Commission of the European Communities and proposes research to it which is likely to promote the improvement of safety and health.

The Safety Commission is assisted in its task by working parties composed of experts of the Community countries and the United Kingdom. They study:-

Technical problems: rescue work, mine fires and underground combustion, winding ropes and shaft guides, electricity, flammable dust, joint accident statistics and, since March 1971, roof control mechanization, ventilation and firedamp.

Problems more especially connected with human factors: health (including the medical aspects of dust control and environmental factors such as noise, vibrations, etc.), sociological and psychological factors of safety, effect of methods of payment on safety.

The results of studies and exchanges of experience are circulated to the governments and interested circles as they are adopted by the Safety Commission. The Safety Commission also regularly organizes information conferences for trade-union leaders and management representatives, in order to disseminate directly the results of work done and to obtain through such exchanges ideas for the main lines along which the work should be directed.

So far, some 300 recommendations and numerous directives, in both the technical field and that of human factors, have been sent to the governments, which have taken them into account to a great extent in drafting their regulations. The governments are, moreover, asked every two years what they have done to follow up these recommendations and directives.

Furthermore, safety campaigns are shortly to be organized in the various Community coalfields on a specified subject selected by the Safety Commission, with the financial support of the Commission of the European Communities.