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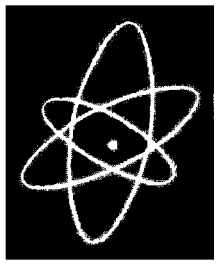
REPORT
of the
Preparatory Commission
of the International
Atomic Energy Agency



NEW YORK — 1957

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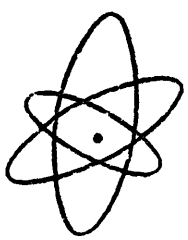
Report of the Preparatory Commission of the International Atomic Energy Agency

THE PROGRAMME, STAFF, BUDGET AND FINANCING OF THE AGENCY DURING ITS FIRST YEAR



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FOREWORD

1. The Preparatory Commission was created on 26 October 1956 by the Conference on the Statute of the International Atomic Energy Agency to make all necessary preparations for the first session of the General Conference and the first meeting of the Board of Governors of the Agency. It is composed of representatives of Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, Egypt, France, India, Indonesia, Japan, Pakistan, Peru, Portugal, the Union of South Africa, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America. The Commission elected Mr. Carlos A. Bernardes (Brazil) as its President, Mr. Pavel Winkler (Czechoslovakia) as its Vice-President, and appointed Mr. Paul R. Jolles as its Executive Secretary.

2. The mandate of the Preparatory Commission is set forth in Annex I of the Statute of the Agency, its major task being to "make studies, reports, and recommendations for the first session of the General Conference and for the first meeting of the Board of Governors on subjects of concern to the Agency requiring immediate attention, including (a) the financing of the Agency; (b) the programmes and budget for the first year of the Agency; (c) technical problems relevant to advance planning of Agency operations; (d) the establishment of a permanent Agency staff. . . ." On 29 October 1956 the Commission created a technical Working Group of the Whole to advise it on an initial programme for the Agency. The Preparatory Commission's report on the programme, staff and budget for the first year and on the financing of the Agency, which is the subject of this document, embodies the recommendations of the Working Group. It has the unanimous approval of the Commission.

3. The other reports and recommendations which the Preparatory Commission is required to make are being issued as separate documents and are listed in GC.1/INF/1:GOV/INF/1.

INTRODUCTION

1. Atomic energy has been, in the years since the Second World War, the object and the symbol both of the highest hopes and of the deepest fears of mankind. After the initial shock of the realization of its destructive powers, the world is awakening to the expectation of the great benefits which it can also bestow. But as the veils of secrecy and mystery are gradually put aside, it has become increasingly clear that the development of atomic energy for peaceful purposes demands a high degree of international co-operation. The United Nations International Conference on the Peaceful Uses of Atomic Energy at Geneva in 1955 showed impressively how great, in such a wide field of knowledge, were the opportunities and benefits of a free exchange of scientific information and techniques. The problem of radiation effects also points to the necessity for international co-operation in dealing with a force whose nature is so complex.

2. The International Atomic Energy Agency is the first attempt on a world-wide basis to face the challenge and opportunity of the peaceful uses of atomic energy. The report which follows is a recommendation, based upon the Statute of the Agency, as to how the new Agency can best begin to take a firm grasp of its great and promising responsibilities.

3. Since President Eisenhower suggested the creation of an International Atomic Energy Agency before the General Assembly of the United Nations in December 1953, international co-operation for the peaceful uses of atomic energy has taken on a new impetus. It is a measure of the progress made since that time that the desirability and necessity of such international co-operation is now universally accepted. The unanimous decision of the General Assembly in 1954 which called for the establishment of the Agency, the history of the negotiations and the unanimous approval of the Statute of the Agency by eighty-one nations all bear witness to the determination of the nations and peoples of the world to put this idea into effect.

4. This determination stems not only from a recognition of the potential contribution of atomic energy to the welfare of nations, but also from the realization that this contribution can only be made as a result of a common effort, if it is to be effective and beneficial for all nations, and that it must be subject to internationally recognized standards and responsibilities if future generations are to be safe from the hazards of radiation.

5. The basic objective of the Agency as defined in its Statute, is to "seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world". The value of that contribution is

varied and potentially enormous. The proceedings of the 1955 Geneva Conference and, more recently, the report of the Secretary-General of the United Nations to the Economic and Social Council on the economic application of atomic energy in power, industry and agriculture[1] are only two examples of the already vast documentation on this subject. As this last report indicates, there are today already more than 2,000 known applications of atomic energy, radioisotopes and radiation.

6. A few countries are already using atomic energy as a means to produce electric power, and there can be little doubt that, as the world's demand for energy increases, many nations will turn to atomic energy as a source of power, although its suitability and economic competitiveness will vary largely according to local conditions and demands and to future technological developments. In many countries on the verge of large-scale industrial development there is an acute shortage of conventional power resources. The long-term industrial growth of these countries will depend to a substantial extent on the exploitation of atomic power.

7. The applications of radiation and radioisotopes to research in medicine, industry and agriculture promise almost infinite possibilities for the advancement of knowledge, for the improvement of industrial processes and for economic and social progress. Differing local requirements and conditions will dictate the application and development of basic techniques and the direction of new research. There is no doubt, however, of the range and variety of ways in which atomic energy can serve mankind and become an indispensable means for keeping pace with the increasing demands of an ever-growing world population.

8. The Preparatory Commission therefore believes that the Agency will have a unique opportunity to apply available skill and knowledge to tasks which will result in real and lasting improvement in a given area, whether it be the increase of the food supply, the battle against some disease or the bringing of new sources of power to an area where conventional sources of energy are inadequate. The free exchange of scientific information will also play a vital role in supplying the basis for a general understanding and more ready use of the knowledge available for the solution of practical problems, as well as in indicating new and profitable avenues of research. The removal of restrictions in the last year or two on the widespread publication of information on the peaceful uses of atomic energy is a welcome development in this direction.

9. In extending the peaceful uses of atomic energy, the Agency must, however, also ensure that this process remains beneficial. By the early establishment of universally recognized standards of health and safety and methods of waste disposal, it can create conditions in which the world may look forward with confidence to the ever-increasing use of atomic energy in various ways in all areas of the world. The problems to be solved and the dangers to be met are international in scope. The possibility of contamination of the air, the sea and the waterways illustrates the need for action by an international body. Measures for the protection of health and

[1] United Nations document Sales No. 1957.II.B.2.

safety will therefore be a vital part of the Agency's programme from the start.

10. Nor must the broadening of the peaceful applications of atomic energy carry the danger of increasing the military potential. The creation of a reliable system of safeguards against diversion of fissionable material to military use is therefore an equally important part of the foundation of confidence upon which alone the Agency can build an effective programme in the future. It is in this way that the Agency can contribute, not only to prosperity, but also to world peace.

11. The variety of applications of atomic energy and the complexity of the problems to which it gives rise is reflected in the number of international bodies already dealing with certain aspects of this field. The Agency will use its influence to co-ordinate and harmonize international efforts in this field and thereby increase their effectiveness. It will also encourage uniformity where uniformity and standardization can lead to a more effective development.

12. The contribution of its Members to the Agency's programmes will vary according to many factors and in particular to their state of advancement in atomic technology. Thus the Agency's success as an intermediary in spreading the benefits of atomic energy will initially depend in large measure on the assistance of the more advanced countries and on the adaptability of the less advanced countries to new ideas and techniques. The Agency's creation is the expression of common resolve that the development of atomic energy shall not accentuate, but rather diminish the differences in the technological advancement and standards of living of the different peoples of the world.

13. The Agency, from its inception, will be faced with the problems created by the world-wide shortage of trained scientific and technical personnel. For this reason emphasis will have to be placed in its early years on training and technical assistance activities, and during those years especially it will depend to a great extent upon the trained manpower and the training facilities of all kinds which can be made available to it by its more advanced Members.

14. The Agency will also depend upon those same Members for the supply of fissionable materials and the access to facilities for their processing, fabrication into fuel elements, concentration for specialized uses and reprocessing after irradiation. The Agency's prospects of developing projects under its own auspices will also depend on the assistance which can be given to Member States in finding suitable sources of financing, and this in turn will be affected by the confidence which the Agency's programme inspires.

15. These problems can only be met along the lines indicated in the Statute and in the spirit of co-operation which has characterized the international approach to the peaceful uses of atomic energy. The incentives for this co-operation are strong. The benefits from a geographical broadening of the applications of atomic energy will flow to advanced and less advanced countries alike. In helping some countries to solve their develop-

ment problems it will stimulate industrial expansion in others, but, beyond all economic considerations, the Agency can become a powerful new bond for peace through increased international understanding.

16. Although its beginnings may be modest, the Agency's potential as an investment in the orderly future development of the greatest natural force known to man is incalculable. The founding of an Agency devoted to such ends is a landmark in the development of human institutions. Because the objective is far greater than the problems which must be faced, the Preparatory Commission puts forward this report in the confident belief that the Agency will grow into an institution worthy of the ideals expressed in its Statute.

17. The programme outlined in Chapter I of this report is a plan, to be considered by the Board of Governors, for the activities of the Agency in its first year and is the basis for the proposed staff establishment and the budget estimates set forth in Chapters II and III. The recommended programme in no way exhausts the potential scope of Agency action under its Statute, but any larger scale operations should be preceded by careful planning. Due to the unprecedented concentration of intellectual effort on the development of atomic energy, the growth of knowledge is so rapid that it is not possible to foresee accurately today all the opportunities of tomorrow. The Preparatory Commission believes that the proposed programme provides a realistic basis for the initial activities of the Agency and will provide a sound framework for future development as the Agency acquires experience and adds to its resources.

CHAPTER I

INITIAL PROGRAMME OF THE AGENCY

18. This chapter is divided into sections which correspond to the major functions of the Agency as outlined in Article III of the Statute. The extent to which these functions overlap is taken into account in the proposed staff establishment set forth in Chapter II where the necessary adjustments are made.

GUIDING PRINCIPLES

19. The general principles which should, in accordance with the Statute, determine the approach of the Agency to the implementation of this programme are the following:

(*a*) Assistance provided by the Agency to Member States will be given in accordance with all relevant provisions of the Statute, and in particular with Article III.C thereof, and should be directly related to the particular problems and specific needs of Member States and regions. To this end the Agency should maintain close touch with its Members concerning their local and regional problems. Except for assistance generally available to all Members, the Agency should give assistance to a Member State or to a group of Members only on request of the recipient and on terms to be agreed with the Agency.

(*b*) All arrangements by the Agency for the exchange of personnel between Member States including secondments, visits of experts, fellowships and scholarships, should be made in the first instance through governmental channels, and there should be, as far as possible, uniformity in administrative and financial arrangements.

(*c*) In view of the broad international scope of its activities, the Agency should seek to exercise, through its activities, a co-ordinating effect and to discourage undesirable duplication of effort in the development of the peaceful uses of atomic energy.

(*d*) The Agency should make the maximum use of the facilities available to it in Member States, particularly in its early years.

(e) The Agency should prepare a long term operational plan for providing assistance in the peaceful uses of atomic energy to its Member States in the under-developed areas. This plan should cover, in a balanced manner, all the Agency's fields of activities and should be completed for consideration by the Agency in 1959.

ENCOURAGING AND ASSISTING RESEARCH

20. The function of the Agency in encouraging and assisting research is outlined in Article III.A.1 and 2 of the Statute in which the Agency is authorized:

> "To encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world; and, if requested to do so, to act as an intermediary for the purposes of securing the performance of services or the supplying of materials, equipment, or facilities by one member of the Agency for another; and to perform any operation or service useful in research on, or development or practical application of, atomic energy for peaceful purposes;
>
> "To make provision, in accordance with this Statute, for materials, services, equipment, and facilities to meet the needs of research on, and development and practical application of, atomic energy for peaceful purposes, including the production of electric power, with due consideration for the needs of the under-developed areas of the world."

21. In determining its initial programme the Agency must take account of the fact that some of its Members have hitherto been unable, because of shortage of trained personnel or insufficiency of other resources, to develop adequate programmes for research in the peaceful uses of atomic energy. It must accordingly assist its Members to acquire or develop techniques of research which have already been evolved elsewhere and to apply existing or new research techniques to their specific problems. The application of radioisotopes and radiation sources to such problems will be of particular importance.

22. Time will however be required for an adequate evaluation of the research problems of many Member States. In its first year the Agency should therefore concentrate on assisting Members to plan programmes of research or to develop existing programmes, in particular by procuring personnel, arranging training or in helping to obtain facilities which they require.

23. The Agency should also take steps to facilitate access by its Members to published information on nuclear research which they need. It should be noted in this connexion that the Agency has a statutory responsibility to inform Member States of the results of nuclear research carried out with its assistance.

24. In addition to the assistance which the Agency can render directly to Member States it will have an important role to play in research programmes which require the collaboration of a large part of its membership

on a regional or world-wide basis. For example projects might be undertaken in which different tasks were accepted by individual Member States or in which a number of Members carried out similar scientific observations under the supervision of the Agency; in both cases the Agency would be responsible for the central pooling and analysis of results. Such projects, however, require careful preparation and could not be embarked upon immediately by the Agency: nevertheless in its first year the Agency could usefully identify future projects and begin to plan them.

25. The Agency's statutory functions, particularly with regard to health and safety, waste disposal, and safeguards may require it to undertake research on its own behalf. If in the first year the Agency does not acquire laboratory facilities, it may have to contract out such research. It may, however, become evident that there are subjects of research in which the Agency can make a unique contribution which would justify an extensive research programme carried out within its own facilities.

In the light of these considerations, the Preparatory Commission recommends the following programme:

26. *Initial assistance to Member States.* The Agency should, on request, assist Member States to determine their needs for research in the field of peaceful uses of atomic energy. In its early years the Agency should give priority to the use of radioisotopes and radiation sources as a research tool for the solution of certain problems of its less developed Members.

27. *Assistance to national research programmes.* At the request of Member States, the Agency should provide advice and assistance in the establishment or development of national research programmes in the peaceful uses of atomic energy. This assistance should include the securing of services of expert consultants and of scientific administrators, and also, where appropriate, assistance in procuring equipment and supplies. To perform this function, the Agency should keep itself fully informed about national and international research organizations from which assistance and advice can be obtained and should maintain close liaison with such organizations. It should also keep on record comprehensive information about national and international libraries on the peaceful uses of atomic energy.

28. *Dissemination of information.* The Agency should be closely familiar with the various research programmes on the peaceful uses of atomic energy which are in progress in Member States or being carried out through international organizations or in international institutes of research, such as the European Organization for Nuclear Research (CERN), the Joint Institute for Nuclear Research, the institute for theoretical studies of nuclear research of the Scandinavian countries. Such information should be made available, on request, to Member States. In addition, the Agency should, when necessary, direct inquiries from Member States on research matters to the most appropriate sources of information. The information available on research programmes should be utilized by the Agency in giving such

advice or assistance as may be desirable with a view to encouraging co-ordination of research, the possible initiation of new research or further development of existing research work.

29. *International research programmes in the peaceful uses of atomic energy.* The Agency should develop, in collaboration with national or regional organizations, plans for co-ordinating research programmes of a specifically international character where uniformity of measurement, wide geographical participation and a central pooling of results are required. Possible programmes might include studies related to disposal of radioactive wastes and the measurement of radioactive background. The precise method for implementing such programmes will have to be decided in each individual case.

30. *Research in support of statutory functions.* The Agency should itself undertake research programmes in connexion with its statutory functions, such as waste disposal, health and safety, and methodology of safeguards and should also encourage such work in Member States.

RADIOISOTOPES AND RADIATION SOURCES

31. Radioisotopes and radiation sources will be important in the assistance given to Member States under Article III of the Statute. For some years radioisotopes and radiation sources have found a ready use as tools for scientific research, and their application to such activities as agriculture, industry and medicine is now steadily increasing. These applications can yield great economic and social benefits, but relatively few countries have as yet been able to take full advantage of the potentialities that radioisotopes and radiation sources offer. The Agency may accordingly be able to make its greatest immediate contribution to the welfare of many of its Members by assisting them to acquire the knowledge and skills needed to make full use of radioisotopes and radiation sources.

32. In seeking to take advantage of the potentialities of radioisotopes and radiation sources, Member States are likely to request different kinds of services from the Agency. In many cases they will first need comprehensive information on the various uses of radioisotopes and radiation sources. Next they may well require technical assistance to help them plan such uses for the solution of their particular problems. Certain Members may also need the Agency's help in procuring their requirements of radioisotopes, labelled compounds and radiation sources, and in establishing laboratories and other facilities. In providing services of this kind, the Agency should bear in mind that it is within the competence of more than one existing international organization, such as the Food and Agriculture Organization and the World Health Organization to promote the use of radioisotopes and radiation sources for specific purposes; but the special position and responsibilities that the Agency will have by virtue of its Statute indicate that it should take the initiative in co-ordinating international efforts in this field.

33. Apart from the Agency's obligations to provide Members with assistance of a general character to develop the uses of radioisotopes and radia-

tion sources, there are several more specialized activities on which it could usefully embark at an early date.

34. In order to achieve the necessary degree of comparability in the experimental data on the use of radioisotopes and radiation sources obtained by workers in different parts of the world, it is essential that the measuring equipment used should be correctly calibrated and methods of measurement standardized. To this end the Agency could perform a valuable service by assisting Members to obtain standardized radioactive samples, by furthering the adoption of standard procedures for calibrating measuring instruments and by providing advice on methods of measurement.

35. The transport of radioisotopes and radiation sources has brought to light many problems and involves the need for uniform packaging and shipping regulations to avoid over-exposure of persons or radiosensitive film. The Agency may find it desirable to study these problems in relation to questions of international transport in consultation with other international organizations concerned, such as the United Nations and the International Civil Aviation Organization. The transport of short-lived radioisotopes gives rise to additional problems because of the need to ensure that they are transported and distributed without any delay.

36. The production of some isotopes and more particularly of many labelled compounds is an undertaking of great technical complexity. The Agency will be in a position to make additional use of the information on radioisotopes which its Members provide by taking steps to promote the co-ordination of research into and production of materials of this type with a view to avoiding any unnecessary duplication of effort.

In the light of these considerations, the Preparatory Commission recommends the following programme:

37. *Collection and dissemination of information.* The Agency should maintain an inventory of information to be available, on request, to its Members. This information should include:

(*a*) Sources of supply and nomenclature of and procedures for obtaining radioisotopes, as well as prices in so far as they are available;

(*b*) Methods and techniques of working with radioisotopes and, where such information does not fall within the special competence of a particular specialized agency, results of research in this field, and

(*c*) Sources of literature and of other information on research, development and practical application of radioisotopes and radiation sources.

38. *Technical assistance.* The Agency should, on request, provide technical assistance to its Members to promote the solution of specific local problems by the use of radioisotopes and radiation sources. This technical assistance should, where appropriate, include:

(*a*) Information concerning consultants available to assist its Members;

(*b*) Procurement of the services of consultants individually or teams to assist Member States in, for example, the study of local problems and the determination of their requirements for radioisotopes, labelled compounds and radiation sources;

(*c*) Assistance in the procurement of the requirements of Member States for radioisotopes, labelled compounds and radiation sources;

(*d*) Assistance in the establishment of national laboratories and facilities for the use of radioisotopes and radiation sources, including assistance in the procurement of equipment and in the development of research methods; and

(*e*) Assistance in arranging for personnel from Member States to study in facilities of other Member States.

39. *Standardization and calibration.* The Agency should, in consultation with other international organizations concerned, take measures for the preparation and distribution of standardized radioactive samples and formulate recommendations for the calibration of equipment and for appropriate methods of measurement.

40. *International transport.* The Agency should study, in consultation with other international organizations concerned, take measures for the international transport of radioisotopes, particularly of short-lived radioisotopes.

41. *Co-ordination.* The Agency, on the basis of the information available to it, should encourage research on, and the application of special radioisotopes for the solution of particular problems and should endeavour to prevent undesirable duplication in this field. The Agency should have a primary responsibility for the co-ordination of international efforts for the use and development of radioisotopes for peaceful purposes, although other international organizations will doubtless continue to implement their programmes in fields in which radioisotopes are an incidental research tool.

Reactor programme

42. The function of the Agency in promoting the development of nuclear reactors for peaceful purposes is specifically set forth in Article III A.2 of the Statute, in which the Agency is authorized:

> "To make provision, in accordance with this Statute, for materials, services, equipment, and facilities to meet the needs of research on, and development and practical application of, atomic energy for peaceful purposes, including the production of electric power, with due consideration for the needs of the under-developed areas of the world."

Article XI *(Agency projects)* also has a direct bearing on reactors as have paragraphs A.1, A.5, and A.6 of Article III *(Functions)*, Article IX *(Supplying of Materials)* and Article XII *(Agency safeguards)*.

43. It is widely expected that, in the long run, the development of reactors, and in particular of power reactors, will be the most important peaceful application of atomic energy, and that the Agency's assistance to its Members in this field may in time become the most extensive of its activities. Even before this stage is reached, Member States may look to the Agency's reactor programmes to enable them to acquire knowledge of the operation of reactors and facilities for specialized training, to act as a stimulus to

the development of auxiliary industries which are essential for the servicing of power reactors and, eventually, to supply limited amounts of electric power. There are, however, important limitations to the initial scope of the Agency's reactor programme. On the basis of strict current economics, and considering the existing types of power reactors, nuclear power will first be competitive on a large scale with conventional sources of electric power in a relatively small number of Member States which are highly industrialized and densely populated, have high conventional fuel costs and in which electricity supply is fed into distribution grids permitting continuous full load operation of power reactors. On a similar basis it is probable that medium-sized power reactors will provide electricity at competitive rates for the needs of industrially less-developed countries only at a somewhat later date except in certain limited locations. Furthermore the Agency cannot itself finance reactor projects, and the outside sources of finance at the disposal of its Members are limited. The Agency's reactor programme must reflect a balance between these technical and economic factors and the interest which Member States have displayed in developing atomic power at an early date.

44. The Agency's activities, from the first year onwards, will include the provision of information and advice to its Members on the feasibility of nuclear power programmes within their territories and on general aspects of such programmes. The Agency is also required by the Statute to consider each specific reactor project submitted to it and to evaluate the project before rendering assistance.

45. In addition to these operations in the reactor field, it would be desirable for the Agency to take special steps in the first years to encourage and assist a special programme of reactor building. This programme would have as its object the construction of a limited number of reactors, taking into account the need for balanced development of the various regions and the availability of financial resources.

46. Some time must inevitably elapse before any reactors have been constructed with the assistance of the Agency, and this may in the initial period be an additional limitation to the training and research facilities made available to it. It would contribute significantly to the Agency's programmes if Members were, from the start, to place training and research facilities in existing reactors at the Agency's disposal.

47. The Agency's initial activities will consist largely of surveys, provision of technical advice, exchange of information, evaluation and longer-term planning. The magnitude of these tasks will depend largely on the number of applications received and, to avoid possibly uneconomic employment of personnel, maximum recourse should be had to panels and teams of specialist consultants.

In the light of these considerations, the Preparatory Commission recommends the following programme:

48. *Collection and dissemination of information.* The Agency should promote the exchange of information on reactor technology. To this end,

the Agency should, as far as practicable, collect up-to-date information in the following fields, to be supplied on request to its Members:

(*a*) Technological developments in the reactor field and related economic factors, such as relative power costs, and local and regional economic conditions affecting reactor construction;

(*b*) Reactor types; and

(*c*) Available training and irradiation facilities.

49. *Technical assistance.*

(*a*) The Agency should be in a position to provide to its Members, on request, technical advice on and assistance with reactor programmes, covering both research and power reactors. Such advice should, where appropriate, include evaluation of local conditions and requirements. Subject to its statutory limitations, the Agency should be in a position to provide advice on all major aspects of proposed reactor projects including possible sources of materials and financing.

(*b*) The Agency should arrange with its Members for reactor and irradiation facilities to be made available for the purpose of providing training, knowledge of reactor technology and opportunities for research and experiment to students and experts from other Member States.

50. *Requests for reactor projects.* The Agency should, from the beginning, evaluate all requests for reactor projects which it may receive from its Members, in accordance with Articles XI and XII of the Statute.

51. *Special reactor programme.* In addition to reactor projects evaluated pursuant to paragraph 50, the Agency should take appropriate steps to assist and encourage a programme of reactor building for purposes of training, research and operational experience, the testing of materials and the production of power. Consideration should also be given to the associated effect such a programme might have on the development of auxiliary industries to service these reactors. Such a programme might consist of the building of a small number of medium-size reactors of types and at locations to be determined by the Board of Governors in consultation with interested Member States, with a view to giving the maximum benefit to the largest possible number of its Members. Where possible, such reactors should be linked to existing or projected research and training centres so that the maximum and most varied use can be made of the reactor facilities provided. The special programme suggested above must, of necessity, be limited in scope and there may therefore be need for the Agency to consider and determine certain criteria for priorities to be applied to its special programme.

Supply of materials and services

52. The Agency's functions and the procedures to be followed by Member States in regard to the supply of materials and services are dealt with in several articles of the Statute, of which the most important are Articles III, IX and X.

53. The scope of the Agency's operations and the degree to which it achieves the objectives of the Statute will obviously be affected by the quantities of special fissionable materials placed at its disposal and the extent to which its Members make use of them. In particular, the availability of such materials will have important implications for the Agency's activities in the reactor field and will have a bearing on the scope of its functions in regard to safeguards and on its activities in regard to health and safety and waste disposal. While indications have been given that special fissionable materials may be available to the Agency at an early date it is difficult to foresee the extent of the demand for them in the first year. It is nevertheless essential that the Agency should be able from the beginning to discharge its statutory responsibilities in this field. Similar considerations may be applicable to other materials and to services, equipment and facilities which may be made available to the Agency as well as to their supply by the Agency to Member States.

54. The Agency may also be called upon to assist its Members in securing services, materials, equipment and facilities other than those made available to the Agency. Where the item or items are available through commercial channels, it would, as a general rule, be inadvisable for the Agency to do more than provide Member States with information at its disposal on possible sources of supply. Certain items may, however, pose special problems of procurement and the Agency may deem it appropriate to take further steps in assisting a Member State to procure them. The Agency's functions in this regard would be determined by the number of requests for assistance received and the decision taken on each request.

In the light of these considerations, the Preparatory Commission recommends the following programme:

55. *Materials made available to the Agency.* The Agency should undertake to the extent necessary the following activities concerned with any materials made available to it under Article IX of the Statute:

(*a*) Arrangements in accordance with Articles IX and XIII of the Statute with the supplying Member States:

(*b*) Arrangements for the receipt and storage of such materials;

(*c*) Notification to Member States of the availability and characteristics of such materials; and

(*d*) Arrangements for the allocation and delivery of such materials to requesting Member States.

56. *Services, equipment and facilities made available to the Agency.* The Agency should undertake to the extent necessary the following activities concerned with any services, equipment and facilities made available to it under Article X of the Statute:

(*a*) Arrangements, in accordance with Article XIII of the Statute, with the supplying Member State:

(*b*) Notification to Member States of the availability and characteristics of such services, equipment and facilities; and

(*c*) Arrangements for the provision of such services, equipment and facilities to requesting Member States.

57. *Other materials, services, equipment and facilities.*

(*a*) The Agency should take such steps as it deems appropriate to assist, on request, Member States in securing services or materials, equipment or facilities not made available to the Agency and not readily available through commercial channels.

(*b*) The Agency should, on request, provide its Members with information on the sources of materials, services, equipment and facilities available through commercial channels.

EXCHANGE OF INFORMATION AND CONFERENCES

58. The functions of the Agency in promoting the exchange of scientific and technical information by various means are outlined in Article III.A.3 and, in more detail, in Article VIII of the Statute, which enjoins Members to make available information which, in their judgement, would be helpful to the Agency, and lays upon them the obligation to make available to the Agency all scientific information developed as a result of assistance extended by the Agency. The Agency in its turn is obliged to assemble and make available in accessible form such information, as well as to take positive steps to encourage the exchange among its Members of useful information relating to the nature and peaceful uses of atomic energy.

59. By virtue of its statutory responsibilities, its broad international character and the wide range of its activities, the Agency will be in a unique position to assemble and disseminate scientific and technical information on the peaceful uses of atomic energy and to encourage and facilitate exchange of information between its Members. This function is moreover one which the Agency can begin to discharge effectively from the first year. To perform it properly, the Agency will need to maintain close and active liaison with the governments of Member States and with appropriate institutions in Member States.

60. The Agency's programmes must take into account the fact that in certain Member States the function of publicizing new developments in nuclear science and technology and of preparing abstracts of new papers is already extensively performed by specialized publications and by national organizations. Because of language and other difficulties there is, however, an inadequate interchange between Member States of published scientific and technical papers and abstracts and this is especially true of scientific and technical papers published for official or semi-official use. The Agency can therefore perform several specific services in this field. It would be of particular value if the Agency were to facilitate the interchange of individual published papers which its Members may require and were to bring to their notice lists of titles of published official and semi-official scientific papers or any other scientific papers which it receives, and lists of titles of new abstracts, and to provide on request translations of such abstracts in any of its official languages.

61. The Agency is also required by the Statute to make available in accessible form information developed by Members as a result of its assistance. Since, at least initially, such information is unlikely to be developed in sufficient volume or with sufficient regularity to justify a periodical bulletin, it could most appropriately be published when necessary in specialized reports. There may also be considerable interest in specialized reports on certain technical projects carried out by the Agency and on the proceedings of conferences or symposia which it convenes.

62. There are in addition certain specific tasks indirectly related to technical information, which the Agency could usefully begin to undertake in its first year. The United Nations Educational, Scientific and Cultural Organization is engaged in developing and standardizing an international technical and scientific terminology, and the Agency will be able to assist it by encouraging development and standardization of the terminology of atomic energy in the various languages. UNESCO also operates a coupon system designed to facilitate the purchase of certain categories of scientific and technical books and equipment by persons who or institutions which cannot readily obtain foreign exchange for such purchases. The Agency may find that the introduction of a scheme on similar lines would be of value to its Members.

63. It is desirable that plans should be made to publicize the contribution which the Agency will make to the development of atomic energy for peaceful purposes as well as some of its other activities. This task could be most effectively performed if the Agency were to make arrangements for the distribution of information to the public from its headquarters and, in particular, to publish a periodical bulletin of a general character in the official languages of the Agency. In the interests of wider publicity, it may be desirable to publish this bulletin in languages other than the official languages.

64. The functions and authority conferred by the Statute make it desirable for the Agency to assume primary responsibility for the organization of international conferences and symposia on the peaceful uses of atomic energy. In determining its programme, however, the Agency should take account of the fact that, although such meetings have proved to be a valuable means of promoting the interchange of information on the peaceful uses of atomic energy and of facilitating contacts between scientists, the number of such meetings has greatly increased in recent years. As a result there appears to have been some unnecessary duplication of discussions and overlapping of topics, and it has become difficult for scientists in Member States to keep abreast of all meetings and to arrange participation in those of interest. It would, therefore, seem appropriate for the Agency to take the initiative in co-ordinating conferences and symposia on the peaceful uses of atomic energy sponsored by other international organizations and to disseminate information on the most important conferences and symposia convened by national or regional organizations.

65. The Agency's special position will also make it appropriate for it to participate in the second International Conference on the Peaceful Uses of

Atomic Energy to be held in September 1958 and possibly to convene such conferences of this kind as may subsequently be held.

In the light of these considerations, the Preparatory Commission recommends the following programme:

66. *Public information.*

(*a*) The Agency should make arrangements at its headquarters for supplying information on its activities to the public.

(*b*) The Agency should publish a periodical bulletin of a general character. It should consider the question of publishing this bulletin in languages other than the official languages.

67. *Scientific and technical information.* The Agency should have a scientific and technical information service which should:

(*a*) Maintain and index as complete a collection as possible of new abstracts of scientific articles on the peaceful uses of atomic energy published throughout the world, regularly circulate to its Members a list in the official languages of new abstracts received, and provide, on request, translations of such abstracts in specified fields in any of the official languages;

(*b*) Indicate to Member States sources of abstracts and of new scientific abstracting journals;

(*c*) Request Members to supply, without charge to the Agency, at least one copy of published official scientific papers and, where possible, copies of the relevant abstracts, produced in their countries covering the field of peaceful uses of atomic energy, and request universities and other institutions to supply copies of similar papers whenever possible;

(*d*) Maintain a bibliographical and reference service for Member States on peaceful uses of atomic energy, covering scientific papers received, and in particular providing as comprehensive a coverage as possible of official and semi-official publications, and regularly circulate to Members a list in the official languages of the titles and sources of such publications;

(*e*) Encourage the development and standardization of technical and scientific terminology of atomic energy in the various languages;

(*f*) Publish from time to time, on a selective basis, specialized reports covering research carried out under the auspices of the Agency, other project reports and the proceedings of symposia or expert conferences convened by it;

(*g*) Maintain a technical reference library on peaceful uses of atomic energy at the headquarters of the Agency;

(*h*) Maintain a register of films and exhibits on the peaceful uses of atomic energy;

(*i*) Maintain active liaison with its Members to further the above objectives and to encourage the exchange of scientific information on the peaceful uses of atomic energy; and

(*j*) Study the question of establishing a system of coupons to overcome any difficulty a Member State may have in expeditiously obtaining foreign exchange to purchase publications in any other Member States.

68. *Conferences.* The Agency should prepare a programme of conferences on various aspects of peaceful uses of atomic energy, both to promote the exchange of information and to facilitate personal contacts between scientists. It should from the start maintain a register of international and, where appropriate, national conferences dealing with the peaceful uses of atomic energy. The Agency should participate to an appropriate extent in the organization of the Second International Conference on the Peaceful Uses of Atomic Energy to be held in September 1958. It should consider whether subsequent conferences of this kind, if held, should be convened by the Agency itself.

EXCHANGE AND TRAINING OF SCIENTISTS AND EXPERTS

69. Under Article III.A.4 of the Statute the Agency is authorized:

> "To encourage the exchange and training of scientists and experts in the field of peaceful uses of atomic energy".

70. Assistance to Member States in respect of exchange and training should be a major activity of the Agency in its initial years because of the acute shortage of persons with specialized training and qualifications in nuclear technology for peaceful purposes, particularly in under-developed areas of the world. This shortage is often a more serious limiting factor to the development of atomic energy than inadequacies of funds or equipment. Since the Agency's resources will necessarily be limited, and in order to co-ordinate its activities with those of other international organizations, it is desirable that as a general rule the Agency should give assistance only in the field of specialized technical or scientific training and exchange in the peaceful uses of atomic energy. The exchange of scientists will be a valuable complement to the exchange of information, since it will promote personal contacts between scientists and also permit the practical comparison of different scientific methods. For the purposes of re-training existing national specialists in new techniques for the utilization of atomic energy for peaceful purposes, the Agency should encourage the organization of refresher courses in the scientific and educational institutions of its Members which are most advanced scientifically and technically.

71. In the first instance, many Member States will require advisory assistance in determining their exchange and training needs and in organizing or expanding their training programmes for nuclear scientists and engineers as well as for specialized technicians.

72. Some time must inevitably elapse before any Agency project has developed to the point at which it can provide training facilities to Member States. This fact and the shortage of adequate training facilities and qualified instructors in the less developed Member States indicates that their needs could be met most effectively in the initial period if Member States more advanced in the peaceful uses of atomic energy were to open their existing training facilities to other Members to the greatest extent possible.

73. A number of Member States may require financial support on a limited scale in making arrangements for the training of their nationals

abroad. Support could be provided in various ways, such as the grant of fellowships by those Members that are advanced in the peaceful uses of atomic energy; the Agency may also consider the desirability of seeking participation in the United Nations Expanded Programme of Technical Assistance. The Agency should in any event organize and help to finance a limited fellowship programme of its own.

74. In due course regional co-operation between Members to establish joint training centres could provide a valuable supplement to other training facilities. The organization of such regional training centres would require co-ordination with other organizations engaged in similar activities in the region concerned, and with the Agency's own reactor programme.

In the light of these considerations, the Preparatory Commission recommends the following programme:

75. *Advice to Member States and services of consultants.* The Agency should provide advice to its Members on their training programmes, including advice on their requirements for staff and other pertinent matters, and, where necessary, should assist them in securing the services of the experts or consultants required.

76. *Survey of available facilities.* The Agency should maintain an up-to-date list of training institutions and facilities available in Member States.

77. *Determination of requirements of under-developed countries.* The Agency should, at the request of a Member, study its requirements for trained personnel and should, as far as practicable, devise methods to meet these requirements.

78. *Methods of exchange and training.* The Agency should assist Member States, in accordance with their needs, to make arrangements whereby scientific and technical personnel and students of one Member would have access to instruction and facilities available in other Member States. This assistance should include the provision of fellowships in the field of peaceful uses of atomic energy, and should take into account existing international arrangements for technical assistance. In administering this fellowship and exchange programme, the operating methods of the United Nations Expanded Programme of Technical Assistance may usefully be followed as far as they are appropriate to the programmes of the Agency operated under its own auspices. The question of participation in the Expanded Programme should be considered by the Board of Governors at an early date. The Agency should also, in co-operation with other international organizations concerned, such as UNESCO, assist its Members in the exchange of textbooks, training programmes and other educational materials.

79. *Regional training facilities.* The Agency should study the need for establishing co-operatively financed regional training centres, bearing in mind the particular requirements of the countries of the region, the availability of existing facilities and the need for co-ordination with organizations engaged in similar activities in the region concerned. The Agency

should, on the request of interested Member States, consider taking an active part in assisting them to plan, establish and/or operate such centres.

SAFEGUARDS

80. Article III.A.5 of the Statute provides that the Agency is authorized:

> "To establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities, and information made available by the Agency or at its request or under its supervision or control are not used in such a way as to further any military purpose; and to apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement, or, at the request of a State, to any of that State's activities in the field of atomic energy".

In connexion with its safeguards function, Article III.B.1 of the Statute may be particularly relevant especially in relation to the policies of the United Nations for furthering the establishment of safeguarded world-wide disarmament. Article XII spells out in considerable detail the rights and responsibilities which the Agency shall have with respect to Agency projects or other arrangements where the Agency is requested by the parties concerned to apply safeguards. Article IX.H. and I imposes certain requirements upon the Agency with respect to the storage, protection and verification of materials, including special fissionable materials, in its possession.

81. The concept on which the Agency's safeguard system is based is that of ensuring accountability for all source and special fissionable materials involved in Agency projects. To ensure such accountability, the Agency is empowered to examine and approve to the relevant extent the design of projects submitted to it, to call for pertinent information, to make inspections and to apply a combination of material accounting and physical security measures. The criteria which the Agency is to apply in approving designs are defined in the Statute, and the Statute makes it clear that safeguard procedures shall be adapted to the specific character of each individual project and to the degree of potential risk of material diversion.

82. In the first year the tasks which the Agency will be required to carry out in regard to safeguards are likely to be confined to the initial examination of the design of such projects as are submitted to it. The Agency may also be involved in arrangements for the transport and storage of special fissionable materials and source materials and possibly, if requests to this effect are received from Member States during the first year, also in the application of safeguards to bilateral and multilateral arrangements. In order to avoid any unnecessary delay which might prevent the Agency from assisting Member States, it is essential that the Agency should be prepared at an early date to discharge its statutory responsibilities.

83. The Agency should therefore from the start study and develop appropriate methods and policies for the implementation of safeguards. As its activities expand, it will be necessary to develop safeguard procedures and appropriate policies not only for the handling and storage of materials and the initial approval of designs but also for the safeguarding of materials in Agency projects and for the treatment of such materials after

irradiation. The Agency should bear in mind that the nature of inspection required to ensure observance of safeguards is such that it may in practice be combined to some extent with procedures to ensure observance of safety measures.

In the light of these considerations, the Preparatory Commission recommends the following programme:

84. *Implementation of the Statute.* The Agency should, from the start, study and develop appropriate methods and policies for the implementation of the safeguards provisions of the Statute. In developing these methods and policies, particular attention should be given to the following:

(*a*) The safeguard procedures should keep pace with the development of the Agency's activities, starting with problems related to the transport and storage of source and special fissionable materials and extending to the use of these materials in Agency-sponsored projects and to their subsequent treatment;

(*b*) The safeguard procedures should be adapted to the specific character of each individual project and the degree of potential risk of material diversion. The safeguards should ensure adequate accountability in accordance with the statutory provisions, including both physical security and material accountability measures to the extent required; and

(*c*) The Agency should make studies and examine work already done with respect to safeguards by various national and international organizations.

85. *Association of safeguards with health and safety.* Where possible, it would be convenient in practice to associate inspection under the safeguards functions with inspection under the health and safety functions of the Agency.

HEALTH AND SAFETY AND WASTE DISPOSAL

86. Article III.A.6 of the Statute provides that the Agency is authorized:

> "To establish or adopt, in consultation and, where appropriate, in collaboration with the competent organs of the United Nations and with the specialized agencies concerned, standards of safety for protection of health and minimization of danger to life and property (including such standards for labour conditions), and to provide for the application of these standards to its own operations as well as to the operations making use of materials, services, equipment, facilities, and information made available by the Agency or at its request or under its control or supervision; and to provide for the application of these standards, at the request of the parties, to operations under any bilateral or multilateral arrangement, or, at the request of a State, to any of that State's activities in the field of atomic energy".

87. Article XI.E.3 of the Statute requires that, before approving a project submitted to it, the Board of Governors shall give due consideration to the "adequacy of proposed health and safety standards for handling and storing

materials and for operating facilities", and Article XI.F.2 provides that the agreement to be entered into by the Agency with the Member or group of Members submitting a project which has been approved by the Agency, shall include provisions which will ensure that any physical transfer of fissionable materials will be done in such a way as to meet applicable health and safety standards.

88. In Article XII the rights and responsibilities of the Agency with respect to its projects and to arrangements to which it is requested to apply safeguards are specified. To the extent relevant to the project or arrangement in question, Article XII.A.1 provides that the Agency shall examine the design and approve it only if it complies with applicable health and safety standards. Article XII.A.2 provides that the Agency may require the observance of any health and safety measures prescribed by the Agency, and Article XII.A.6 provides that the Agency's inspectors shall be entitled to "determine whether there is compliance . . . with the health and safety measures referred to in sub-paragraph A.2 of this article, and with any other conditions prescribed in the agreement between the Agency and the State or States concerned". Article XII.B further provides that the Agency's staff of inspectors "shall have the responsibility of examining all operations conducted by the Agency itself to determine whether the Agency is complying with the health and safety measures prescribed by it for application to projects subject to its approval, supervision or control".

89. In considering the Agency's activities in the field of health and safety, it should be borne in mind that there are three essential aspects of health protection in nuclear facilities. Firstly, standards of maximum permissible radiation exposure must be established as a basis for all safety regulations and procedures. In establishing or adopting such standards the Agency may wish to give careful consideration to the work of the International Commission on Radiological Protection which has evolved standards which enjoy wide recognition. Secondly, on the basis of maximum exposure standards, operating regulations must be established and codes of design must be evolved to protect the health and safety of workers in nuclear facilities. In this connexion the Agency may wish to take account of the work done by the International Labour Organisation regarding health and safety standards for the industrial use of X-rays and radioactive substances. Thirdly, the siting of an atomic energy facility must be such as to minimize the danger to health and safety of persons and property in the environment or vicinity. The potential hazards can be evaluated only in relation to each facility and it is not at present possible to formulate criteria or recommendations of general validity. It will be essentially within the Agency's competence to undertake and co-ordinate international activities in this field.

90. The fact that many Member States are in the process of studying or preparing legislation on the health and safety aspects of nuclear technology makes it important that the Agency should as soon as possible adopt or establish standards which might be used as a guide by governments and thus exercise a harmonizing influence.

91. In addition to its statutory task of establishing or adopting health and safety standards for operations in which it is involved, there are certain specific problems which the Agency could usefully begin to study in its first year and a number of services which it could provide to its Members.

92. Attention has already been drawn in paragraph 35 to the need for uniform standards and procedures to ensure safe and expeditious international transport of radioactive materials and to facilitate acceptance of such materials by sea and air carriers. The Agency could also begin the study of problems posed by the disposal of radioactive wastes at sea and on land and the discharge of radioactive effluents into streams and the atmosphere. These problems arise at present only in certain States or within limited areas but they will increase with the development and spread of nuclear power, and international co-operation will be essential to minimize contamination. Problems of waste disposal will also vary according to local circumstances and may be more acute in certain States which do not have access to the sea.

93. The Agency may wish to take steps to ensure comparable chemical and radiometric procedures in the health and safety field. For this purpose the Agency might provide samples and services of the type described in paragraph 34.

94. Member States have only recently begun to consider questions of legal liability and insurance posed by the establishment of nuclear facilities. The disposal of radioactive wastes may also give rise to international legal questions. The Agency could provide a useful service by offering opportunities for the discussion of these problems.

In the light of these considerations, the Preparatory Commission recommends the following programme:

95. *Evaluation of projects.* The Agency should evaluate in detail the specific hazards of each project submitted to it and should make recommendations on siting, design, construction, operation and maintenance in accordance with the provisions of Articles XI.E.3 and XII.A.1 of the Statute.

96. *Application of standards.* The Agency should, as soon as possible, establish or adopt standards of safety and health for operations under its auspices in accordance with Article III.A.6 of the Statute.

97. *Co-ordination.* The Agency should, at an early date, take the initiative in the international co-ordination of the activities of all bodies concerned with health and safety hazards in the field of peaceful uses of atomic energy and should encourage the co-ordination of international research with a view to promoting a better understanding of radiological and other hazards and the means for their control.

98. *Transport of radioactive materials.* The Agency should undertake studies with a view to the establishment of regulations relating to the international transportation of radioactive materials. In particular the Agency should obtain information on, and consider the formulation of regulations

governing the international transport of radioactive materials and the international transport of radioactive waste.

99. *Waste disposal.* The Agency should undertake studies of and consider the formulation of regulations governing:

(*a*) Waste disposal at sea and elsewhere, having regard to the specific requirements of and conditions in individual Member States, such as distance from the sea and lack of access to the sea; and

(*b*) Discharge of effluents in streams and in the atmosphere. The Agency should ensure the adoption of standards for waste disposal in projects assisted by it and should apply such standards to its own facilities. It should, on request, make arrangements for carrying out tasks related to waste disposal such as the monitoring of soils, water and foods, and the analysis of waste.

100. *Legal problems.* The Agency should afford an opportunity for the consideration of international action with respect to legal liability, insurance and international legal aspects of waste disposal.

ACQUISITION OF FACILITIES, PLANT AND EQUIPMENT

101. Article III.A.7 provides that the Agency is authorized:

> "to acquire or establish any facilities, plant and equipment useful in carrying out its authorized functions, whenever the facilities, plant and equipment otherwise available to it in the area concerned are inadequate or available only on terms it deems unsatisfactory."

In addition, Article IX.I provides:

> "The Agency shall as soon as practicable establish or acquire such of the following as may be necessary:
>
> "1. Plant, equipment, and facilities for the receipt, storage, and issue of materials
>
> ". . .
>
> "4. Control laboratories for the analysis and verification of materials received;".

102. In so far as these provisions relate to the Agency's needs for storage facilities for special fissionable or source materials, it would be premature at this stage to make definite proposals regarding the timing of the steps the Agency will have to take to give effect to them.

103. The Agency will require laboratory facilities not only to fulfil its obligations to analyse and verify special fissionable and source materials, but also to support the execution of its statutory functions connected with health and safety and waste disposal. At the start of its operations the only course open to the Agency will be to contract out all its laboratory work, but the nature of some of this work will make it desirable for the Agency to carry it out in its own facilities. The question of whether to acquire or establish its own service laboratory will be one for the Agency to consider at an early date. In considering the matter the Agency should also take into account the extent of its needs for laboratory facilities to support its research programmes. In any event it would seem advisable to make such provision for laboratory facilities in the financial recommenda-

tions for the Agency's first year as would avoid any delay in acquisition or construction, should it be decided that such facilities are in fact required.

In the light of these considerations, the Preparatory Commission recommends the following programme:

104. *Laboratory facilities.* The Agency should examine at an early date the need for the establishment of laboratory facilities at its headquarters, taking into account:

(*a*) The Agency's needs for laboratory work in support of its statutory functions including those functions relating to health and safety and safeguards;

(*b*) The Agency's needs for service laboratory facilities and laboratory facilities in connexion with general problems of research; and

(*c*) The cost of such facilities and of maintaining a laboratory. the staff which would be required to operate such facilities and also the comparable cost of contracting out research.

After such an examination, the Agency should decide its future policy and either proceed forthwith with the establishment of laboratory facilities, or continue to contract out its requirements for laboratory work, or combine both methods.

CHAPTER II

STAFF ESTABLISHMENT OF THE AGENCY

General considerations

105. As a starting point for the determination of the staff requirements of the Agency the Commission endeavoured to ascertain the size and composition of the technical staff required to implement the programme recommended in Chapter I of this report. Upon this basis an assessment was made of the staff required to provide administrative services for the technical programme and for meetings of the General Conference and the Board of Governors. The Commission considers that while the technical staff is likely to expand in subsequent years, the scope and volume of the administrative work of the Agency is not likely to grow at the same rate; thus the expansion of the technical operations of the Agency is not likely to require a proportionate increase in the administrative staff.

106. In addition to the technical and administrative staff, provision is made for an Executive Office of the Director General, a Legal Division, an Economic and Technical Assistance Division and an Inspection Unit. In determining the size and composition of the Executive Office of the Director General it has been assumed that the Board of Governors will meet frequently; account has also been taken of the need to maintain close liaison with Member States and with the United Nations, and of the necessity for co-ordination of the Agency's activities with those of other international organizations. The recommendations concerning the Legal Division reflect the fact that the Agency will, from the start, require competent legal advice and that in particular, the conclusion of agreements with Member States for the provision of materials, services, equipment and facilities will involve the preparation of special legal instruments in a field in which there is little international experience or precedent. The Agency will also need an Economic and Technical Assistance Division to undertake general economic evaluation of its technical projects and to ensure that the Agency keeps abreast of the relatively rapid development of and change in economic factors affecting the production of nuclear power as well as of studies made by other organizations primarily concerned with economic questions.

107. As a general guide to the grading of posts, the Preparatory Commission recommends the adoption by the Agency of the United Nations

salary scales and system of classification as approved by the General Assembly in 1956. This question as well as that of conditions of service is dealt with again in Chapter III.

108. The recommendations are intended to provide for a cadre of staff which will be expanded in subsequent years as the activities of the Agency develop; this is particularly true of the technical staff which is discussed in more detail below. Inasmuch as the initial staff will have to assume important planning functions and set the course for future activities of the Agency, it is relatively highly graded, despite the fact that some of the units in the staff structure will be small for the first year. This should ensure that it will be possible to recruit senior personnel of a high standard of competence. The Heads of Divisions are shown at the Director level, that is to say, their posts may be either D-1 or D-2 on the United Nations scale. The actual grading of individual officials in these and other posts will depend upon the experience and personal qualifications of the candidates that can be secured. For budgetary purposes, an arbitrary average salary has been assumed for the Directors' posts.

109. The staff structure of the Agency and the size and composition of individual divisions will doubtless have to be adjusted as the operational needs of the Agency develop. Wide discretion should therefore be allowed to the directing authorities of the Agency to adjust the structure of the Agency and to make appropriate transfers from one unit to another, and the suggested allocation of staff to individual divisions must be regarded as little more than a tentative initial guide. In particular the general service staff should be considered as interchangeable between divisions. The total estimates of staff and numbers of posts recommended in each grade are, however, considered to give a reasonably sound indication of the establishment as a whole and thus to provide an adequate basis for estimating the total staff costs of the Agency in its first year.

Technical staff

110. In its recommendations concerning the administrative staff of the organization, the Preparatory Commission has been guided to a certain extent by the precedents of other international organizations from which the Agency will not differ fundamentally in administrative organization. The Agency's technical organization will, however, be unique and the Commission's recommendations are therefore explained more fully in the paragraphs that follow.

111. After careful study the Preparatory Commission has come to the conclusion that the Agency's initial programme can be implemented most effectively by establishing a separate division or unit to carry out each major function set forth as a section heading in Chapter I. No separate division is, however, provided for the acquisition by the Agency of facilities, plant and equipment. Since the only item under this heading which the Agency may acquire in the first year would consist of laboratory facilities, it has been provided that these should be a responsibility of the Divi-

sion of Research, Research Contracts and Laboratories. In certain cases, moreover, one or more of the programme recommendations set forth under a section heading in Chapter I can be carried out more effectively by a technical or administrative unit other than that which corresponds with the section heading. In such cases an appropriate cross reference has been made as a note to the relevant staff proposal.

112. While all technical divisions should work in close collaboration with each other, the responsibilities of the Division of Research, Research Contracts and Laboratories, the Division of Scientific and Technical Information and the Division of Technical Supplies are particularly closely related to those of several other divisions. Thus, for example, the responsibilities of the Division of Research, Research Contracts and Laboratories will be those of co-ordinating the assistance which the Agency will give to meet the nuclear research needs of Member States and of co-ordinating research work of the Agency itself. Since requests for research assistance are likely to relate in most cases to the specific work of one or other of the technical divisions, the Division of Research, Research Contracts and Laboratories would normally look, in the first place, to the division concerned for specialist advice on the request. A convenient means of ensuring close co-ordination of the technical work of the Agency would be the establishment of a secretariat committee consisting of the heads of the divisions concerned.

113. The size of the staff recommended for each division for the first year should not be regarded as an indication of the ultimate scope and importance of the work of that division. This consideration applies particularly to the Division of Reactors, of which the work in the initial period will be largely of a preparatory character.

114. It is expected that the professional staff for the technical programme will consist for the most part of officials with scientific, engineering or other technical qualifications who have had general experience in their fields and who are also acquainted with the type of administrative and organizational questions with which the Agency will deal. The qualifications and experience required will, however, vary for each post. In certain posts it may be appropriate to employ persons whose training is administrative rather than technical; in others a high degree of scientific or technical qualifications may be required. It is moreover envisaged that a proportion of the posts in the technical divisions will be filled by scientists and technicians on fixed term secondment with a view to ensuring that the technical staff of the Agency remains in close and continuous contact with scientific work being carried out in Member States.

Scientific and technical advice

115. The Agency will be required to provide Member States with assistance on a great diversity of scientific and technical matters. For this reason and to ensure that it keeps pace with the rapid evolution of peaceful nuclear technology, the Agency should be able to call upon scientific and technical

assistance and advice from external sources. In addition to securing the services of individual consultants to carry out specific tasks, the Preparatory Commission considers that the Agency may require from time to time scientific advice on its plans and work. Such assistance could be secured, for instance, by the establishment of a standing scientific advisory council composed of nuclear scientists of international eminence serving in their individual capacity and not as representatives of their governments, and meeting periodically to provide advice on the Agency's technical programme. Another arrangement would be to convene, whenever the need arose, *ad hoc* panels of specialists to provide scientific advice on particular aspects of the Agency's programme. The Preparatory Commission considers that these and other methods of securing external scientific advice on the Agency's programmes should be carefully considered at an early date by the directing authorities of the Agency.

STAFF STRUCTURE

116. In the light of these considerations the Preparatory Commission recommends the staff establishment for the Agency set forth in paragraphs 117 to 159 below.

Executive Office of the Director General

117. *General responsibilities:*

To assist the Director General in the discharge of his functions;

To serve all meetings of the General Conference and of the Board of Governors;

To maintain liaison with Member States and international organizations, including non-governmental organizations; and

To carry out the Agency's public information programme and to maintain liaison with information media and the public.

118. *Staff:*

No.	*Post level*	*Notes*
1		Executive Assistant to the Director-General
1	P-3	Assistant
2	G.S.	
1	P-5	Secretariat of the General Conference and Board of Governors
2	P-4	
1	P-2	
4	G.S.	
1	D-1	External liaison and protocol
1	P-4	
2	G.S.	
1	D-1	Liaison at United Nations Headquarters
1	P-3	
2	G.S.	
1	P-5	Public relations and editing of a non-technical bulletin
1	P-3	
2	G.S.	
24	(12 Professional; 12 General Service)	

Legal Division

119. *General responsibilities:*

To advise the Director General on legal questions, to prepare draft treaty instruments, agreements, contracts and regulations and to undertake other legal work and studies required by the Agency.

120. *Staff:*

No	*Post level*	*Notes*
1	Director Level	Head of Division
1	P-5	
1	P-4	
1	P-3	
4	G.S.	
8	(4 Professional; 4 General Service)	

Economic and Technical Assistance Division

121. *General responsibilities:*

To provide the Director General with economic and financial advice in connexion with the Agency's technical operations and technical assistance programmes;

To undertake general economic evaluation of projects;

To undertake studies relating to the economic aspects of nuclear development, including the collection of relevant information and statistics; and

To assist in making arrangements to secure external financing for Agency projects.

122. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division
2	P-5	
1	P-4	Economists, statisticians
3	P-3	and financial experts
7	G.S.	
14	(7 Professional; 7 General Service)	

123. *Note.* Either the Head of the Division or a senior economist should be specially qualified to provide expert services in connexion with the financing of projects.

Inspection unit

124. *General responsibilities:*

To plan for the implementation of safeguards and health and safety standards.

125. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division
1	P-5	
2	P-4	Scientific inspectors
2	G.S.	
6	(4 Professional, 2 General Service)	

Division of Research, Research Contracts and Laboratories

126. *General responsibilities:*

To assist Member States in determining their needs for research and in establishing or developing their national research programmes for the peaceful uses of atomic energy:

To collect and disseminate information on research into the peaceful uses of atomic energy;

To make research contracts with outside organizations; and

To operate such laboratory facilities as the Agency may decide to set up.

127. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division: Familiarity with the broad field of peaceful nuclear research
6	P-5/P-3	Knowledge of the major peaceful nuclear research fields
4	G.S.	
11	(7 Professional; 4 General Service)	

128. *Note.* The functions of this Division will be closely interrelated with those of several other technical divisions—see paragraph 112.

Division of Isotopes

129. *General responsibilities:*

To collect and disseminate information on radioisotopes and radiation sources;

To provide Member States with technical assistance to promote the use of radioisotopes and radiation sources; and

To promote standardization of measurements related to the use of isotopes.

130. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division: Diversified knowledge of isotope applications
9	P-5	Knowledge of the principal uses of radioisotopes, e.g., in industry, medicine and health, biology, genetics and radiochemistry. At least one official should be a specialist in instrumentation
7	G.S.	
17	(10 Professional; 7 General Service)	

131. *Note.* This Division will assist the Division of Health and Safety and Waste Disposal in undertaking studies relating to the international transport of radioactive materials.

Division of Reactors

132. *General responsibilities:*

To provide advice and assistance to Member States in connexion with their reactor programmes;

To evaluate technically applications from Member States for reactor projects;

To encourage a special programme of reactor building; and

To collect and disseminate information on reactor design and technology.

133. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division: General knowledge of the technology and economics of different types of reactors
5	P-5	Specialists in neutronics, the chemical physics of reactors, the technology of reactor materials, reactor instrumentation and the industrial problems of reactor construction
4	P-2	Industrial draftsmen and computers
4	G.S.	
14	(10 Professional; 4 General Service)	

134. *Note.* The economic evaluation of reactor projects and the collection and dissemination of information on the economic aspects of nuclear power will be primarily the responsibility of the Economic and Technical Assistance Division, which will also be closely associated with the Agency's work in connexion with a special programme of reactor building. Arrangements for training and reactor and irradiation facilities made available by Member States will be a joint responsibility of the Division of Exchange and Training of Scientists and Technicians and the Division of Reactors.

Division of Scientific and Technical Information

135. *General responsibilities:*

To collect, disseminate and generally promote the exchange of technical information on the peaceful uses of atomic energy, and to maintain liaison with Member States concerning the exchange of information;

To organize and co-ordinate conferences and symposia on the peaceful uses of atomic energy;

To edit and publish special scientific reports on the proceedings of conferences and symposia; and

To organize and maintain a scientific reference library.

136. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division
1	G.S.	
	Library and Abstracts Unit	
1	P-5	Head of Unit: Librarian
2	P-3	Assistant librarians
6	P-4	Specialists in scientific abstracting and scientific translating

No.	*Post level*	*Notes*
16	G.S.	
	General Information, Conference and Editorial Unit	
2	P-5	
3	P-4	
2	P-3	
7	G.S.	
41	(17 Professional; 24 General Service)	

137. *Note.* The functions of this Division will be closely interrelated with those of several other divisions—see paragraph 112. The Division of Scientific and Technical Information will also assist the Executive Office in carrying out the Agency's public information programme. The Division of Language and Conference Services would provide assistance in the organization and co-ordination of conferences and symposia.

Division of Exchange and Training of Scientists and Experts

138. *General responsibilities:*

To assist Member States in establishing or developing training programmes for the peaceful uses of atomic energy;

To arrange for the exchange of scientific and technical personnel between Member States;

To establish and direct the Agency's fellowship programme; and

To study the need for establishing co-operative regional training centres.

139. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division: Scientist with wide experience in the organization of scientific and technical training
		Exchange Unit
1	P-5	Scientists familiar with the atomic energy programme of various countries in such subjects as nuclear physics, chemistry and radio-chemistry, engineering and metallurgy
2	P-4	
		Training Unit
1	P-5	Scientists with knowledge of organization of atomic energy training programmes in various countries
3	P-4	
1	P-3	
9	G.S.	
18	(9 Professional; 9 General Service)	

140. *Note.* Administrative and financial arrangements for the Agency's exchange and training and fellowship programmes will be a responsibility of the Division of Personnel.

Division of Safeguards

141. *General responsibilities:*

To develop the safeguards methods and policies of the Agency including procedures for accountability, storage and inspection, and

To undertake research to further the methodology of safeguards and encourage such research in Member States.

142. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division
2	P-5	Scientists with specialized knowledge of
2	P-4	reactor construction, fabrication of
3	P-3	fuel elements, chemical processing of irradiated fuels, etc.
4	G.S.	
12	(8 Professional; 4 General Service)	

143. *Note.* This Division will work in close collaboration with the Inspection Unit.

Division of Health and Safety and Waste Disposal

144. *General responsibilities:*

To formulate standards of health and safety for operations under the Agency's auspices and to evaluate the specific hazards of each project submitted to the Agency;

To undertake studies relating to the international transport of radioactive materials;

To undertake the Agency's activities and further research in connexion with health and safety and waste disposal: and

To co-ordinate international work in the establishment of standards for health and safety.

145. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division: Scientist with broad experience of radiological health and safety problems
2	P-5	Scientists with specialized knowledge of
1	P-4	radiological health and safety prob-
2	P-3	lems, standards and procedures
1	P-5	Scientist with specialized knowledge of waste disposal
1	P-4	Specialist in the transport of radioactive materials
5	G.S.	
13	(8 Professional, 5 General Service)	

146. *Note.* The Division of Isotopes will be associated with this Division in studies relating to the international transport of radioactive materials.

Division of Technical Supplies

147. *General responsibilities:*

To advise the Director General on financial and procurement questions in connexion with materials, equipment, facilities and services made available to the Agency,

To arrange for the receipt from and supply to Member States of materials, equipment, facilities and services made available to the Agency: and

To provide information and advice to Member States in connexion with the supply of materials, equipment, facilities and services.

148. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division: Scientific administrator familiar, in particular, with questions of procurement and supply of fissionable materials
2	P-3/P-5	
3	G.S.	
6	(3 Professional; 3 General Service)	

149. *Note.* The functions of this Division will be closely interrelated with those of several other divisions—see paragraph 112.

Division of Budget and Finance

150. *General responsibilities:*

To provide budgetary and financial services for the Agency in relation to both administrative expenses and receipts and to expenses and receipts under Article XIV.B.2 of the Statute.

151. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division
2	G.S.	
		Budget Unit
1	P-5	Preparation of budget estimates, provision of advice on financial implications of Agency programmes and on financial questions affecting the staff.
1	P-3	
2	G.S.	
		Finance and Accounts Unit
1	P-5	Collection, control and disbursement of funds and preparation of accounts
1	P-4	
1	P-3	
1	P-3	Accountants, receiving and disbursement officers and administrative assistants
2	P-2	
1	P-1	
8	G.S.	
22	(10 Professional; 12 General Service)	

Office of Internal Audit

152. *General responsibilities:*

To provide internal audit for the Agency.

153. *Staff:*

No.	*Post level*	*Notes*
1	P-5	Chief Auditor
1	P-1	
1	G.S.	
3	(2 Professional; 1 General Service)	

Division of Personnel

154. *General responsibilities:*

To carry out the personnel policy of the Agency. The Division of Personnel will also be responsible for personnel aspects of the Agency's programme for the exchange and training of scientists and experts.

155. *Staff:*

No.	*Post level*	*Notes*
1	Director Level	Head of Division
1	P-5	
2	P-3	
4	G.S.	
	Experts and Fellowship Unit	
1	P-4	
1	P-2	
2	G.S.	
	Health Service	
1	P-5	Doctor
2	G.S.	Nurses
15	(7 Professional; 8 General Service)	

Division of Language and Conference Services

156. *General responsibilities:*

To provide the language, documents and conference services required by the Agency.

157. *Staff:*

No.	*Post level*	*Notes*
1	P-5	Head of Division
1	P-1	Work priorities, documents control, etc.
2	G.S.	
	Language Services	
1	P-4	Head of Language Service
32	P-4/P-3	Interpreters, translators, précis-writers, editors
21	G.S.	
	Documents Reproduction and Distribution Unit	
1	P-3	
1	P-2	
25	G.S.	
	Offset Unit and Photography	
4	G.S.	
	Printing and Proofreading Unit	
1	P-3	
1	P-2	
4	G.S.	
95	(39 Professional; 56 General Service)	

Division of General Services

158. *General responsibilities:*

To provide the general services required by the Agency, including pro-

curement, transportation, communications, registry, telecommunications and buildings management.

159. *Staff:*

No.	*Post level*	*Notes*
1	P-5	Head of Division
1	P-3	
2	G.S.	
	Procurement and Travel	
1	P-4	
2	P-3	
1	P-2	
8	G.S.	
	Buildings Management and Security	
1	P-4	
1	G.S.	
	Telecommunications	
1	P-2	
1	G.S.	
	Guards	
1	P-2	
8	G.S.	
	Telephone Operators	
6	G.S.	
	Communications and Registry	
1	P-4	
1	P-3/P-2	
8	G.S.	
	Messengers and Drivers	
6	G.S.	
51	(11 Professional; 40 General Service)	

CHAPTER III

THE BUDGET

FINANCIAL YEAR

160. The Agency's budget will normally cover one financial year ending on 31 December. For the first budget, however, it is thought more appropriate to have a single budget covering the remaining months of 1957 as well as 1958, and showing separately the expenses of the Preparatory Commission and of the General Conference in 1957. The estimates which follow therefore cover the period of the Preparatory Commission and of the Agency until 31 December 1958.

GENERAL OUTLINE

161. The general outline of the budget, which has been prepared in conformity with Draft Provisional Finance Regulation 3.06, is as follows:

	US dollars
ADMINISTRATIVE FUND	
A. Special Expenses (Preparatory Commission and General Conference of 1957)	624,000
B. Normal Expenses	3,465,000
	4,089,000
C. Receipts	*pro memoria*
TOTAL	4,089,000
Working Capital Fund (see Chapter IV)	2,000,000
Assessment of Member States	6,089,000
OPERATING FUND (AGENCY PROJECTS)	
Expenses and Receipts	*pro memoria*
OPERATING FUND (PROJECTS FOR MEMBERS)	
Expenses and Receipts	*pro memoria*
GENERAL FUND	
A. Expenses	250,000
B. Receipts	*pro memoria*
Requested voluntary contributions	250,000

ADMINISTRATIVE EXPENSES

CHARACTER OF THE ESTIMATES

162. The estimates are necessarily contingent upon a variety of factors and in particular upon the decisions which must be taken in due course regarding the programme recommended in Chapter I and the staffing proposals made in Chapter II. Moreover, while it has been possible to plan a programme in terms of recommended activities, it is impossible to foresee accurately its full scope or rate of development. There will no doubt be a desire to proceed expeditiously, but experience has shown the inadvisability of undertaking too rapid a recruitment of staff on the basis of manning tables, before the work to be done has fully developed.

163. The tentative nature of the attached estimates must therefore be emphasized. They indicate the probable costs of a workable structure, staffed to deal with the likely workload in the first year. The Commission considers that a first-rate nucleus of directing staff should be recruited as soon as persons of the requisite calibre can be found; other staff, however, should be recruited only as and when the level of work so requires. A saving of approximately 40 per cent of salaries for delayed recruitment is therefore reflected in the budget. To the greatest extent possible both staff and posts must be transferable between divisions to achieve the requisite flexibility. The first year of operation of the Agency will necessarily be a year of exploration and adaptation on the basis of which the Agency should be able to arrive at a more accurate assessment of future staff needs.

CONDITIONS OF SERVICE

164. As regards the conditions of service of the staff, the estimates assume that in general the Agency will be able to use the classification system and salary scales of the United Nations, as approved by the General Assembly in 1956 after a thorough review by an expert inter-governmental committee. Salaries of the professional staff in Vienna would initially be set at the net base level.[1] A cost of living survey should be conducted in Vienna within a reasonable period. Secretarial and clerical staff would, so far as practicable, be recruited in or near Vienna and paid on the basis of best prevailing local rates, which will need to be surveyed;[2] General Service staff who could not, for language or other reasons, be found locally would be paid an additional non-resident's allowance.

[1] The base level salary scale for each grade is the scale deemed appropriate for international officials in all United Nations organizations in relation to the cost of living at Geneva on 1 January 1956. Where, at other offices or at different dates, the relative cost of living index differs from the cost of living at Geneva on 1 January 1956, the actual salaries paid may be adjusted by non-pensionable "post adjustments". United Nations pension entitlements are always related to base salary levels, irrespective of the office where the official serves.

[2] For budgetary purposes, the average net salary (including, when applicable, non-residents' allowance) of each member of the General Service staff has been taken as $2,000 annually.

165. The United Nations salary system should not, in general, give rise to any difficulties for the Agency. It must be recognized however that the salaries of scientific staff in the atomic energy field vary widely in different countries, and, in particular cases, it may be necessary to resort to special measures to obtain staff of the calibre required. Secondment, by which the Agency would reimburse another employer for the actual salary, is one such means; use of consultants is another.

Form of the budget

166. As regards the form of the administrative part of the budget, the Preparatory Commission has used as a pattern the general outline of the United Nations budget as revised by the General Assembly at its eleventh session. Apart from the desirability of uniformity in the presentation of budgets of international organizations, it appears that this form is well suited for the administrative expenses of the Agency.

167. It will be noted that the budget covers the salaries of the secretariat of the Agency as a whole. For purposes of information, however, a synoptic table is provided in footnote #3 to show the provisional strengths of the staff units proposed in Chapter II of this report. At the present stage it would be difficult to give a divisional breakdown of costs in the budget. The distribution of common staff costs among the various units cannot be predicted; moreover, a substantial part of the administrative costs, such as those of the "housekeeping" services and the language services, are in the nature of overhead costs for the technical divisions. Although it will be interesting, eventually, to have information regarding the distribution of such costs, it is not considered practicable at this stage to construct the budget on a divisional cost basis.

168. The Commission's recommendations for financing the initial administrative expenses of the Agency are given in Chapter IV.

Other expenses

169. The form of the budget for other expenses involves different considerations. The Commission believes that it would be premature at this stage to attempt to draw up a form of budget to cover such expenses, since to some extent that form will depend upon the type and nature of the projects to be financed.

170. Nevertheless, the Commission has, to ensure conformity with the Draft Provisional Financial Regulations, drawn up separate parts of the budget covering:

(*a*) Expenses which may be incurred under Article XIV.B.2 of the Statute, in connexion with any materials, facilities, plant and equipment acquired or established by the Agency in carrying out its authorized functions (other than those classified as administrative expenses);

(*b*) Expenses attributable to the provision of materials, services, etc., to Member States under Article XI of the Statute; and

(*c*) Other expenses, such as may for example be contemplated under Article XIV.F. of the Statute.

171. In the present circumstances the parts of the budget referred to in paragraph 170 (*a*) and (*b*) above are merely *pro memoria*. For that under paragraph 170 (*c*), however, the Commission has proposed the inclusion of $250,000 for a limited fellowship programme which, from the administrative point of view, could be undertaken by the Agency during the course of 1958 if funds were to be made available.

172. The scope of the Agency's activities under this part of its budget during the first year will clearly depend upon the possibilities of obtaining the necessary funds through charges, voluntary contributions or other means. Methods of financing such operations are discussed in Chapter IV.

BUDGET ESTIMATES

173. In the light of the foregoing considerations, the Preparatory Commission has prepared the following budget estimates. The text of a draft appropriation resolution for adoption by the General Conference is included as Draft Resolution A in Annex I.

ADMINISTRATIVE FUND

A. SPECIAL EXPENSES

Expenses of the Preparatory Commission and of the General Conference in 1957 ..... $624,000

The Preparatory Commission has appropriated this sum to cover its expenses, estimated at $399,000, and those of the General Conference in 1957, estimated at $225,000. Statements showing expenditures up to 31 August 1957 and the method of financing will be submitted to the General Conference. The estimated cost of the General Conference in 1957 takes into account the anticipated contribution by the Government of Austria.

B. NORMAL EXPENSES

Part I

Section 1. Conferences: the second regular session of the General Conference *$300,000*

The estimated cost of the second regular session of the General Conference will, it is expected, be met entirely by the Agency, and an amount of $75,000 has accordingly been added to the estimate of $225,000 for the 1957 Conference, making a total of $300,000. This amount will not be sufficient to cover the full conference costs, but the language and other staff of the Agency will by then be available and the number of additional conference staff to be recruited will be correspondingly smaller.

Section 2. Seminars and scientific meetings (including certain costs for participants from Member States) *$100,000*

Part II

Section 3. Salaries and wages *$1,100,000*

The cost in a full year of the net salaries of the proposed staff establishment would be $1.796,350. distributed as shown below

Post	Salary $	Number of posts	Total cost $
Director General and other senior directing staff:			
Staff at Director level (D-1 and D-2)	10,000 -12,500	15	150,000 168,750
Senior officers (P-5)	8,750	42	367,500
First officers (P-4)	7,300	53	386,900
Second officers (P-3)	6,000	41	246,000
Associate officers (P-2)	4,800	13	62,400
Assistant officers (P-1)	3,600	3	10,800
General Service staff	2,000	202	404,000
TOTALS		369	1,796,350

The distribution of the staff suggested in Chapter II of this report is shown in footnote No. 3.

[3] *Provisional table of distribution of staff by unit*

Unit	Posts						
	Director Level (D-2 or D-1)	P-5	P-4	P-3	P-2	P-1	G.S.
Director General and other senior directing staff							
Executive Office of the Director General	2	2	3	3	1		12
Legal Division	1	1	1	1			4
Economic and Technical Assistance Division	1	2	1	3			7
Inspection Unit	1	1	2				2
Division of Research, Research Contracts and Laboratories	1	4		2			4
Division of Isotopes	1	9					7
Division of Reactors	1	5			1		4
Division of Scientific and Technical Information	1	3	9	4			24
Division of Exchange and Training of Scientists and Technicians	1	2	5	1			9
Division of Safeguards	1	2	2	3			
Division of Health, Safety and Waste Disposal	1	3	2	2			5
Division of Technical Supplies	1	1		1			3
Division of Budget and Finance	1	2	1	3	2	1	12
Office of Internal Audit		1				1	1
Division of Personnel	1	2	1	2	1		8
Division of Languages and Conference Services		1	23	12	2	1	56
Division of General Services		1	3	4	3		40
TOTALS	15	42	53	41	13	3	202

Owing to delayed recruitment it is estimated that the costs of salaries and wages will be reduced during the Agency's first year by some 40 per cent, and that the actual expenditure under this section will be of the order of $1.100,000.

Section 4. Temporary assistance, consultants and contractual scientific services *$390.000*

Particularly in the early part of the life of the Agency, it is expected that relatively large provision for temporary assistance, consultants and contractual scientific services will be necessary.

Section 5. Travel of staff on official business.. ..... *$125,000*

For obvious reasons, no accurate estimate can be made, but there will clearly be a general need, in the organizational stages, for relatively frequent journeys by members of the staff to establish contact with Governments, institutions and other organizations.

Section 6. Common staff costs *$500,000*

This section covers such items as cost of travel of staff and dependants on recruitment, cost of removal of household effects or assignment allowances in lieu thereof, installation allowances, dependants' allowances. provident fund or pension fund contributions. Dependants' allowances are likely to be of the order of 5 per cent of the salaries paid. Pension contributions, assuming that the staff participate in the United Nations pension scheme. will cost 14 per cent of salaries. At this stage, however, it would be impracticable to attempt a detailed estimate under each heading. United Nations experience suggests that in the early years the total of such costs may normally amount to about 30 per cent of net salaries. For the first year this would require an appropriation of $300,000; however. this amount must be increased considerably to provide for heavy expenses of travel upon initial recruitment, removal of household effects and installation allowances, and a total of $500,000 is accordingly proposed. In future years, the costs in terms of percentage of salaries should fall.

Section 7. Common services and supplies..... *$440,000*

It is not possible to foresee at this stage what will be the cost of installing the Secretariat at the headquarters of the Agency, particularly since the site of the headquarters had not been decided upon when this estimate was prepared. Although it is assumed that the Host Government will pay the major costs of alterations on the site, certain further changes and remodelling will probably be required.

Common services and supplies also include the costs of all the initial office and reproduction supplies for the Secretariat. It will further include telephone services, communication services, the services of office cleaners. etc., which cannot be estimated in detail at this stage. The provision of $440,000 is largely conjectural but probably conservative for the initial year. The permanent level of this expenditure should, however, be well below this figure.

Section 8. Permanent equipment *$400,000*

This is also an amount which cannot yet be estimated accurately. The largest single item will be the purchase of office furniture and equipment. On the assumption that it would cost an average of $400 to $500 to buy office equipment for each staff member, the Agency would need approximately $200,000 for such purchases. Secondly, provision must be made for books and periodicals, library equipment, reproduction equipment, simultaneous interpretation installations, calculators, transportation equipment, typewriters, etc., for which a further $200,000 is included.

Funds to establish a laboratory would also be provided under this section, should the Board of Governors decide some time during the Agency's first year to set up a laboratory.

Part III

Section 9. Hospitality *$10,000*

This provision has been included to cover group hospitality undertaken by members of the Secretariat on behalf of the Agency and to provide for reimbursement, with the approval of the Director General, of staff members who do not receive representation allowances for hospitality expenses incurred in the course of their official duties.

Part IV

Section 10. Contractual printing.....*$100,000*

This estimate can only be tentative until a publications programme for the Agency has been prepared.

C. RECEIPTS

Income from the application of safeguards to bilateral and multilateral arrangements[1] ....*pro memoria*

Income from the handling and storage of special fissionable materials .....*pro memoria*

Miscellaneous income ....*pro memoria*

[1] It is assumed that during the first financial year the level of activities in connexion with the Agency's work in implementing safeguards, including their application to any bilateral or multilateral arrangements, and in connexion with the handling and storage of special fissionable materials will not entail additional cost. Article XIV.C. of the Statute provides, however, that such amounts as are recoverable by the Agency under agreements regarding the application of safeguards to bilateral and multilateral arrangements shall be credited to administrative expenses. Since the terms of such agreements cannot be foreseen at this stage, a *pro memoria* entry only is made in the budget. Similarly in terms of Article XIV.E. of the Statute the costs of handling and storage of special fissionable materials which are furnished to Members of the Agency shall be recoverable. Since no estimate can yet be made of the income that may accrue to the Agency from this activity, a *pro memoria* entry is also made under this heading.

RECAPITULATION OF EXPENSES AND RECEIPTS

			$	$
A.	Special expenses:			
	Expenses of the Preparatory Commission and of the General Conference in 1957			624,000
B.	Normal expenses:			
	Part I			
	Section 1.	Conferences; the second regular session of the General Conference	300,000	
	2.	Seminars and scientific meetings	100,000	
	Part II			
	3.	Salaries and wages	1,100,000	
	4.	Temporary assistance, consultants and contractual scientific services	390,000	
	5.	Travel of staff on official business	125,000	
	6.	Common staff costs	500,000	
	7.	Common services and supplies	440,000	
	8.	Permanent equipment	400,000	
	Part III			
	9.	Representation and hospitality	10,000	
	Part IV			
	10.	Contractual printing	100,000	3,465,000
		TOTAL		4,089,000
C.	Receipts			
	Income			*pro memoria*

OPERATING FUND (AGENCY PROJECTS)

A.	*Expenses*		
	Materials, facilities, plant and equipment acquired or established by the Agency under Article XIV.B.2. of the Statute		*pro memoria*
B.	*Receipts*		*pro memoria*

OPERATING FUND (PROJECTS FOR MEMBERS)

A.	*Expenses*		
	Materials, services, equipment and facilities provided to Member States under Articles XI and XVI.B.2. of the Statute		*pro memoria*
B.	*Receipts*		*pro memoria*

GENERAL FUND

A.	*Expenses*		
	Cost of providing 100 fellowships to Member States		$250,000
B.	*Receipts*		*pro memoria*

CHAPTER IV

FINANCING OF THE AGENCY

174. The Preparatory Commission's observations and recommendations regarding the financing of the Agency distinguish between:

(*a*) The financing of administrative expenses which are to be met by Members' contributions; and

(*b*) The financing of other expenses which are to be met from charges to Members in accordance with Article XIV.E. of the Statute and/or from voluntary contributions made in accordance with Article XIV.G. of the Statute.

Financing of administrative expenses

175. After the end of the General Conference in 1957 the Agency will have an immediate need for funds to:

(*a*) Repay the United Nations the monies borrowed to finance the Preparatory Commission and the meetings of the General Conference in 1957 (estimated at $624,000 to the end of November 1957); and

(*b*) Finance Agency expenditures until such time as sufficient contributions have been received from Member States to cover such expenses.

176. At the beginning of the second and subsequent financial years the Agency will have to meet expenses during the first few months of the year before sufficient contributions have been received to cover them. The experience of other international organizations shows that there is invariably some time lag before the receipt of such contributions.

Working Capital Fund

177. In order to solve the problem described in paragraph 176 and as a step towards meeting the Agency's immediate financial needs, the Preparatory Commission recommends that the first General Conference should resolve to establish a Working Capital Fund for the Agency. The experience of other international organizations suggests that the size of the Fund should amount to approximately 50 per cent of the estimated annual administrative expenses of the Agency; that is, about $2 million in the first instance.

178. It is recommended that this Fund should be built up by advances from all Members in US dollars or equivalent currencies in accordance with Regulation 6.05 of the Draft Provisional Financial Regulations,[1] and that in accordance with the practice of the United Nations and the specialized agencies the scale on which advances should be paid should be the same as that approved by the General Conference for contributions to the annual budget. When changes are made in this scale, consequential adjustments would be made to Members' advances to the Fund. Each advance made by a Member would be carried to the credit of that Member.

179. The purposes for which the Working Capital Fund may be used should be defined by the General Conference in an annual resolution. The major purpose would be to finance approved administrative expenses pending the receipt of contributions; and as contributions were received the Fund would be reimbursed.

Initial financing

180. As has been indicated in paragraph 175 (*a*). the Agency will be faced at the outset with a relatively large commitment to repay monies borrowed from the United Nations. As has already been stated, the costs of travel and installation during the initial recruitment of staff must be expected to be heavy during the first few months of the Agency; this is equally true of expenditures on permanent equipment. It is also likely that, just as there is normally some delay before the receipt of Members' contributions, there may be some delay, unless special steps are taken, before advances to the Working Capital Fund are received. The Agency may thus not be able to look to the Fund as an adequate source of initial finance.

181. As there is no certainty that the Agency could secure a sufficiently long-term loan from the United Nations and as there are indications that the loan made to the Preparatory Commission may have to be repaid early in 1958, the Preparatory Commission considers that borrowing from the United Nations would not be an appropriate method of meeting the Agency's needs. In the circumstances, besides making every effort to secure early payment of all advances due to the Working Capital Fund (and to collect contributions), it may be necessary for the Agency to raise additional advances from one or more Member States against a pledge of repayment from the Working Capital Fund as soon as adequate advances to the Fund have been received.

182. The Preparatory Commission accordingly recommends the adoption by the General Conference of Resolution B set forth in Annex I.

[1] Regulation 6.05 of the Draft Provisional Financial Regulations reads as follows: "Annual contributions, and advances to the Working Capital Fund of the Agency shall be assessed and paid in US dollars, provided that payment of the whole or part of these contributions and advances may be made in such other currency or currencies as the Director General, in consultation with the Board of Governors, shall have determined."

Financing of other expenses

183. The expenses provided for in Article XIV.B.2. of the Statute are of three types:

(*a*) Expenses incurred in connexion with Agency projects, i.e., materials, facilities, plant and equipment acquired or established by the Agency in carrying out its authorized functions;

(*b*) Expenses incurred in projects undertaken for the benefit of one or a group of Member States, i.e.. expenses attributable to the provision of materials, services, equipment or facilities, provided under agreements with one or more Members: and

(*c*) Any other expenses which may be incurred pursuant to Article XIV.F. of the Statute.

In accordance with the understanding reached at the Conference on the Statute, it is not open to the Agency to exercise borrowing powers under Article XIV.G. of the Statute except in certain circumstances.

184. The expenses referred to in paragraph 183 (*a*) will be financed from charges made to Member States for their use of Agency projects and also, if the General Conference so decides, by transfers from the General Fund referred to in Article XIV.F. The kind and number of projects which the Agency should itself undertake can be determined only after it has acquired considerable operational experience and no provision for such projects can therefore be made in the first budget.

185. Expenses under paragraph 183 (*b*) will be normally financed through charges to Member States in accordance with the scale of charges foreseen in Article XIV.E. of the Statute. and the proceeds of such charges will be placed in the Operating Fund which would be established in accordance with the Draft Provisional Financial Regulations to pay for materials, etc., supplied. It will clearly be undesirable for the Board of Governors to make frequent or drastic changes in the scale of charges. The Agency may as a result find at times that its revenues are in excess of its expenses and there may also be periods during which it incurs a deficit. Article XIV.F. provides that such excess revenues shall be transferred to the General Fund. The procedure for meeting deficits in the Operating Fund is however, somewhat different; Article XIV.E. and F. provide that the Board of Governors may, but only with the approval of the General Conference, make transfers from the General Fund into the Operating Fund.

It is clear that these provisions might give rise to difficulties if they were interpreted to mean that excess revenues must automatically be transferred to the General Fund at the end of a financial year during which excess revenues were received, while no similarly automatic arrangement existed for meeting deficits incurred during a financial year. The Preparatory Commission recommends therefore that the Board of Governors should. at an early stage, give careful consideration both to the establishment of a scale of charges and to the principles of prudent management which would govern transfers between the Operating Fund and the General Fund. The principles for fixing the charges are set out in the Statute and the Draft Provisional Financial Regulations.

186. The Agency's transactions to which paragraph 183 (*b*) relates will have to some extent a commercial character and no realistic estimate can be made of their number or size during the first budgetary period. In subsequent years however the Board of Governors should be in a position to include an estimate of the expected volume of such projects in the budget submitted to the General Conference.

187. The expenses provided for under paragraph 183 (*c*) will be financed directly from the General Fund which will be built up by voluntary contributions from Member States and the excess of revenues referred to above. In paragraph 171 the Preparatory Commission has recommended the expenditure of $250,000 under this heading during the Agency's first financial year for a fellowship programme, provided that funds are available. Since no excess of revenues will immediately be available to the General Fund, this programme can only be undertaken on the basis of voluntary contributions. The Preparatory Commission therefore recommends the adoption by the General Conference of Resolution C in Annex I, inviting Member States to make voluntary contributions to the Agency and authorizing the Board of Governors to use up to $250,000 from such contributions to finance a fellowship programme.

ANNEX I

DRAFT RESOLUTION A

APPROPRIATION FOR THE FINANCIAL YEAR ENDING 31 DECEMBER 1958

The General Conference

Resolves that for the first financial period of the Agency, ending on 31 December 1958:

1. Appropriations totalling $US4,089,000 are hereby voted for the following purposes:

			Amount in US dollars	
A.	*Special Expenses*			
	Expenses of the Preparatory Commission and of the General Conference in 1957			624,000
B.	*Normal Expenses*			
	Part I			
	Section 1.	Conferences: the second regular session of the General Conference	300,000	
	2.	Seminars and scientific meetings	100,000	
	Part II			
	3.	Salaries and wages	1,100,000	
	4.	Temporary assistance, consultants and contractual scientific services	390,000	
	5.	Travel of staff on official business	125,000	
	6.	Common staff costs	500,000	
	7.	Common services and supplies	440,000	
	8.	Permanent equipment	400,000	
	Part III			
	9.	Hospitality	10,000	
	Part IV			
	10.	Contractual printing	100,000	3,465,000
		TOTAL		4,089,000

2. The appropriations voted by paragraph 1 shall be financed by contributions from Member States.

3. The Director General may, with the prior authorization of the Board of Governors, transfer credits between sections of the Budget.

DRAFT RESOLUTION B

Establishment of the Working Capital Fund

The General Conference,
Considering that:

(*a*) The Agency will require funds, pending receipt of assessed contributions from Members, to finance its initial administrative expenses and to repay the monies borrowed from the United Nations to finance the Preparatory Commission and the first General Conference;

(*b*) The Agency will similarly require funds to meet expenses in subsequent years before Members' contributions are received;

(*c*) The establishment of a Working Capital Fund is therefore desirable; and that

(*d*) A delay in payment by Members of advances to the Working Capital Fund and of their contributions may make it necessary for the Agency to borrow money to meet its initial expenses;

1. *Resolves* to establish a Working Capital Fund in accordance with the conditions set forth in Appendix 1 to this resolution:

2. *Requests* Members to pay their advances to the Working Capital Fund and their assessed contributions as soon as possible: and

3. *Authorizes* the Board of Governors, if the need arises in the early stages, to obtain additional advances from Member States in accordance with Appendix 2 to this resolution, for the sole purpose of building up the Working Capital Fund, pending receipt of regular advances and contributions from Members.

Appendix 1

1. The amount of the Working Capital Fund shall not exceed $US2,000,000.

2. Each Member shall advance to the Agency an amount determined according to the scale fixed for the assessed annual contributions of Members to the administrative expenses of the Agency.

3. Advances by Members shall be assessed and paid in US dollars provided that payment of the whole or part of the advances may be made in such other currency as the Director General, in consultation with the Board of Governors, shall have determined.

4. Advances made by a Member shall be carried to the credit of that Member.

5. Adjustments shall be made in the scale of advances to the Working Capital Fund when changes are made in the scale of assessed contributions of Members to the administrative expenses of the Agency.

6. The annual contribution of each Member, other than any voluntary contribution, shall be credited in the first place to the Working Capital Fund and then to the amounts due from that Member as contributions to

the Agency's administrative expenses in the order in which such amounts were assessed.

7. The purpose for which the Working Capital Fund may be used shall be defined in an annual resolution of the General Conference. In the period ending 31 December 1958, the Working Capital Fund may be used to repay the Agency's debt to the United Nations for monies borrowed to finance the Preparatory Commission and the first General Conference and to finance approved administrative expenses pending the receipt of Members' contributions to such expenses. As Members' contributions are received, the Working Capital Fund shall be reimbursed.

Appendix 2

The Board of Governors may, on behalf of the Agency, obtain additional advances from Member States not exceeding a total of $2,000,000 to be paid into the Working Capital Fund established by this resolution, subject to the following conditions:

(*a*) No advance shall be obtained unless it is clear that funds otherwise available will be insufficient to meet essential administrative expenses;

(*b*) Advances shall be obtained only from Members of the Agency and/or the United Nations; and

(*c*) All advances shall be free of interest and shall be repaid as soon as sufficient regular advances to the Working Capital Fund are received and in any case not later than 1958.

DRAFT RESOLUTION C

VOLUNTARY CONTRIBUTIONS

The General Conference,

Considering that:

(*a*) In view of the shortage, particularly in the under-developed areas of the world, of scientists and technicians having specialized education or training in nuclear technology for peaceful purposes, the Agency can render valuable assistance to Member States by facilitating arrangements for exchange and training and in particular by undertaking a limited fellowship programme; and that

(*b*) Such a programme can be financed only if sufficient voluntary contributions are made to the General Fund of the Agency;

1. *Resolves that:*

(*a*) The Agency should as soon as possible arrange to provide fellowships on appropriate terms and conditions; and that

(*b*) Provided funds are available, an amount not exceeding $250,000 should be appropriated from the General Fund during 1958 for this purpose;

2. *Invites* all Members to make voluntary contributions to the General Fund of the Agency to finance this programme;

3. *Authorizes* the Board of Governors to accept voluntary contributions made in accordance with the Statute; and

4. *Requests* the Board of Governors to submit to the General Conference at its second regular session, recommendations concerning rules to govern the acceptance of voluntary contributions.

ANNEX II

BASE SALARY SCALES

(United Nations scales; net in US dollars)

PROFESSIONAL CATEGORY AND ABOVE

Grade	*Step I*	*Step II*	*Step III*	*Step IV*	*Step V*	*Step VI*	*Step VII*	*Step VIII*	*Step IX*	*Step X*
Under-Secretary	$12,500 fixed with a non-pensionable basic allowance of $3,500									
Director (D.2)	$12,500 fixed									
Principal Officer (D.1)	10,000	10,400	10,800	11,200	11,600	12,000				
Senior Officer (P.5)	8,750	9,000	9,250	9,500	9,800	10,100	10,400	10,700	11,000	
First Officer (P.4)	7,300	7,525	7,750	8,000	8,250	8,500	8,750	9,000	9,250	9,500
Second Officer (P.3)	6,000	6,200	6,400	6,625	6,850	7,075	7,300	7,525	7,750	8,000
Associate Officer (P.2)	4,800	5,000	5,200	5,400	5,600	5,800	6,000	6,200	6,400	
Assistant Officer (P.1)	3 600	3,800	4,000	4,200	4,400	4,600	4,800	5,000		

Notes:

1. Salary increments within the scales set forth above are awarded annually on the basis of satisfactory service, provided that the period of satisfactory service required for increments to any salary step above $11,000 net shall be two years.

2. The rate of pay and basic allowance for Under-Secretaries will be reviewed following a review of conditions at this level which is to be made by the United Nations General Assembly at its twelfth session in 1957.