Studies have only recently begun on production costs and on the obtainable quality and quantity of concentrated materials. In general, production is quite expensive, and it is difficult to achieve the high isotopic purity desired for many nuclear studies. Arrangements may be formulated for nonproject distribution of experimental lots after more experience has been gained with concentration and assay methods and after project needs become more clear.

As the situation warrants, announcements will be made concerning the availability of concentrated stable isotopes.

Charges

Charges will be made for irradiated materials and processed isotopes, as is the case for many widely useful products resulting from other research efforts. Pending experience, a reasonable charge is considered to be one based on the "out-of-pocket" operational expenses necessitated by the nonproject production and service program. Charges will not include costs of rental, or construction of plant and major facilities or of research and development directed toward the supplying of isotopes in general. The Project will supply the major facilities and develop the production methods, but will assess a charge for the additional running expenses of man power and materials incurred by the filling of nonproject requests. Shipping expenses will be paid by the requester. Details of these arrangements and the prices to be charged may be obtained upon request from the Isotopes Branch of the Manhattan District Research Division.

Mechanism for Making Requests

As explained in the section on "Principles of Allocation and Distribution," radioactive materials will not initially be distributed directly to private individuals but only to accredited institutions or organizations. However, materials will be allocated to an individual or a department for the specific uses proposed in the request.

A request may be initiated by a responsible applicant in an accredited institution by a short letter to the Isotopes Branch, Research Division, Manhattan District, P. O. Box E, Oak Ridge, Tennessee. This letter should request application forms, price quotations, and any essential information not contained in this notice. It should indicate briefly the radioisotopes desired, the approximate quantities needed, and the use to be made of the materials. If the desired material can be produced or made available and the intended use is one for which the isotope is suited, application forms will be furnished the applicant. These forms will permit applicants to supply in a concise and uniform manner the necessary detailed information on the basis of which the reviewers and the nonproject Advisory Subcommittee on Allocation and Distribution will be able to recommend action.

Action on an initial formal application cannot be initiated unless it has been indicated on the application that, when material is allotted, an "Agreement for Order and Receipt of Radioactive Materials" will be negotiated by the business administration of the requesting institution. This agreement relates to business and legal responsibilities in connection with the ordering, receipt, application, and disposal of radioactive materials by the applicant. The honoring of subsequent applications from the same individual or department can be arranged on a continuing basis by the indication of authorization for this in the originally negotiated agreement. All correspondence concerning requests and all forms should be addressed to the Isotopes Branch, as indicated above.

A Nuclear Research Institute at Oak Ridge

The Executive Committee, Oak Ridge Institute of Nuclear Studies

THE INTERNATIONAL SIGNIFICANCE of atomic energy as a military weapon and its potential peacetime uses have been in the forefront of public discussion for some time and have overshadowed other problems relating to the future of atomic energy developments. One problem that is receiving much attention in scientific circles today concerns the best procedure for ensuring the continuance and further development of broad fundamental research in the field of nuclear studies.

While there are differences as to procedure, the consensus appears to be that the broad national interest can best be served through the establishment of research centers for nuclear studies in several parts of the country. Established research groups in universities, government agencies, or industry can then cooperate with these centers in carrying on atomic research in physics, chemistry, biology, medicine, and engineering. It is well recognized that the cost of nuclear research is such that few, if any, of the established private research agencies, working alone, will be in a position to make substantial contributions to this field.

The position of Oak Ridge as a possible location for one of these centers appears to be unique, both because of the elaborate facilities already built and in operation there and because of the presence of a large and active research group in the Clinton Lab-

oratories already effectively engaged in such research. In view of this situation, a group of southeastern universities is sponsoring a plan looking toward the establishment of an Oak Ridge Institute of Nuclear Studies, where research at the Ph.D. level and above would be carried out in the fields of physics, chemistry, biology, medicine, and engineering. The establishment of such an institute will provide the formal channels for cooperative research between the universities and governmental research and producing agencies associated with the atomic energy project at Oak Ridge.

Although the initial sponsorship of this Institute has been confined to southeastern universities, other universities outside the region are now participating in its development. It is contemplated that a number of institutions throughout the United States will share in this cooperation, even though they are looking forward to the establishment of new research centers, similar to Oak Ridge, in the section of the country in which they are located.

The early establishment of such a cooperative Institute at Oak Ridge will have a number of important advantages in terms of the national interest in the development of atomic energy. Among these may be cited the following:

(1) The development of the Institute around the already existing research and production facilities at Oak Ridge can be accomplished with a minimum of delay so that cooperative research with universities can go forward actively at an early date. It will, obviously, be at least one to two years before the necessary organizational plans, design, and construction of facilities can be completed for the establishment of new centers for such cooperative research in other parts of the country.

(2) The cooperative Institute at Oak Ridge will serve as a prototype for the establishment of similar centers in other parts of the country. In the interim before the establishment of such other centers, research workers from universities in various parts of the country can be initiating research programs relating to nuclear studies, which otherwise would have to be delayed from one to three years.

(3) Two large isotope separation plants are being operated at Oak Ridge for the large-scale production of U 235 in addition to the research program being conducted at the Clinton Laboratories. Although these units are primarily industrial, the proximity of the large and active research group at the proposed Institute will be of great value in ensuring the vigorous development of these methods and in attracting and holding competent technical personnel for them.

(4) The location of a nuclear research center in the southeastern region is clearly important to the national interest. The recruiting of potential man power for work in this field has in the past been neglected except in limited regions of the country, notably the Northeast and the far West. With the location of a large and progressive research establishment in the Southeast, young men who otherwise would not be attracted to scientific work of this type will become interested.

(5) It is apparent that such research centers, wherever they are located, will have to be organized as geographically independent entities, and it will not, in general, be possible to locate them in close proximity to already existing educational or governmental institutions. The availability of an adequate amount of Government-owned land and the Government's existing large investment in facilities at Oak Ridge point toward this as one of the logical locations for the establishment of such a research center. In order to implement the establishment of such a cooperative Institute effectively, it will be necessary only to group and allocate properly such expanded research facilities as are contemplated at Oak Ridge in a common area where they can serve as the nucleus for the development of a future Institute. It is hoped that planning for the extension of research facilities at Oak Ridge will be done in such a way that these facilities can be brought together in a common area which would be appropriate for the future development of an Institute.

The national stake in the future of atomic energy is a vital one, and any steps that will assure that active research is not interrupted are of the utmost importance at this time. The effectiveness of such research depends on continued cooperation between private agencies, such as the universities and industry, and the Government. It therefore seems imperative that advantage be taken of the opportunity existing at Oak Ridge, with its established facilities and personnel, to develop immediately such cooperative research through the organization of an Institute for advanced nuclear studies.