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EUROPEAN COMMUNITY PLANS WASTE RECYCLING RESEARCH

The Commission of the European Community is proposing a program to research the recycling of waste produced by households, industry and agriculture. Community waste now amounts to more than 1.5 billion tons annually.

The aim is to reduce the growing drain on the world's resources in energy and raw materials, to reduce the Community's dependence on imports of these resources, and to contribute to a cleaner environment.

The Commission estimates that the program will cost \$16 million and will take four years to complete.

Four major projects have been drawn up, following preparatory studies that Commission experts have worked on since 1975. One of them deals with the development of technology needed for sorting household waste, another for treating waste by heat. A third project concerns development of technology of newer, improved methods for treating organic waste, and a fourth concerns the recovery of useful products from discarded tires.

The sorting project calls for research in separation techniques in order to recover such materials as paper, glass, plastics, and fuel. The most widely-developed method has householders themselves doing the separating. The Community program proposes a comparison of the effectiveness of various schemes of this kind. For larger-scale separation using advanced processes, research is to focus on compressed air and shredding systems and on new techniques based on density separation and on optical, ballistic, tribo-electrical etc. methods.

The elimination project recognizes that incineration, the most common and most highly-developed method for getting rid of household waste, is not always efficient for all kinds of industrial waste. The Commission therefore proposes that, in addition to evaluating existing plants, new processes of gasification and chemical decomposition by the use of heat (pyrolysis) be developed. These processes offer not only the advantage of rapid and cleaner elimination but also the recuperation of energy, metals and glass.

The organic waste project focuses on research to develop the technology which will make it possible to recover useful organic products and energy from the large quantities of specifically organic matter in waste of all kinds. The Commission proposes research in: 1) the use of anaerobia, organisms that live without oxygen and which, by digesting organic waste, produce methane gas and other usable products; 2) the use of water to decompose cellulose and starch by chemical means (carbohydrate hydrolysis) into glucose, a product from which other useful chemicals can be produced; and 3) the production and greater use of high quality compost to fertilize and restore soil.

The project on the recycling of discarded tires emphasizes research aimed at developing advanced recovery processes for retreading, for shredding and grinding, for reclaiming rubber powder and for finding uses for the char residue that is left when rubber waste is treated by pyrolysis.

An Advisory Committee on Program Management will work with the Commission on allocating funds for specific projects. Research in some areas and pilot projects are already in operation in several member states of the Community. The Commission therefore specifies that where efforts are publicly financed they should be coordinated to avoid duplication.

If this program and its budget are accepted by the Council of Ministers, research work can begin on January 1, 1979.