CHANGING WOOD AND FIBRE INTO NEW MATERIALS

New materials for building purposes, for manufacture of some tools and possible for art purposes such as sculpture may become of importance through irradiating wood or fibre impregnated with plastics. Following an Agency study group meeting held in Bangkok tests are being made in Finland on bagasse, a sugar cane fibre, obtained from China.

A number of countries are carrying out research in the new techniques, which may be of particular interest for building work in the Far East. In some areas where there is a shortage of hardwood the new substitute materials have already been used for construction. By using radiation on wood or fibres soaked with styrene, methyl methacrylate, vinyl acetate or other forms of the basic components (monomers) of plastic, extremely hard wood can be created from soft wood. The monomers are polymerised by the treatment and are fixed

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At the Agency's study group meeting held in Bangkok three participants examine objects made from wood and fibre materials and subjected to plastic chemical and irradiation treatment. They are (L to R) Prof. J.K. Miettinen (Finland), Dr. M. Gotoda (Japan) and Dr. Chwa Kyung Sung (Korea).

uniformly and permanently with the fibre. The complete new material thus created resists wear, decay, insects and acids, will not burn easily, last for a long time, retains its shape and is easy to work with machines. It can also be given new colours.

The Bangkok study group consisting of 22 participants from 13 countries, came to the conclusion that the most worthwhile subject for immediate research was fibre-board, as this could produce benefits for the building industry in the Far East, and suggested a number of test projects. One of these is the Finnish study, in which artificial ways of accelerating aging effects are being used to test the durability of bagasse impregnated with plastic and subjected to radiation. Bamboo and jute also appear to be promising materials for the treatment.

Discussions took place on ways of co-ordinating research work, resources available, economic considerations, potential markets and future programmes. Reports were presented from Australia, Canada, China, Finland, Hungary, India, Japan, Korea, Pakistan, the Philippines, Sweden, Thailand, UK, USA, Vietnam, the Food and Agriculture Organization of the United Nations and the Economic Commission for Asia and the Far East.

AGENCY TO APPLY SAFEGUARDS UNDER NEW US-JAPAN AGREEMENT

A new agreement for Co-operation in the Peaceful Uses of Atomic Energy between the United States and Japan was signed in Washington on 27 February. Secretary Rusk and AEC Chairman Glenn T. Seaborg signed for the United States and Ambassador Shimoda for Japan.

This agreement, which is for a period of 30 years, continues co-operation in the peaceful development of atomic energy begun with Japan in 1955. It provides for the supply of enriched uranium from the U.S. to fuel 13 large nuclear power reactors to be built in Japan, and for the transfer by the AEC of up to 365 kilogrammes of plutonium for use by the Japanese in their peaceful research and development programme. In keeping with the long-standing policy of both countries, the International Atomic Energy will continue to administer safeguards under the new agreement.