



International Atomic Energy Agency

PROGRAM
AND BUDGET
FOR 1962

GC(V)/155

Printed by the
International Atomic Energy Agency
in Austria - August 1961

TABLE OF CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
List of abbreviations		- vii -
INTRODUCTION	1 - 20	1
A. General	1 - 4	1
B. Form of the program and budget	5 - 9	1
C. Comparison of the budget estimates for 1961 and 1962	10 - 14	2
D. The Working Capital Fund	15 - 19	3
E. Submission of the budget to the United Nations General Assembly	20	3
CHAPTER I. THE AGENCY'S PROGRAM	21 - 156	4
A. General	21 - 26	4
B. Research on, development and application of nuclear energy	27 - 75	6
I. Nuclear power and reactors	27 - 57	6
1. Economics	27 - 32	6
2. Reactor science and technology	33 - 41	6
3. Research co-ordination and exchange of information	42 - 48	7
4. Fuel cycles and materials	49 - 56	8
5. Fusion	57	8
II. Radioisotopes	58 - 75	9
1. General	58 - 65	9
2. Medicine	66 - 68	9
3. Agriculture	69 - 71	10
4. Hydrology	72 - 73	10
5. Industry	74 - 75	10
C. Services, equipment and supplies	76 - 91	11
I. Missions	76 - 78	11
II. Experts	79 - 85	11
III. Equipment	86 - 89	12
IV. Supplies	90 - 91	12
D. Scientific information	92 - 103	13
I. Scientific meetings	92 - 94	13
II. Publications	95 - 98	13
III. Scientific documentation	99 - 100	13
IV. Library	101 - 102	14
V. Special projects	103	14
E. Exchange and training	104 - 110	15
I. Fellowships	104 - 106	15
II. Research and special grants, and visiting professors	107 - 108	15
III. Training courses	109 - 110	15
F. Safeguards	111 - 116	16

	<u>Paragraphs</u>	<u>Page</u>
G. Safety	117 - 149	17
I. Standards, regulations and manuals	117 - 122	17
II. Safety of nuclear installations and operations	123 - 132	17
III. The effects of radiation on man and his environment	133 - 143	18
IV. Nuclear accidents	144 - 146	19
V. Liability and insurance	147 - 149	19
H. Facilities	150 - 156	21
I. The Agency's Laboratory	150 - 155	21
II. The Agency's mobile laboratories	156	21
 CHAPTER II. THE WORK OF THE SECRETARIAT	 157 - 225	 22
I. Office of the Director General	160 - 161	23
1. Office of the Director General		23
2. Office of Internal Audit	160 - 161	23
II. Department of Training and Technical Information	162 - 172	24
3. Office of the Deputy Director General for Training and Technical Information	162	24
4. Division of Exchange and Training of Scientists and Experts	163 - 165	24
5. Division of Scientific and Technical Information	166 - 172	25
III. Department of Technical Operations	173 - 186	27
6. Office of the Deputy Director General for Technical Operations		27
7. Division of Economic and Technical Assistance	173 - 178	27
8. Division of Reactors	179 - 180	28
9. Division of Technical Supplies	181 - 182	29
10. Division of Health, Safety and Waste Disposal	183 - 186	30
IV. Department of Research and Isotopes	187 - 195	32
11. Office of the Deputy Director General for Research and Isotopes	187 - 188	32
12. Division of Research and Laboratories	189 - 192	32
13. Division of Isotopes	193 - 195	33
V. Department of Safeguards and Inspection	196 - 199	35
14. Office of the Inspector General	196	35
15. Division of Safeguards	197 - 198	35
16. Division of Inspection	199	36
VI. Department of Administration, Liaison and Secretariat	200 - 225	37
17. Office of the Deputy Director General for Administration, Liaison and Secretariat		37
18. Secretariat of the General Conference and the Board of Governors	200 - 204	37
19. Division of External Liaison and Protocol and Office of the Representative of the Director General at United Nations Headquarters	205 - 207	38
20. Legal Division	208 - 210	40
21. Division of Public Information	211	41
22. Division of Budget and Finance	212 - 219	41
23. Division of Personnel	220	43
24. Administrative Office of Technical Assistance	221	43

	<u>Paragraphs</u>	<u>Page</u>
25. Division of Conference and General Services	222 - 224	44
26. Division of Language Services	225	45
 CHAPTER III. THE BUDGET	 226 - 561	 46
A. General	226 - 229	46
B. Financing of Regular Budget expenses	230 - 234	46
C. Financing of Operational Budget expenses	235 - 242	47
D. Participation in the United Nations Expanded Programme of Technical Assistance	243 - 244	48
E. The Consolidated Budget		49
F. Regular Budget estimates	245 - 476	50
Expenditures	245 - 249	50
I. The General Conference and the Board of Governors	250 - 287	52
1. The General Conference	250 - 270	52
2. The Board of Governors	271 - 287	54
II. Functional Program activities	288 - 358	57
3. Panels and committees	288 - 292	57
4. Special missions	293 - 297	58
5. Seminars, symposia and conferences	298 - 302	59
6. Distribution of information	303 - 338	61
7. Scientific and technical services and laboratory charges	339 - 358	66
III. The Secretariat	359 - 420	70
8. Salaries and wages	359 - 372	70
9. Common staff costs	373 - 407	72
10. Duty travel of staff	408 - 415	76
11. Representation and hospitality	416 - 420	78
IV. Common services, supplies and equipment	421 - 473	79
12. Common services	421 - 450	79
13. Non-technical supplies and equipment	451 - 473	82
Receipts	474 - 476	84
G. Operational Budget estimates	477 - 561	85
I. The General Fund	477 - 480	85
II. Operating Fund I	481 - 512	86
1. Laboratory facilities	484 - 512	87
III. Operating Fund II	513 - 557	91
2. Fellowships and training program	517 - 533	92
3. Technical assistance program	534 - 545	95
4. Research contracts program	546 - 551	97
5. Mobile radioisotope laboratories	552 - 557	98
IV. The United Nations Expanded Programme of Technical Assistance	558 - 561	100

ANNEXES

Annex I	Approximate allocation of proposed expenditure in 1962 to the principal activities of the Agency	102
Annex II	Tentative manning table for 1962	104
Annex III	Draft resolutions	105
	I. Budgetary appropriations for 1962	105
	II. Use of the Working Capital Fund in 1962	106

LIST OF ABBREVIATIONS

ACABQ	Advisory Committee on Administrative and Budgetary Questions (of the United Nations General Assembly)
ACC	Administrative Committee on Co-ordination
Agency	International Atomic Energy Agency
Board	Board of Governors (of the Agency)
CCAQ	Consultative Committee on Administrative Questions (of the United Nations)
D	Director
DG	Director General
DDG	Deputy Director General
ECOSOC	Economic and Social Council (of the United Nations)
EPTA	Expanded Programme of Technical Assistance (of the United Nations)
FAO	Food and Agriculture Organization of the United Nations
GS	General Service (staff)
IANEC	Inter-American Nuclear Energy Commission
ICRP	International Commission on Radiological Protection
ICRU	International Commission on Radiological Units and Measurements
ICSAB	International Civil Service Advisory Board
IG	Inspector General
ILO	International Labour Organisation or Office
M & O	Maintenance and Operatives Service (staff)
P	Professional category (staff)
SAC	Scientific Advisory Committee (of the Agency)
TAB	Technical Assistance Board (of the United Nations)
TAC	Technical Assistance Committee (of the United Nations Economic and Social Council)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
WHO	World Health Organization
WMO	World Meteorological Organization

NOTE

All sums of money are expressed in United States dollars.

INTRODUCTION

A. GENERAL

1. In accordance with Article XIV.A of the Statute, the Board of Governors hereby submits to the General Conference the budget estimates for the expenses of the Agency in 1962.
2. The estimates, which were initially prepared by the Director General, take into account the preliminary views expressed by the Board in April 1961 on the content and scope of the program for 1962 and the size of the Operational Budget. At that time the Board had also instructed its Administrative and Budgetary Committee to review and examine in detail the budget estimates which were being prepared in the Secretariat as well as the justifications for these estimates. This the Committee did during May 1961 and, in the light of its report, the Board adopted the program and the budget estimates at meetings held between 20 and 27 June 1961.
3. Some of the principal scientific activities of the Agency, such as the program for scientific meetings and certain parts of the publications and the research programs were reviewed by SAC at meetings held in New York in November 1960 and in Vienna in May 1961. The Board has taken account of SAC's views in deciding the scope of these activities in 1962.
4. The Board recommends the adoption of the program and budget by the General Conference and wishes once again to express the hope that Member States will respond fully to the growing need for voluntary contributions to the Operational Budget. It was especially emphasized last year that a decision by the General Conference regarding the level of the Agency's operational program implies the willingness of Member States to make voluntary contributions to the General Fund to the maximum extent compatible with their resources, so that a program adopted by a body representing the entire membership of the Agency shall not be curtailed through lack of funds. The response to the appeal for contributions for 1961 impels the Board to state that unless the response for 1962 is greater, the successful fulfillment of the Agency's statutory responsibilities will be seriously jeopardized.

B. FORM OF THE PROGRAM AND BUDGET

5. The program and budget for 1962 embodies several important changes of form as compared with that of previous years.
6. The first of these concerns the manner of presenting the program. Hitherto this has been done by describing separately the work which it was planned that each division should undertake in the ensuing year. It has now been thought desirable to present, in Chapter I, the proposed activities grouped under headings that correspond as far as possible to the Agency's statutory functions, even though different divisions may be responsible for implementing individual parts of the program. Thus, for example, although a number of divisions are concerned with nuclear power and reactors, all work in this field which it is planned to undertake in 1962 has been described under one main heading. This form of presentation makes it unnecessary to set forth separately the programs of work of the various divisions. However, the role which each plays in the implementation of the Agency's program can be ascertained from the descriptions of functions and responsibilities which follow the different manning tables.
7. Secondly, the cost of duty travel for certain specified purposes, which in the past has been met from the appropriation for special missions, should, in the opinion of the Board, be charged to the appropriation for duty travel of staff. Travel of this type includes that undertaken in connection with what have been termed isotope and health physics missions, and, in general, all travel involving the provision of advisory services to Member States as well as travel of staff members in connection with the safeguards program.

8. A third change in form which appears desirable is to combine under one appropriation section all funds required for representation and hospitality. In previous years the amount budgeted to cover representation allowances has been included in the appropriation for salaries and wages. The Board believes the change to be in the interest both of clarity and greater flexibility in the use of the funds provided.

9. Finally, whereas previous budgets have shown separately the costs of non-technical supplies and non-technical equipment, these two items have this time been combined in one budget section. Now that the majority of the staff are housed in one building and the period of large-scale recruitment is over, requirements for non-technical equipment will probably be limited to replacements and to such essential items of new equipment for which a need may arise. For this reason it was considered preferable to combine the estimated cost of such equipment with the annual cost of expendable supplies, since the former is not expected to be of sufficient magnitude as to warrant a separate budget section.

C. COMPARISON OF THE BUDGET ESTIMATES FOR 1961 AND 1962

10. For 1961 the total amount budgeted for the Regular Program was \$6 168 000, while the estimates for this part of the budget for 1962 amount to \$6 261 000, an increase of \$93 000 or 1.5%. However, taking into account a provision of \$187 000 for non-recurring expenditure in 1961, the increase in 1962 amounts to \$280 000 or 4.7%. The Operational Budget estimates have also increased from \$1 800 000 to \$2 055 000. In Chapter III will be found detailed explanations of the need for these increases.

11. Conscious of the desire of the General Conference to curtail the growth in the number of staff [1], the Board nevertheless realizes that the expansion of the Agency's activities cannot in the long run continue without some increase in personnel. In 1961 it was possible to meet most of the requirements for additional scientific and technical staff from a pool of vacant positions, but with the progress of recruitment this possibility will be practically exhausted by 1962. The Board believes that in many cases it may be more economical to meet the demands arising out of the increasing momentum of technical assistance activities, by having recourse to the employment of temporary assistance financed from the Regular Budget.

12. With these considerations in mind, the Board regards the proposed addition of 14 Professional and eight General Service posts [2] the minimum necessary to implement the new activities which it is desirable for the Agency to undertake in 1962. Of the above Professional posts, four at the P-1 level represent the reclassification of an equal number in the General Service category. It has been apparent for some time that in certain instances members of the General Service staff have been assigned tasks, the duties and responsibilities of which are those of a Professional officer. These include the work of junior editors in the Division of Scientific and Technical Information and of junior accountants and finance officers in the Division of Budget and Finance. In almost all the specialized agencies such work is regarded as appropriate to the junior Professional category and it is considered that the Agency should also now accord it similar recognition.

13. Not all the activities under the proposed program can be undertaken with the staff proposed in the manning-tables. The Board believes that certain special tasks which do not justify the employment of Professional staff on a full-time basis should be carried out by consultants, and funds for this purpose have been budgeted.

[1] GC(III)/RES/51, part A, paragraph 3(b).

[2] See Annex II.

14. In the estimates for 1961 provision was made for the non-recurring cost to the Agency of appropriately renovating a building adjacent to Headquarters so that the entire Secretariat could be housed at one place. This cost was estimated at \$187 000. Progress in renovating this additional space has been sufficient to permit the transfer to that building of the staff of the Division of Language Services and the majority of the other staff previously housed in the Neue Hofburg building. The planning and furnishing of a new Boardroom is taking longer than was originally anticipated, but it is hoped also to complete the transfer of the Board's premises from the Neue Hofburg by the end of 1961 or the beginning of 1962.

D. THE WORKING CAPITAL FUND

15. The General Conference, at its first special session in 1957, fixed the level of the Working Capital Fund at \$2 million. [3] Despite the progressive expansion of the Agency's activities, the Board does not consider it necessary to propose any increase in this level, because a substantial part of assessed contributions has generally been paid during the first half of the year, and there is no reason to believe that this pattern will change in 1962.

16. The Board proposes that in 1962 the Working Capital Fund should be used not only for the purposes approved in previous years, but also temporarily to finance the additional costs that would arise, should the sixth regular session of the General Conference last for more than the customary two weeks. This is an eventuality that must be foreseen because under Article XVIII. B of the Agency's Statute a general review of its provisions may take place at that session.

17. Rather than propose a budgetary appropriation for this purpose, the Board considers it preferable that the Director General should be authorized to advance from the Working Capital Fund such an amount as may be required to meet expenditures arising from a prolongation of the sixth regular session of the General Conference should this become necessary.

18. Further, CCAQ, at meetings during March 1961, approved for submission to ICSAB and ultimately to the General Assembly of the United Nations, certain proposals for an upward revision of the salary scales of Professional staff. At this time, neither the scope of the proposed revision nor the date at which it may become effective can be foreseen. It may however affect salaries and wages and common staff costs during the year 1962, and for that reason the Board proposes that the Director General be also authorized to make advances from the Working Capital Fund during that year to meet any additional costs in respect of these items resulting from such revisions as the General Assembly of the United Nations may approve.

19. Accordingly, the draft resolution on the use of the Working Capital Fund in 1962, presented in Annex III, authorizes the Director General to meet the needs referred to in paragraphs 16-18 above. The Board intends, when submitting the Agency's budget estimates for 1963, to make the necessary provision to reimburse to the Working Capital Fund such advances as may be made under that authority, to the extent that it is not possible to meet these requirements through transfers between sections of the budget, and will keep these requirements in mind when considering transfers for other purposes.

E. SUBMISSION OF THE BUDGET TO THE UNITED NATIONS GENERAL ASSEMBLY

20. After adoption by the General Conference, and in accordance with Article XVI of the Relationship Agreement with the United Nations, the Regular Budget will be reviewed by ACABQ, which will report thereon to the General Assembly. The comments of ACABQ on the form of previous budgets and on the Agency's administrative and financial practices have been taken into account in the development of the budget for 1962.

[3] GC. 1(S)/RES/7.

CHAPTER I. THE AGENCY'S PROGRAM

A. GENERAL

21. An outline of the program which, in the opinion of the Board, the Agency should carry out in 1962 is presented in this chapter. The expansion of certain of the Agency's scientific programs proposed for 1962 should not be regarded as minimizing the great importance which, in the opinion of the Board, should continue to be attributed as far as possible to rendering technical assistance to countries requiring it (provision of fellowships, visiting professors, experts, equipment, scientific documentation, etc.). The initial activities to help start or develop nuclear energy programs in various countries are beginning to bear fruit, and as a consequence new needs are emerging that require action designed to meet the similar requirements of several Members. The Agency's program must keep pace with these developments, and account must be taken of the experience gained in the past, and the suggestions and recommendations of the General Conference and SAC.

22. The desirability of developing long-range objectives so that the limited resources of the Agency may be used to produce the greatest possible impact is of course recognized. The Board intends to continue its study of the problems connected with the formulation of a long-term program for the Agency and hopes to be able to bring more specific proposals to the attention of the General Conference at its sixth regular session. The five-year appraisal which was submitted last year to ECOSOC afforded an initial opportunity of evaluating basic trends for the Agency's activities. The preparation of the Agency's comments on the survey of the main trends of inquiry in the field of natural sciences (prepared for the United Nations under the aegis of UNESCO) has offered another occasion for evaluating future perspectives.

23. As the results of the Agency's training programs and its initial series of technical assistance projects become evident, it should be possible to determine those activities in respect of which it may be most useful to concentrate on action at the international level in order to assist Member States that are less advanced in the development of nuclear energy. One trend which is already discernible today is the desirability of supplementing the fellowship program by creating training opportunities in the less-developed regions themselves, such as training courses and, ultimately, national and regional training centers. The stage will soon be reached when special attention will have to be given to helping Member States make effective use of the nucleus of scientists and technicians trained under the Agency's auspices. New laboratories must be assisted through the award of research contracts, and greater efforts will be required to supply the experts and equipment necessary for starting nuclear projects on which these scientists are to be employed. The programs of training, research contracts, and technical assistance should thus be correlated in such a way as to promote co-ordinated development.

24. The dissemination of information by means of scientific conferences and meetings should be continued, but in order that careful preparations may be made so as to obtain even more useful results, the number of such meetings will have to be kept within reasonable limits. In regard to documentation, the Agency, because of its position as the central recipient of non-classified information from its Member States, is uniquely placed to assemble and disseminate the latest results of nuclear research and development and to prepare special studies and surveys on selected topics. This stimulates further research and at the same time helps to avoid wasteful duplication of effort in national research institutions.

25. A third major program of the Agency relates to radiation protection. The elaboration of recommendations on transport, waste disposal and safety measures for laboratories and research reactors has proved useful even to the more advanced Member States. These activities must be continued and should be followed up in most instances by the incorporation of the recommendations into new administrative and organizational rules and regulations or into existing international conventions and, in special cases, by the elaboration of new conventions.

26. Finally, as the scientific staff of the Agency gains experience, it can render an increasing number of services to Member States. Such services will presumably be welcome in many fields of work such as hazards evaluations for nuclear installations and advice on radiation protection and safety measures in Member States. Scientific services can also be rendered by the Agency's Laboratory for which 1962 will be the first full operational year.

B. RESEARCH ON, DEVELOPMENT AND APPLICATION OF NUCLEAR ENERGY

I. NUCLEAR POWER AND REACTORS

1. Economics

27. Studies on the economics of nuclear power represent a basic and continuing activity of the Agency, both on account of their relevance to many other Agency projects and the specific directives given by the General Conference. The increasing availability of technical and economic data on nuclear power production will make it possible to broaden and deepen these studies, which were initiated in 1959 and continued in 1960 and 1961. Reports on nuclear power costs were published in 1960 and 1961 for consideration by the General Conference. Similar reports will be prepared periodically.

28. The Conference on Small and Medium Power Reactors, held in Vienna in 1960, provided valuable material for the guidance of developing countries. Further technical and economic information of this type will be assembled and disseminated. The opportunities of being able to follow at first hand the small and medium power reactor program in the United States and elsewhere will be utilized as in 1960-61. Staff members will visit, as appropriate, the reactor sites at regular intervals and report on their findings.

29. Work on the methodology of nuclear power costing was initiated in 1960 and an advisory panel was convened. The work is continuing in 1961 and it is planned to widen its scope by an analysis of nuclear power costing within the framework of a developing power network.

30. In 1960 the Agency participated in a nuclear power survey in one Member State and sent a nuclear power survey mission to another. Two similar surveys are planned for 1961 and it is expected that there will be a demand for two such missions also in 1962. The co-operation of the United Nations and its regional economic commissions will be sought as and when appropriate.

31. Data on world uranium reserves and production capacity will be assembled and expert estimates made of uranium requirements over the next 10 to 15 years.

32. A study on the economics of various techniques of handling radioactive wastes is also planned, as great discrepancies are found in the few published evaluations, and the choice between different disposal methods may have an important bearing on the fuel cycle cost.

2. Reactor science and technology

33. The Directory of Nuclear Reactors, three volumes of which have been published, will be kept up-to-date and further volumes will be issued so that this publication may continue to be a useful and authoritative work.

34. The studies on selected topics in reactor physics - Heavy Water Lattices (1959), Codes for Reactor Computations (1960), and Intermediate and Fast Reactors (1961) - will be continued and a meeting of specialists on light water lattices will be convened in 1962; this subject is of particular importance in improving both the economy and the safety of water moderated reactors.

35. The participation in the research project on integral reactor data carried out in Norway with the reactor NORA will be continued in 1962. The Agency participates in drawing up the program, and selecting some of the scientists who comprise the international research team. It also follows the implementation of the research program, the results of which will be made available to all Member States.

36. Measurements of nuclear data bearing on reactor design are made in a number of countries. An Agency panel which met in 1961 stressed the need for a compilation and correlation of such data on an international basis and it is planned, in co-operation with other interested international bodies, to start this as a regular activity in 1962.

37. The Agency has initiated a survey of research on the thermochemical properties of nuclear materials following a recommendation by SAC. The importance of this subject to advanced nuclear technology makes it desirable to organize a symposium in 1962 for a critical discussion of thermochemical data and high temperature phenomena of nuclear materials. After the symposium, specialists will compile and review reliable thermochemical data of interest to advanced nuclear technology.

38. Some aspects of the physics of condensed matter are also important to reactor design. A successful symposium on inelastic scattering of neutrons in solids and liquids was organized in 1960 and the participants have already urged that a similar meeting be organized in 1962.

39. Another aspect of solid state physics - the effect of radiation on solids and reactor materials - is also fundamental to reactor design. A symposium on this subject, originally planned for 1961, will be organized in 1962, for the presentation of recent advances in the physics of solids, using nuclear radiation as a research tool, and in the design and choice of materials for reactors.

40. It is expected that the number of research contracts for power reactor physics and technology, especially for small and medium size applications, will be maintained at the increased level of 1961.

41. Provisional titles for 1962 in the Review Series include: Fuel Elements Technology; Control Rod Mechanisms and Criticality Studies.

3. Research co-ordination and exchange of information

42. The role that the Agency can play in assembling information and promoting co-ordination in nuclear research and the utilization of the many research and prototype power reactors in operation or in the planning stage has been stressed repeatedly, as for instance by SAC.

43. At a symposium in 1960, the work that was being and could be done in pile neutron research was discussed; in 1961 a symposium on the programing of research reactors will be organized. As a follow-up to this symposium it is planned in 1962 to convene ad hoc expert groups which can give advice on the research and training best suited to various reactor types.

44. The second Symposium on Inelastic Scattering of Neutrons in Solids and Liquids - the first was held in 1960 - will serve to co-ordinate research and point to interesting fields of study which might be usefully explored. The same is true of the 1962 Symposium on Radiation Damage in Solids and Reactor Materials, which concerns a subject of research requiring the use of expensive reactors with high fluxes.

45. A symposium in 1962, which will be of assistance to nuclear laboratories, is that on neutron detection, dosimetry and standards.

46. The Agency will continue to play the co-ordinating role it has assumed in convening such symposia, thus contributing to a fuller and more practical use of the research facilities offered by the ever increasing number and types of research reactors in Member States.

47. Information on operating experience and staffing requirements of power reactors will also be assembled, analyzed and exchanged in 1962, as considerable operational experience would have been gained by that time in a number of power stations.

48. The award of research contracts in a well-planned, balanced manner will be facilitated by the Agency's other efforts to co-ordinate and stimulate a rational use of nuclear research facilities.

4. Fuel cycles and materials

49. The Agency is in a position to provide advice to Member States on all aspects of the production, processing, fabrication and utilization of nuclear materials. This advisory service is of a continuing nature and increases in usefulness and volume as experience is gained. It is also expected that a number of requests for technical assistance and applications for fellowships will be in connection with the prospecting for and processing of nuclear ores.

50. Although the world supply of uranium will probably exceed the demand for some years to come, much prospecting is still being carried out. The techniques and equipment employed are inadequate in many countries, whereas in others rapid technical advances have been made in recent years. It may therefore be desirable to consider the holding in 1962 of a symposium on the methods of prospecting for and evaluating nuclear raw materials. A study of methods and techniques for the production of uranium chemical concentrates is also planned.

51. The Agency's Laboratory will be in a position to render a number of quality control services for nuclear materials, such as general chemical analysis - including activation analysis - mass spectroscopy and optical spectroscopy. It is planned to arrange for continuous expert advice on the methods to be employed.

52. The effect of corrosion is a consideration in the choice of materials for reactor construction, of as much importance as the nuclear properties of the materials. A good understanding of corrosion phenomena requires thorough study, and to make the results of existing progress more generally available a conference will be organized in 1962. The conference will contribute to the knowledge of corrosion characteristics and the behavior of materials and alloys and should be particularly useful to nuclear engineers and reactor designers.

53. The symposium on thermochemical data and high temperature phenomena will also help in making available to Member States more recent knowledge on nuclear materials.

54. Studies on methods of radioactive waste disposal, including the solidification of liquid wastes, the disposal into geological structures, and long-term storage, will be actively continued.

55. The publication of an inventory of research projects relating to the disposal of radioactive waste will commence in 1962. Such an inventory will help to avoid duplication and allow scientists working on allied subjects to arrange a direct exchange of information.

56. It is expected that studies on materials for reactor construction and the treatment of spent fuel will be published in the Review Series in 1962.

5. Fusion

57. The Agency's journal on thermonuclear fusion, publication of which was started in October 1960, will be issued every quarter. An extensive bibliography has been prepared and will be published before the opening of the international Conference on Plasma Physics and Controlled Nuclear Fusion Research which the Agency is organizing in Salzburg in September 1961. The discussions at this conference may reveal a need for the Agency to plan some activities to co-ordinate plasma physics research, especially that being done in smaller laboratories which have recently started such work. It may also be desirable to continue holding conferences from time to time on the subject of plasma physics and controlled nuclear fusion research.

II. RADIOISOTOPES

1. General

58. For the majority of the Member States it is in the application of radioisotopes that immediate and practical benefits from nuclear energy are expected. A considerable proportion of the Agency's efforts and resources are consequently devoted to assisting them to introduce the various techniques for the utilization of radioisotopes.

59. To a large extent the provision of experts and equipment by the Agency is for the purpose of developing the various uses of isotopes. Many of the fellowships and research grants awarded each year are for specialization in such uses. The demand for training courses for this purpose is also heavy and an increasing number of research contracts are being granted for the investigation of techniques that promise new uses for radioisotopes. This general trend will certainly continue in 1962 and beyond. For instance, requests for several specific regional training courses in isotope applications were received in 1961, not all of which could be accommodated, and the demand for 1962 seems larger even at this stage.

60. The two mobile isotope laboratories will continue to be utilized for small training courses and demonstrations at universities, scientific institutions and hospitals in less-developed Member States.

61. In awarding research contracts for studies on radioisotope applications, special attention is given to the needs and interests of less-developed countries, and it is planned to increase substantially the awards which can be of direct value to many Members. Only about ten per cent of the research contracts are presently awarded for research on radioisotope applications; it is planned to increase this to approximately thirty per cent.

62. The International Directory of Radioisotopes and Labelled Compounds, in which availability and prices are listed, will be kept up-to-date and revised editions will be published at suitable intervals.

63. A study of the economics of radioisotopes - production, distribution, import and export - was begun in 1960 primarily to assist countries, starting or planning to acquire facilities for the production of isotopes, to assess the situation. This study will be followed by one on the economic impact of isotope utilization; the estimates made in some of the countries that are advanced in nuclear technology are very encouraging, but no agreed methodology or complete studies seem to be available.

64. It is expected that the Seminar on the Practical Applications of Short-Lived Radioisotopes Produced in Research Reactors will also prove of particular value to countries which have recently started or are planning research reactor projects. The seminar will deal primarily with problems in the production and processing of short-lived isotopes and their uses in biological research and medicine.

65. Several guides and handbooks on the uses of radioisotopes and the techniques employed are planned for 1962. It is the Agency's intention to collate and consolidate available information on proved and possible uses of radioisotopes in medicine, agriculture, industry and research, and to draft recommendations for such uses.

2. Medicine

66. Efforts to co-ordinate clinical research and the development of methods in therapy using radioisotopes will be continued. The symposium on tropical medicine held in 1960 proved that a closer collaboration between scientists, often working in relatively isolated laboratories and in different continents, could be achieved without too much expense and effort, and as a first step it is planned to seek the guidance of a small group of experts to advise on research priorities.

67. Measuring the thyroid radio-iodine uptake is a diagnosis now commonly used in many countries. A group of consultants has agreed upon simple standard methods of measurement as well as on the technical details of an international calibration project. The project, starting in Europe in 1961, will be extended to other regions in 1962.

68. A program for the introduction and utilization of radioteletherapy units was started early in 1959. Assistance has been given by making inventories of such equipment and installing it. The rapid increase in the number of radiocobalt and radiocesium sources, particularly in less-developed countries, makes it advisable to seek the assistance of specialists to review current problems and map out future work.

3. Agriculture

69. Scientists in less-developed countries, where agriculture is usually the principal activity, as well as the Agency's own experts, have pointed to the need for an exchange of scientific experience in the use of isotopes in soil-plant nutrition studies. A symposium on this subject is therefore planned for 1962. The emphasis will be on practical research aimed at increasing crop production but the symposium will also be useful in evaluating the distribution of radioisotopes in biological systems.

70. Encouraged by the results of the discussions at the Agency's symposium on the uses of isotopes in entomology which was held at the end of 1960, a study has been started giving particular attention to the scientific and economic possibilities of large-scale control of insects by radiation. This work which holds out particular promise for agricultural countries will be developed further in 1962.

71. In keeping with the general close co-operation with FAO, it is planned to co-sponsor in 1962 a scientific meeting on the use of radioisotopes in animal physiology and nutrition; this can be regarded as a follow-up to the Agency's conference in 1961 on radioisotopes in animal biology and the medical sciences which is being co-sponsored by FAO and WHO.

4. Hydrology

72. Radioisotope techniques have proved particularly efficient in all hydrological investigations and thus provide a useful means of carrying out studies of special interest to countries situated in arid or semi-arid regions. A world-wide survey of the concentration of hydrogen and oxygen isotopes in natural water through the use of tritium has been started, in close co-operation with WMO and national laboratories. The Agency's main concern is with evolving techniques which could be placed at the disposal of other agencies that are primarily concerned with this work. The project should be advanced enough in 1962 to permit an expert evaluation of the results.

73. In connection with this project, tritium standards will continue to be distributed and tritium counters and concentration units developed. Various studies on radioisotope techniques in hydrology will be undertaken. It is also hoped to pay special attention to making quantitative measurements of siltation, by research in the laboratory and practical work in the field.

5. Industry

74. Although the industrial applications of isotopes are wide and varied in countries that are advanced in nuclear technology, they have not yet been introduced in many other countries on the scale that their usefulness seems to warrant. The two conferences held by the Agency - one in Warsaw in 1959 on large radiation sources, and the other in Copenhagen in 1960 on their specific industrial utilizations and techniques - were partially intended to draw the attention of industry to the existing possibilities.

75. It is thought that a useful reference to possible industrial uses of radioisotopes might be provided by the publication of a subject list, as in most of the existing literature the classification has been done according to the techniques used. The proposed reference lists would include brief explanations of the principles and methodology and selected references to literature on the subject.

C. SERVICES, EQUIPMENT AND SUPPLIES

I. MISSIONS

76. About 40 countries will have been visited by preliminary assistance missions by the end of 1961 and it is expected that in 1962 only one such mission will be needed and that it will visit some countries in Africa. The States visited have recognized the usefulness of these missions, as the advice of the various specialists on the teams has assisted them to make a realistic assessment of their nuclear energy programs and the possibilities of obtaining outside aid for their implementation.

77. Three years have passed in many cases since the visit of a preliminary assistance mission and it is considered most desirable to renew the direct contacts, discuss the progress of the programs initiated and advise on the possibilities of further assistance by the Agency after such an interval. It is therefore planned to organize follow-up missions for this purpose; these missions will be smaller in composition and shorter in duration. Two such missions to countries in South East Asia and the Far East, and in the Middle East, are scheduled for 1961 and two are being planned for 1962.

78. Three special missions of nuclear power experts, probably assisted by economists from the United Nations, may also be required in 1962.

II. EXPERTS

79. Requests for the provision of experts have been steadily increasing and it is expected that there will be approximately twice as many experts in the field in 1961 as in the previous year. Although the requirements for 1962 may show some increase over 1961, it will not be possible to provide for additional requirements owing to lack of funds.

80. The requests for expert advice cover almost every aspect of the peaceful uses of nuclear energy, but the emphasis so far has quite naturally been on the applications of isotopes in medicine and agriculture, and on geology. The medical uses of radioisotopes can be introduced in hospitals and many advanced agricultural research stations can make good use of radioisotopes even if the country is not advanced in nuclear technology. Prospecting for and analysis of nuclear ores can in most cases be combined with general geological surveys which are under way or planned in most countries.

81. Numerous requests are also being received for assistance in establishing nuclear physics laboratories in national universities or scientific institutions. The setting up of such laboratories can often be regarded as the first step in the introduction of national programs for the development of nuclear energy.

82. A number of less-developed countries also ask for planning consultants, who can advise on nuclear energy projects to be initially undertaken, the phased introduction into national development plans of the applications of radioisotopes, and the establishment of the necessary administrative framework and services.

83. More and more countries are requesting the services of suitably qualified industrial engineers to assist them in utilizing radioisotopes for various purposes, such as the testing of construction materials. Experts in electronic equipment are also in demand.

84. Experts in health physics and radiation protection are wanted by practically all countries which have started or are embarking on nuclear energy programs or are using radioisotopes in hospitals.

85. Approximately 70 experts are expected to be in the field in 1961; scarcity of funds has made it impossible to satisfy more than the most urgent requirements. Only a slight increase has been planned for 1962 as careful and realistic account has been taken of the resources that are likely to be available, and it will be necessary to continue planning the program so as to give priority to those requests which are of most immediate importance.

III. EQUIPMENT

86. The investment necessary for the development of atomic energy, even in the initial stages, is considerable, and consequently requests for equipment have understandably been large. Here again, limited funds tend to prevent a more rapid expansion.

87. Requests for equipment vary from simple monitoring equipment to expensive radiation sources, and from instruments for prospecting for and analyzing raw materials to equipment for isotope applications.

88. Equipment is also provided in connection with research. The expected increase in the volume of research contracts to be placed with laboratories in less-developed countries may result in an increase in the requirements of equipment necessary for such projects.

89. In addition to selecting and supplying equipment under technical assistance projects, an advisory service on equipment is also provided to requesting Member States. This service is expanding and it is planned to publish some studies and handbooks on new developments in instrumentation and equipment.

IV. SUPPLIES

90. Although the Agency's function as an intermediary for the supply of nuclear materials has been on a very much smaller scale than was expected five years ago, some transactions have been completed and others are now being informally discussed. This function may increase, although slowly and modestly, as the utilization of nuclear energy develops in Member States.

91. The services to be rendered and the duties of the Agency in the supply of nuclear materials are not limited to making arrangements for the procurement, processing, fabrication, shipment and delivery, and in appropriate cases the analysis and technical control of such materials. Experience has shown that each supply transaction raises new legal and statutory problems and part of the Agency's function as an intermediary will continue to lie in facilitating and expediting the conclusion of supply agreements.

D. SCIENTIFIC INFORMATION

I. SCIENTIFIC MEETINGS

92. The proposed program of scientific conferences, symposia and seminars is approximately of the same size as in the two previous years and is set out in paragraphs 298-302 below.

93. The meetings that are planned will deal with subjects of importance to reactor designers and nuclear engineers; they will also deal with nuclear physics and the utilization of nuclear research facilities; the general subject of radiological protection and the effects of radiation, and the practical applications of radioisotopes. One seminar will be devoted to theoretical physics.

94. In addition, the Agency will co-sponsor a number of scientific meetings of direct interest to its own program of work.

II. PUBLICATIONS

95. The publications program stems very largely from the scientific and technical activities of the Agency, a publication representing in many cases the end product of a project, e. g. the proceedings of a scientific meeting or the recommendations of a panel. Other publications such as the Review Series, the various directories and the Fusion Journal are issued in accordance with the Agency's statutory function to foster the exchange of scientific and technical information.

96. It is expected that the publications program for 1962 will be only slightly larger than that of 1961.

97. No marked change in the types of publications is contemplated; the main categories will therefore be:

- (a) Proceedings of conferences and symposia;
- (b) Directories, catalogues and lists, as for instance further volumes of the Directory of Nuclear Reactors, a catalogue of the industrial applications of radioisotopes, lists of nuclear energy establishments in Member States;
- (c) Manuals in the Safety Series;
- (d) Training manuals;
- (e) Special studies, for instance on the economics of nuclear power or on nuclear instruments;
- (f) Bibliographies;
- (g) Technical reports, such as the results of research contracts, and reports of preliminary assistance missions and technical assistance experts;
- (h) Periodic publications, such as the Review Series and the Fusion Journal; and
- (i) General information, e. g. the Bulletin, brochures, etc.

98. Special importance is being attached to publishing the proceedings of scientific meetings as soon as possible in order to increase the usefulness of this major activity for the distribution of scientific information.

III. SCIENTIFIC DOCUMENTATION

99. Scientific documentation will continue to be provided to Member States through the publication of selected reviews, bibliographies and reference lists, as well as through studies on specific problems compiled upon individual request. Recent developments in

the peaceful uses of nuclear energy will continue to be discussed in issues of the Review Series, which are prepared in co-operation with scientists from Member States. Literature on selected subjects will be listed in bibliographies and attempts will be made to organize on an international scale the compiling of information - in the shape of tables, charts, etc. - on certain aspects of nuclear energy. Information on current accessions and on documentation will be published in the list of references, list of bibliographies and list of periodicals that are regularly issued. Publication of the list of institutions concerned with atomic energy throughout the world will be continued.

100. In order to promote systematically the exchange of scientific information, liaison will be maintained with documentation centers in Member States and specialized international organizations. Assistance will be given to less-developed Member States for the establishment of national and regional information centers and the improvement of their scientific documentation services. Measures will be taken to improve the international exchange of scientific abstracts, which may be necessary as a result of the study called for by the General Conference [4]. Co-operation with appropriate authorities in the development of coding and classification systems for nuclear energy will be continued.

IV. LIBRARY

101. The Library receives annually about 12 000 research reports from Member States and acquires some 6 000 books and 600 periodicals. It is expected that the services that the Library can render to Member States will be significantly increased in 1962, partly as a result of better equipment such as that needed for the production of microfilms. Requests for such services are increasing steadily and so is the supply of useful material from Member States.

102. Assistance to Member States in the organization of nuclear science libraries will continue to be given on request.

V. SPECIAL PROJECTS

103. In connection with the resolution adopted at the fourth regular session of the General Conference regarding the possible establishment of an international center for theoretical physics [5] some preliminary work may have to be undertaken during 1962.

[4] GC(IV)/RES/78.

[5] GC(IV)/RES/76.

E. EXCHANGE AND TRAINING

I. FELLOWSHIPS

104. The fellowships program has had high priority ever since the inception of the Agency's activities. The number of awards including those financed from EPTA funds rose from just over 200 in 1958 to slightly less than 400 in 1959 and increased to 428 in 1960. On the basis of funds that are expected to be available, no more than 360 awards can be made in 1961 - approximately half of the estimated number of applications. Some improvement is, however, expected in 1962.

105. It was possible to start a substantial fellowships program at an early stage and maintain its impetus not only because it met priority demands from countries less advanced in the development of nuclear energy but also because, in addition to voluntary contributions of money, the Agency received generous co-operation from some Member States who placed free fellowships at its disposal and provided opportunities for Agency fellows to study in their research and training institutions. In 1962 it is hoped to make even fuller use of these facilities.

106. The emphasis in the program has so far been on the applications of radioisotopes, particularly in medicine and agriculture, on reactor engineering, general nuclear physics, nuclear chemistry, health physics, nuclear chemical engineering, and geology. It is now considered desirable to expand the number of awards to technicians who are urgently needed in almost all countries that are developing their nuclear energy programs.

II. RESEARCH AND SPECIAL GRANTS, AND VISITING PROFESSORS

107. A somewhat slower start has been made in awarding research and special grants, as the costs are considerably higher, and in any case training needs were considered to be of greater urgency. Furthermore, in the years immediately following the establishment of the Agency there was little demand for these grants. However, as Member States have started active research and development programs, requests for the training of specialists and for research opportunities have increased. It is expected that some 15 deserving applications will henceforth be received each year.

108. The fellowships program takes the trainees to the instructors but in many cases it is possible - and probably more efficient and economical - to reverse the process and provide training in the countries where it is needed. One way of doing so is to send visiting professors. Sixteen instructors were sent to eight countries in 1960, and many requests had to be left unsatisfied owing to the lack of funds. The number of such requests for 1961 already amounts to 23, and this program is expected to assume increasing importance.

III. TRAINING COURSES

109. Another method of organizing training in the less-developed countries themselves is through regional or national training courses. Again, the trend is towards a considerable increase in this type of activity. More requests are being received than existing resources can satisfy. There was a demand for eight courses in 1961 and the demands for 1962 are already at this early date even greater. Many of these courses are co-sponsored by other organizations; some will be financed under EPTA, but in spite of this it is considered essential to devote in the coming years a larger proportion of the Agency's own resources to this promising training program. Thought is also being given to the possibility of establishing regional training centers, in the light of the experience gained from the training courses.

110. The Agency's two mobile isotope laboratories also bring training to the doorsteps of the trainees. Approximately 600 trainees have taken part in courses organized in the Far East, Latin America and Europe with the help of these laboratories. This useful and relatively inexpensive activity will continue in 1962.

F. SAFEGUARDS

111. It is likely that modifications and additions to the approved principles and procedures will be needed in the light of operating experience. For this purpose a general review will be carried out in 1962.

112. It is planned to study provisions for certain types of nuclear facilities not covered by the present safeguards system.

113. Safeguards provisions for relevant Agency projects will continue to be prepared for incorporation in project agreements; safeguards provisions in existing agreements will be kept under review.

114. Indications from Member States make it seem likely that the Agency will soon be requested to administer the safeguards provisions in certain bilateral agreements and work in this connection is expected to increase in 1962.

115. Research on measurement techniques for nuclear materials will continue to be sponsored, and assistance will be given to Member States in methods of accounting and storing.

116. Agency projects requiring safeguards, and the administration by the Agency of the safeguards of bilateral agreements, will necessitate the application of safeguards by Agency inspectors. Procedures will be developed for applying safeguards to various types of installations.

G. SAFETY

I. STANDARDS, REGULATIONS AND MANUALS

117. Basic safety standards, applicable to Agency assisted operations, have been established but must be continuously developed and kept under review. Safety procedures have also been formulated and are being applied to all relevant Agency projects.

118. Regulations for the transport of radioactive materials have been adopted, but it is considered essential to study the need for revisions in the light of experience in 1962.

119. The practicability is being studied of establishing international regulations based on the recommendations of the scientific panels on radioactive waste disposal.

120. The compilation and publication of manuals on selected topics concerning protection against radioactivity has proved of value in maintaining adequate standards and in harmonizing current practices in Member States. It is proposed to continue this activity; likely topics to be studied in 1962 are health physics services in small nuclear centers, low level waste disposal, and the assessment of internal radioactive contamination.

121. The need for visual aids in presenting recommended techniques and methods of health protection, particularly in new or developing centers, is generally acknowledged. It is planned to continue, on a small scale, to produce training films for this purpose.

122. Increasing importance will also be given to training courses in health and safety, and it is proposed to compile a guide on the content and methods of courses in health physics.

II. SAFETY OF NUCLEAR INSTALLATIONS AND OPERATIONS

123. Member States requesting assistance in the implementation of safety measures and regulations in their nuclear establishments and in the evaluation of hazards will continue to receive it; such assistance will also be given in connection with the application of safety standards to Agency assisted operations.

124. Some hazards evaluations of reactor plants have already been carried out at the request of Member States, and it is expected that this service will be continued, perhaps at an increased rate. The experience gained in this work has shown that there are no established practices for evaluating reactor hazards and it is therefore planned to organize a symposium in 1962 on the methodology of hazards evaluation which, it is hoped, will yield results making it possible to arrive at a systematization of methods.

125. A thorough exchange of views on reactor siting policies seems timely, both because of the potential impact on reactor economics and because of the public concern. Specialists will therefore be invited to submit their opinions on these problems with a view to arriving at some recommended standards of reactor siting criteria.

126. Most nuclear accidents which have occurred so far have been caused by the inadequacy of built-in safety features in installations or by non-observance of sound operational procedures by the staff concerned. It is therefore considered important to evaluate the extent to which licensing procedures should be established both for the plants and for their operators. Studies on this subject will be initiated in 1962.

127. The Agency has already been invited to collaborate in the safety evaluation of one harbor, exclusively in connection with its use by nuclear propelled merchant ships.

128. It has been found, particularly in regard to health and safety, that an important function which the Agency can discharge is to bring together scientists and technicians from different disciplines to discuss common problems. A symposium on health and safety in the nuclear raw materials and fuel industries will be held in 1962 and will be attended by health physicists and engineers.

129. Field missions of health physicists will continue to be sent on request to Member States.

130. Assistance for environmental and pre-operational surveys at reactor sites will be made available.

131. It is planned to assist in establishing services for film-badges and for bio-assay techniques of internal contamination, in some cases perhaps most suitably on a regional or multi-regional basis. A survey of whole body counting facilities in Member States, which will be published in 1961, will be kept under review.

132. A service whereby Member States will receive, upon request, reference sources of known radioactive content required for calibration of measuring instruments will be instituted after the Laboratory starts operations. Measurement services which would benefit from this activity would include those checking radioactive contamination in nuclear establishments.

III. THE EFFECTS OF RADIATION ON MAN AND HIS ENVIRONMENT

133. A large proportion of the Agency's research contracts have been awarded in radiobiology and health physics and for studies of the short- and long-range effects of waste disposal. The efforts now being made to restrict these contracts to topics which give certain promise of concrete results will be continued.

134. Measurements for radioactive contamination of samples from the environment are being carried out on request and the results transmitted to the State concerned and to UNSCEAR. The program now includes the measurement of a number of radionuclides; scientists from Member States will continue to receive in-service training in this work.

135. The recent progress in molecular biology contributes greatly to the understanding of problems of radiation damage; in addition to the research contracts awarded in this subject, a symposium on the biological effects of ionizing radiation at the molecular level will be organized jointly with UNESCO in 1962. Another symposium similarly organized will discuss delayed radiation damage with particular emphasis on the relative importance of the chromosomal and intercellular factors.

136. A scientific meeting on the diagnosis and treatment of radioactive poisoning will be held in 1962 in co-operation with WHO as a continuation of the joint meeting in 1960 on acute radiation injury.

137. Studies in the metabolism of the bone-seeking isotopes calcium-47 and strontium-90 will continue to be encouraged and assisted. A meeting of the leading scientists engaged in research on calcium-47 will be held at the end of 1961 and they will be asked to make recommendations as to how the Agency can best further and co-ordinate such research.

138. A study of the techniques of a coding system for the establishment of a central register of persons contaminated by strontium-90 has been started and it is planned to establish a world register of this type in 1962. This would make it possible to obtain reliable information on the relationship between the amounts of deposited strontium and the delayed biological effects.

139. Artificial radioactivity tends to accumulate to a particularly high degree in slow-growing plants such as moss, under cold climatic conditions. In co-operation with interested international organizations, an investigation of radioactive nuclides in such plants and of the transport of these nuclides from plants to animals and finally to man is planned. Particular emphasis will be laid on the study of biophysical factors influencing the movement of radionuclides through the food chain.

140. Studies and research will continue on preventative measures against radioactive contamination, but it is also planned to engage in studies on decontamination methods.

141. The need for training in neutron detection and dosimetry techniques is felt particularly strongly in countries where nuclear establishments are in the process of rapid development; it is planned to organize a symposium on neutron detection, dosimetry and standards in 1962 as a follow-up to the symposium on selected dosimetry topics held in 1960.

142. Absolute measurements of the absorbed dose in rads from external radiation will be made in the Laboratory and neutron and gamma radiation standards will be established which can be used for the control of neutron dosimeters of Member States as part of the entire work on calibration and standardization of radiation measuring instruments.

143. The research project on the effects of radioactivity in the sea, which is being carried out jointly with the Principality of Monaco and the well-equipped Institute of Oceanography situated there, will be in full operation in 1962. The project is intended to contribute to:

- (a) The acquisition of knowledge concerning the movement of water and of marine organisms and the deposition of organic and inorganic matter;
- (b) The special study of the distribution and redistribution in marine organisms, ranging from phytoplankton to fish, of various forms of radioactive materials already existing in or that may be introduced into different locations; and
- (c) The effects of radioactive materials at various concentration levels on the marine ecology.

IV. NUCLEAR ACCIDENTS

144. The question of rendering emergency assistance to Member States in the event of a nuclear accident was first considered by the Board in 1959, and the resolution adopted by the General Conference at its fourth regular session, on the use of the Working Capital Fund in 1961 [6], authorized the Director General, subject to certain conditions, to make advances for this purpose. A plan to arrange on request for the provision of emergency assistance is under preliminary study, but no decision has yet been made in regard to it. The Agency's role will primarily be that of an intermediary, although it may in some cases be called upon to play a more active part.

145. As a necessary prerequisite to such an emergency service and also as a scientific information service to Members, it is intended to start collecting all information on nuclear accidents. The dissemination of reliable information on the causes, consequences and handling of accidents would by itself constitute a preventative measure and be of help in dealing with an emergency.

146. A survey of radiation doses received by persons involved in nuclear accidents will be started.

V. LIABILITY AND INSURANCE

147. Although it is expected that the Agency's current work on nuclear damage in connection with the operation of land-based reactors and the transportation of nuclear materials will be largely completed by the end of 1961, it is possible that some further work will remain to be done.

148. Work relating to the conclusion of a convention on the liability of operators of nuclear ships will continue into 1962. At the Diplomatic Conference on Maritime Law held in Brussels in April 1961 all but two substantive articles of a convention were accepted. A resolution was adopted setting up a Standing Committee to prepare the documentation for an

[6] GC(IV)/RES/73.

ad hoc diplomatic conference, to be convened as soon as possible thereafter by the Belgian Government and the Agency. The hope was expressed that the Standing Committee, on which the Agency would be represented, could meet in the last quarter of 1961, and that it might be possible to convene the ad hoc diplomatic conference early in 1962.

149. It is also planned to take up a suggestion made at the fourth regular session of the General Conference that the Agency should examine the possibility of joint arrangements among small nations to help deal with the problems of civil liability, insurance and state responsibility for nuclear hazards, by means of mutual financial guarantees.[7] The Diplomatic Conference on Maritime Law also adopted a resolution expressing the wish that the Agency study the general question of co-operation between States to help them to meet the indemnification obligations which would be incumbent upon them under a convention on the liability of operators of nuclear ships.

[7] GC(IV)/OR. 40, paragraph 6.

H. FACILITIES

I. THE AGENCY'S LABORATORY

150. The Laboratory at Seibersdorf will be in regular operation in 1962 at which time it will be possible to expand the services and work now being performed in the limited facilities at Headquarters.

151. Many of the services that will be available from the Laboratory are of particular interest to countries that have recently started the development of nuclear energy. There will, for instance, be a general analytic service for the quality control of materials, which may also include the assaying of nuclear materials in ores.

152. A number of standardization and calibration services will also be available. Reference sources required for the calibration of measuring instruments used in the application of radioisotopes, in the checking of radioactive contamination, and in personnel safety systems in nuclear establishments will be distributed on request. In-service training in standardization techniques will be given.

153. Studies of methods for the relative and absolute measurements of radionuclides and neutron sources have been carried out for some years in the laboratory facilities at Headquarters, and it will be possible to develop this work further in the Laboratory at Seibersdorf. Measurements will also be made of the half-lives and decay schemes of some radionuclides for which precise data do not exist.

154. Intercomparison measurements between laboratories in Member States will be organized and the Agency will take part in similar intercomparisons to be arranged by the International Bureau of Weights and Measures. It is hoped that a permanent and systematic exchange of data and experience will lead to the establishment of international standards in measurement methods and procedures which, in turn, would be used for the preparation of international reference sources.

155. Environmental radioactive analyses of air and of samples of milk and foodstuffs will continue to be made; plant and soil samples will also be similarly analyzed. In-service training in relevant methods and techniques will continue, and a special course on radionuclide surveys in food hygiene control is planned.

II. THE AGENCY'S MOBILE LABORATORIES

156. The two mobile laboratories of the Agency, which have now visited universities and scientific establishments in eight Member States, will continue to be used for training purposes.

CHAPTER II. THE SECRETARIAT

157. The functions and responsibilities of each division of the Secretariat are set out in this chapter.

158. To facilitate comparison, and to conform to the presentation of the budget in Chapter III, the number of authorized staff for the years 1960 and 1961 is tabulated under each division and office and shown against that of staff proposed for 1962. Wherever changes are proposed they are dealt with in explanatory statements at the end of each section.

159. The table in Annex II provides details of the staff proposed for 1962 and a comparison with the total number authorized for 1961.

I. OFFICE OF THE DIRECTOR GENERAL

1. Office of the Director General

Table 1

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
DG	1	1	-	1
D-1/2	1	1	-	1
P-3	1	1	-	1
Sub-total	3	3	-	3
GS	2	2	-	2
Total	5	5	-	5

2. Office of Internal Audit

Table 2

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
P-5	1	1	-	1
P-3	1	1	-	1
P-1	-	-	1	1
Sub-total	2	2	1	3
GS	2	2	-	2
Total	4	4	1	5

(a) Functions and responsibilities

160. The functions of the office are to review financial and other transactions in order to ensure:

- (a) The regularity of the receipt, custody and disposal of all funds and other financial resources of the Agency;
- (b) The conformity of obligations and expenditures with the appropriations and the financial rules and regulations; and
- (c) The economic use of the resources of the Agency.

(b) Explanatory statement on staff

161. The steadily increasing work of the office will necessitate the addition of one post in the Professional category especially since one officer continues to act as Secretary of the Agency's Staff Pension Fund Committee, preparing documentation for the consideration of the Committee and the United Nations Joint Staff Pension Fund.

II. DEPARTMENT OF TRAINING AND TECHNICAL INFORMATION

3. Office of the Deputy Director General for Training and Technical Information

Table 3

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
DDG	1	1	-	1
P-3	1	1	-	1
P-1	1	1	-	1
Sub-total	3	3	-	3
GS	1	1	1	2
Total	4	4	1	5

162. The expansion of the activities of the department has increased the administrative and clerical work in the office of the Deputy Director General. To obviate the continued need for temporary assistance, one additional General Service post is required in 1962.

4. Division of Exchange and Training of Scientists and Experts

Table 4

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	2	2	-	2
P-4	7	7	-	7
P-3	1	1	-	1
P-2	1	1	-	1
Sub-total	12	12	-	12
GS	16	16	2	18
Total	28	28	2	30

(a) Functions and responsibilities

163. The functions and responsibilities of the division are:

- (a) To direct and administer the Agency's fellowship program and all activities associated with it, whether financed from the Agency's own funds or from other sources;
- (b) To direct and administer the Agency's exchange program for scientists, experts and visiting professors;
- (c) To award research and special grants, organize training courses and render assistance to Member States in the organization and operation of regional training courses and regional training centers; and
- (d) To direct and administer the program for the Agency's two mobile radioisotope laboratories.

(b) Explanatory statement on staff

164. The division has at present a General Service staff of 16, namely: one secretary to the Director of the division, one secretary for two Professional officers, one general clerk-typist, three clerk-typists for the exchange unit, and ten clerk-typists for the fellowships unit.

165. It is in this latter unit that the clerical and typing staff urgently needs to be strengthened by the addition of one General Service post, since one person cannot efficiently handle as many as 100 cases, and there is consequently an almost continuous need for overtime work and temporary assistance. Other agencies limit this number to around 70. A second additional General Service post is needed to assist in the exchange unit in connection with courses and training centers.

5. Division of Scientific and Technical Information

Table 5

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	1	1	3	4
P-4	9	9	(3)	6
P-3	7	7	-	7
P-2	3	3	-	3
P-1	4	4	2	6
Sub-total	25	25	2	27
GS	33	39	(2)	37
Total	58	64	-	64

(a) Functions and responsibilities

166. The division's responsibilities are:

- (a) To administer the Agency's program of scientific conferences, symposia and seminars;
- (b) To administer the Agency's program of publishing scientific and technical information on the peaceful uses of nuclear energy;
- (c) To provide to Member States bibliographical and scientific reference services, to organize the preparation and editing of scientific reviews, bibliographies, manuals and references on developments in the subject of nuclear energy;
- (d) To acquire published material on the peaceful applications of nuclear energy and to arrange this material for the use of Member States and the staff of the Agency; and
- (e) To maintain liaison with Member States and to encourage the exchange of scientific information on the peaceful uses of nuclear energy.

(b) Explanatory statement on staff

167. It is proposed to reclassify the posts of the officers in charge of conferences, the editorial and publications services, and the Library. New and increased responsibilities have been added to these posts which are at present at the P-4 level. High professional

skill is needed for the performance of all these duties and it will be recalled that the Report of the Preparatory Commission provided for three P-5 posts in the division. [8]

168. The responsibilities of the officer in charge of scientific conferences include the co-ordination of arrangements for scientific meetings held outside Austria, negotiations with high authorities of the Host Government and the preparation of budget estimates for this part of the Agency's program. He also acts as executive secretary at some Agency meetings.

169. The officer in charge of editorial and publications services acts as executive secretary of the Publications Committee which is responsible for the development of a consistent editorial policy and the general management, co-ordination and supervision of the publications program. He prepares budget estimates and supervises the administration of the approved budget, advises other divisions on the publication of their manuscripts, arranges for internal and external production of publications, analyzes tenders, contracts and invoices and controls printers' work and time schedules, and supervises publicity for and the distribution of Agency publications.

170. The responsibilities of the officer in charge of the Library include the planning, organization and administration of all library activities; the supervision of acquisitions, classification and cataloguing of books and documents; the organization of reference and documentation services; and the provision of technical advice on library and bibliographical matters.

171. These proposed reclassifications are shown in the manning table by an increase of three P-5 posts, and a corresponding decrease of three P-4 posts.

172. It is also proposed to re-grade one of the posts of junior editors in the publications unit from the General Service category to the junior Professional level at P-1. The post of production control officer in the same unit requires not only some organizational training and experience but also the ability to maintain liaison with outside printers and contractors. It is therefore proposed to up-grade this post from the General Service category to the junior Professional level at P-1. These re-gradings will result in a reduction of two General Service posts.

[8] See document GC.1/1, paragraph 136.

III. DEPARTMENT OF TECHNICAL OPERATIONS

6. Office of the Deputy Director General for Technical Operations

Table 6

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
DDG	1	1	-	1
P-3	1	1	-	1
P-1	1	1	-	1
Sub-total	3	3	-	3
GS	1	2	-	2
Total	4	5	-	5

7. Division of Economic and Technical Assistance

Table 7

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	3	3	-	3
P-4	6	6	-	6
P-3	4	4	-	4
P-2	2	2	-	2
Sub-total	16	16	-	16
GS	9	11	1	12
Total	25	27	1	28

(a) Functions and responsibilities

173. The division has two responsibilities, namely:

- (a) Technical assistance; and
- (b) Economic studies and evaluations.

174. In regard to technical assistance, the responsibilities are:

- (a) To arrange for the provision of technical assistance to requesting countries whether such assistance is financed from the Agency's own resources or under EPTA;
- (b) To assist Member States in making arrangements to receive technical assistance from other Member States;
- (c) To assist Member States in preparing suitable projects for assistance from the Special Fund and other financing institutions;
- (d) To assist Member States, where possible, in making arrangements to secure external financing for projects sponsored or aided by the Agency;

- (e) To plan and organize missions, such as preliminary assistance missions, follow-up missions and special survey missions; and
- (f) To co-ordinate the substantive aspect of the work relating to technical assistance with other divisions of the Agency.

175. The responsibilities in connection with economic studies and evaluations are:

- (a) To undertake the economic evaluation of technical assistance projects;
- (b) To undertake studies on the economics of the peaceful applications of nuclear energy, particularly for the production of nuclear power; and
- (c) To conduct or arrange economic surveys relating to the Agency's project and technical operations.

176. The studies and surveys referred to above are, as appropriate, undertaken in co-ordination with the United Nations and the specialized agencies.

(b) Explanatory statement on staff

177. No increase in the Professional staff of the division is contemplated in 1962, but as necessary, use will be made of specialized consultants.

178. It is, however, essential that the clerical staff of the division be increased. The preparation of job descriptions and the recruitment of experts which often necessitate the writing of 20 letters for each case, will be beyond the capacity of the present staff which is already to a certain extent being pooled. The work of the division has also increased because of the need to provide administrative support for experts in the field: their number is growing and is expected to increase from 42 in 1960 to 70 in 1961 and even more in 1962. It is therefore proposed to strengthen the clerical staff of the division by the addition of one General Service post.

8. Division of Reactors

Table 8

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	3	3	2	5
P-4	3	3	-	3
P-3	1	1	-	1
P-2	2	2	(1)	1
Sub-total	10	10	1	11
GS	6	6	-	6
Total	16	16	1	17

(a) Functions and responsibilities

179. The division's responsibilities are:

- (a) To provide advice and assistance to Member States concerning their reactor programs or projects;

- (b) To evaluate the technical feasibility, design, technology, and economics of various reactor systems, as well as the operational experience therewith, and to study their application to meet given needs;
- (c) To collect and distribute information on the design, safety, technology and costs of reactors; and
- (d) To study problems of reactor safety, to evaluate the safety of specific reactor systems and to conduct expert reviews on reactor hazards.

(b) Explanatory statement on staff

180. The activities of the division have expanded rapidly and this trend will, if anything, be more marked in 1962, particularly with regard to power surveys and reactor safety. The division's work, be it in the preparation of hazards evaluation, in the conduct of a power survey or the publication of a reactor directory, calls for lengthy and difficult studies requiring balanced judgment. It is often essential to duplicate some of the calculations in order to eliminate the risk of computational mistakes, the consequences of which may be particularly serious with regard to reactor safety. The Professional staff of the division, which has remained unchanged since 1958, is already overburdened. It is therefore considered essential to propose two additional P-5 posts, because the Agency's need for highly qualified and responsible scientists cannot be satisfied at lower levels. On the other hand, it is proposed to delete one existing P-2 post, since it cannot be effectively utilized.

9. Division of Technical Supplies

Table 9

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	3	3	-	3
P-4	1	1	-	1
P-3	-	-	1	1
P-1	1	1	(1)	-
Sub-total	6	6	-	6
GS	3	4	-	4
Total	9	10	-	10

(a) Functions and responsibilities

181. The division's responsibilities are:

- (a) To deal with the procurement of scientific and technical equipment, materials, facilities and services provided by the Agency to Member States;
- (b) To provide information and advice to Member States in connection with such equipment, materials and facilities;
- (c) To arrange for the receipt from, and supply to, Member States of such materials, equipment and facilities as are made available to the Agency;
- (d) To procure scientific and technical equipment required for the carrying out of research contracts and for use in the Agency's laboratories; and

- (e) To furnish technical advice and information to Member States on prospecting for and the mining and processing of nuclear materials, the procurement and fabrication of fissionable materials and the procurement of special materials.

(b) Explanatory statement on staff

182. No increase in the staff of the division is proposed in 1962. However, work in connection with instrumentation has increased markedly in 1960 and 1961. In addition to scientific studies and evaluations, the staff is responsible for the collection, analysis and classification of information on all available nuclear instruments and equipment and the evaluation of requests for technical equipment. For this reason and to undertake the increased work of procurement necessitating tendering, selection, etc., it is proposed to replace an existing P-1 post by one at the P-3 level so that a person with sound commercial and technical qualifications and experience in purchasing scientific and technical equipment may be recruited.

10. Division of Health, Safety and Waste Disposal

Table 10

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	5	5	1	6
P-4	5	5	1	6
P-3	3	3	-	3
Sub-total	14	14	2	16
GS	8	8	1	9
Total	22	22	3	25

(a) Functions and responsibilities

183. The division's responsibilities are:

- (a) To establish standards of health and safety for the Agency's operations or operations assisted by it, and to co-operate with other international organizations to achieve harmonization and co-ordination of international action in establishing such standards;
- (b) To evaluate the health and safety hazards associated with projects submitted to the Agency and to apply safety standards to the Agency's operations or operations assisted by it;
- (c) To organize and, where appropriate, participate in the operation of health and safety services for Member States and to provide advice and assistance on all matters related to the implementation of standards and regulations; and
- (d) To undertake studies and diffusion of information on health and safety.

(b) Explanatory statement on staff

184. The work of the division has been steadily increasing and it can be foreseen that this trend will be more marked in 1961 and 1962. In spite of the frequent use of consultants and temporary assistance, the staff is still overburdened.

185. It is therefore considered essential to provide for two more Professional posts, one of which will be filled by a scientist particularly versed in the safety of nuclear operations including the disposal of radioactive waste and one by a general radiologist or health physicist. One of them should be at the P-5 and one at the P-4 level as it is not possible to entrust junior scientists with the responsibility of devising regulations or studying and advising on problems having such far-reaching consequences for the safety of man. High scientific qualifications should be coupled with wide and long experience, and the recruitment of persons of this type is only possible if the posts are at the suggested level.

186. In addition, it is proposed to increase the clerical and secretarial staff by one post since the amount of work they are called upon to do is already far beyond their capacity, and it will be even more so after the new Professional officers are recruited. This additional post in the General Service category will provide some measure of relief although it may still be necessary to employ temporary assistance during peak periods.

IV. DEPARTMENT OF RESEARCH AND ISOTOPES

11. Office of the Deputy Director General for
Research and Isotopes

Table 11

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
DDG	1	1	-	1
P-3	1	1	-	1
P-1	1	1	-	1
Sub-total	3	3	-	3
GS	1	1	1	2
Total	4	4	1	5

187. The expansion in the activities of the department has increased the administrative and clerical work in the Office of the Deputy Director General to an extent which demands the almost continuous employment of temporary assistance. An additional secretarial post in the General Service category is accordingly considered essential in 1962.

188. There is no sharp dividing line between the functions and responsibilities of the two divisions constituting this department. For convenience, however, all activities concerning chemistry, physics, effects of radioactivity in the sea, and research contracts are grouped under the Division of Research and Laboratories, and those which relate to medicine, agriculture, radiation protection research, radiobiology, and waste disposal research are grouped under the Division of Isotopes.

12. Division of Research and Laboratories

Table 12

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	6	6	1	7
P-4	1	1	1	2
P-3	4	4	-	4
Sub-total	12	12	2	14
GS	8	8	1	9
Total	20	20	3	23

(a) Functions and responsibilities

189. The division's responsibilities are:

- (a) To assist and advise Member States in assessing their needs for research and development and in some cases in programming their research in the chemistry, biochemistry, physics and industrial uses of nuclear energy with particular reference to the applications of radioisotopes and radiation;

- (b) To promote the co-ordination and further development of existing research and initiate new research which may be of assistance to Member States, to promote international research projects in the subjects mentioned in sub-paragraph 189(a) above, and to carry out studies with special emphasis on the needs of newly-developing countries;
- (c) To assist in the exchange of information especially by means of scientific meetings and the preparation of scientific surveys;
- (d) To prepare the program of work of the Agency's laboratories in close collaboration with other divisions and to organize and operate the Agency's laboratories; and
- (e) To co-ordinate and deal with research contracts in support of the Agency's statutory functions.

(b) Explanatory statement on staff

190. It will not be possible, with the existing staff of the division, to carry out the proposed work on the compilation of nuclear data. It is therefore not intended - at least in the beginning - to perform the critical evaluation as such in the Secretariat, but only to arrange for a closer collaboration and division of responsibilities among existing national and inter-governmental groups. This means that the Agency will probably act only as an intermediary. Nevertheless, a senior scientist at the P-5 level will be required for this task.

191. The work in connection with the application of radioisotope techniques to hydrological problems is increasing, and in 1962 it will be necessary to recruit one scientist (P-4) to assist the division in this work. The scientist will have to be experienced in the use of radioactive tracers in hydrology and will be needed for the detailed planning of experiments and for advising and assisting in the training of personnel in Member States wishing to carry out this type of work.

192. There are at present approximately 90 research contracts in the course of execution and it is expected that by 1962 this number will have increased to about 120. The administrative work related thereto has so far been done by one Professional and one General Service staff member. The provision of an additional post in the General Service category is however necessary to provide the clerical assistance required to deal with the increased work.

13. Division of Isotopes

Table 13

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1	1	1	-	1
P-5	8	8	-	8
P-4	4	4	2	6
Sub-total	13	13	2	15
GS	9	10	-	10
Total	22	23	2	25

(a) Functions and responsibilities

193. The division's responsibilities are:

- (a) To assist and advise Member States in developing the applications of radioisotopes in medicine, agriculture and biology, and research on radiation protection, biological effects of radiation, dosimetry and the disposal of radioactive waste;
- (b) To carry out studies, to plan and direct research programs and to place research contracts in co-operation with other divisions, particularly the Division of Research and Laboratories and the Division of Health, Safety and Waste Disposal; and
- (c) To assist, at the request of the Division of Scientific and Technical Information, in the exchange of information, especially by providing scientific secretaries for Agency conferences and symposia and scientific editors for the preparation of proceedings of such meetings.

(b) Explanatory statement on staff

194. Work in connection with the use of large radioisotope sources for teletherapy was started in 1959 and at that time one Professional officer was required for the purpose. By 1960, the scope of work had increased so rapidly that it became necessary to engage consultants and temporary staff for long periods. The co-operation of a number of hospital physicists throughout the world who volunteered to prepare, without remuneration, a series of data sheets and curves has made it possible so far to cope with the task. In 1962, however, it will be necessary to recruit one additional Professional officer at the P-4 level; this will be more economical than the continuous use of temporary assistance.

195. During discussions at the fourth regular session of the General Conference the desire was expressed that the Agency should place greater emphasis on the agricultural applications of radioisotopes. A considerable expansion in this field of work is accordingly planned during 1962 in the way of technical assistance, training; research contracts, and the provision of information; it is anticipated that the number of projects designed to serve this purpose will be twice that approved for 1961. In order that the division may be able satisfactorily to do its share in the implementation of these projects an additional post at the P-4 level is required so that a scientist with the necessary experience in the applications of radioisotopes in agriculture may be employed.

V. DEPARTMENT OF SAFEGUARDS AND INSPECTION

14. Office of the Inspector General

Table 14

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
IG	1	1	-	1
P-1	1	1	-	1
Sub-total	2	2	-	2
GS	-	-	-	-
Total	2	2	-	2

196. On the basis of information received in 1960, of announcements made during the fourth session of the General Conference, and as a result of the work of preliminary assistance missions, it is expected that during 1962 safeguards may be applied to a number of Agency projects. The Agency may also be asked to administer the safeguards of certain bilateral agreements and a few principal nuclear facilities may be placed voluntarily under Agency safeguards.

15. Division of Safeguards

Table 15

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	4	4	(1)	3
P-4	2	2	-	2
P-3	1	1	-	1
Sub-total	8	8	(1)	7
GS	4	4	-	4
Total	12	12	(1)	11

(a) Functions and responsibilities

197. The division's responsibilities are:

- (a) To develop regulations and procedures for the accounting, measurement, inventory control and storage of source and special fissionable materials and equipment in order to prevent materials and facilities placed under the control of the Agency at any time being used to assist or further a military purpose;
- (b) To prepare safeguards provisions for incorporation in relevant project agreements between the Agency and Member States;
- (c) To conduct and sponsor research in conjunction with the Division of Research and Laboratories to improve safeguards procedures, techniques and instrumentation; and

(d) To assist Member States in setting up and improving their own safeguards procedures.

(b) Explanatory statement on staff

198. It is proposed to delete one P-5 post which has remained unfilled in this division.

16. Division of Inspection

Table 16

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	1	1	-	1
P-4	2	2	-	2
Sub-total	4	4	-	4
GS	2	2	-	2
Total	6	6	-	6

(a) Functions and responsibilities

199. The division's responsibilities are:

- (a) To apply the appropriate safeguards to Agency projects;
- (b) To apply, at the request of two or more States and in accordance with the Agency's Safeguards, the safeguards provisions of bilateral agreements; and
- (c) In connection with sub-paragraphs (a) and (b) above, to report on any condition constituting a health and safety hazard or which might indicate that satisfactory control was not being exercised. This activity will be carried out in close collaboration with the Division of Health, Safety and Waste Disposal.

VI. DEPARTMENT OF ADMINISTRATION, LIAISON AND SECRETARIAT

17. Office of the Deputy Director General for Administration,
Liaison and Secretariat

Table 17

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
DDG	1	1	-	1
P-5	1	1	-	1
P-2	1	1	-	1
Sub-total	3	3	-	3
GS	2	2	-	2
Total	5	5	-	5

18. Secretariat of the General Conference and
the Board of Governors

Table 18

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	-	-	1	1
P-4	5	9	(3)	6
P-3	-	-	2	2
P-2	1	1	-	1
Sub-total	7	11	-	11
GS	4	4	1	5
Total	11	15	1	16

(a) Functions and responsibilities

200. The division's responsibilities will continue to be:

- (a) To serve all meetings of the General Conference and the Board of Governors and their Committees, and to co-ordinate the provision by other branches of the Secretariat of the additional services needed for such meetings;
- (b) To ensure that all decisions taken by the General Conference and the Board of Governors are brought to the attention of the offices responsible for their implementation and to co-ordinate the timely preparation and issue of all documents required for these two organs;
- (c) To collaborate with the Division of Scientific and Technical Information in the preparation and co-ordination of the schedule of meetings of all types which the Agency is to sponsor and co-sponsor; and
- (d) To provide the Agency with interpretation services.

(b) Explanatory statement on staff

201. Since 1957 the senior member of the interpretation service has carried out the combined duties of a chief of service and interpreter. Besides the actual work of interpretation, this has required a considerable volume of administrative work, entailing correspondence to obtain staff, both permanent and temporary; liaison with offices responsible for organizing meetings to determine their interpretation needs; preparation of work schedules and allocation of duties; assembly of documents required by the interpreters; maintenance of records; and the general administration of the interpretation team which, during sessions of the General Conference, rises to a strength of 20.

202. In the light of those responsibilities, the post of chief interpreter was considered to warrant the grade of P-5 and the incumbent has thus far been carried against a vacant post at this level elsewhere in the Secretariat. As a sequel to the decision to provide a full team of eight permanent interpreters [9], it is proposed to re-grade the post of chief interpreter to P-5.

203. On the other hand, experience indicates that it is not at present necessary for the remaining seven interpreters posts all to be at the P-4 level; it is accordingly proposed that two of them should be re-graded to P-3.

204. The chief interpreter is finding his administrative duties increasingly onerous and difficult to execute expeditiously, the situation being aggravated by the need for him to be absent from Headquarters so frequently. In 1960 he was away from Vienna for a total of 98 days. A secretary is therefore needed to provide administrative support for the interpreters, as well as to strengthen the secretarial staff of the division as a whole at peak periods when it cannot handle all the documentary work involved without help from outside.

19. Division of External Liaison and Protocol and Office of the Representative of the Director General at United Nations Headquarters

Table 19

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	2	2	-	2
P-5	3	3	-	3
P-4	1	1	-	1
P-3	2	2	-	2
P-2	1	1	1	2
Sub-total	9	9	1	10
GS	11	11	1	12
Total	20	20	2	22

(a) Functions and responsibilities

205. The division's responsibilities at Headquarters are:

- (a) To maintain liaison with Member States, the United Nations, the specialized agencies and other inter-governmental and non-governmental organizations of an international character;

[9] GC(IV)/116, Table 18 and paragraphs 234-236.

- (b) To maintain liaison with the Host Government and to advise and assist in dealing with questions arising out of the agreements concluded with it;
- (c) To advise and assist in dealing with matters of external policy and with negotiations, communications and consultations with Member States or other bodies;
- (d) To arrange and co-ordinate the representation of the Agency at meetings of the United Nations and other international organizations and to arrange notification of representation at other meetings;
- (e) To deal with all questions of protocol and, in particular, to provide necessary protocol services during sessions of the General Conference; and
- (f) To compile periodic reports to the General Conference, the Board and the relevant organs of the United Nations, and to prepare other documents on matters of external relations.

(b) Explanatory statement on staff

206. As in 1961, it will be necessary to rely on assistance from the Division of Language Services for the editing of various reports. It has already proved necessary to obtain additional help to deal with the work of maintaining relations with inter-governmental and non-governmental organizations, and, as indicated above, this work is expected to increase in 1962. One additional Professional post at the P-2 level and an additional General Service clerk will consequently be required.

(a) Functions and responsibilities

207. The functions and responsibilities of the Office of the Representative of the Director General at United Nations Headquarters are:

- (a) To assist and advise the Director General on policy matters pertaining to relations with the United Nations;
- (b) To assist the Director General in implementing the relationship agreement with the United Nations by maintaining close working relations with the United Nations Secretariat in all matters of mutual interest;
- (c) To represent the Director General, as required, at United Nations meetings and other meetings, and to assist other Agency representatives attending such meetings;
- (d) To report on any United Nations activities in which the Agency might have an interest, and to take steps, if necessary, to ensure the Agency's association with such activities;
- (e) To assist in compiling and presenting reports to be submitted by the Agency to United Nations organs; and
- (f) To maintain close working relations with the liaison offices of the specialized agencies at United Nations headquarters.

20. Legal Division

Table 20

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	2	2	-	2
P-4	1	1	-	1
P-3	1	1	1	2
P-1	-	-	1	1
Sub-total	5	5	2	7
GS	5	5	1	6
Total	10	10	3	13

(a) Functions and responsibilities

208. The division's responsibilities are:

- (a) To prepare legal instruments required by the Agency and to deal with problems of the interpretation and application of such instruments;
- (b) To advise other departments and divisions on legal matters and to perform any other legal work which the Agency may require;
- (c) To deal with legal questions concerning the Agency's relations with other international organizations and with Member States;
- (d) To follow international legal conferences and other legal developments on the subject of nuclear energy;
- (e) To undertake comparative studies of national legislation concerning nuclear energy and, at the request of Member States, to advise on the preparation of such legislation; and
- (f) To register international agreements pursuant to Article XXII. B of the Statute and to the regulations adopted by the Board for this purpose. [10]

(b) Explanatory statement on staff

209. The present authorized strength of the division includes five Professional officers, and this number has proved inadequate to handle the steadily increasing work. The situation has been relieved in part by the employment of one consultant to deal with questions of third party liability for nuclear damage, health and safety and waste disposal. In addition, by the temporary loan of posts from other divisions, one Professional officer has been recruited to draft and to assist in negotiating project and supply agreements and to handle legal questions connected with safeguards. It has also been found necessary to retain the professional services of another officer acquainted with Austrian law to deal with relations with the Host Government and other questions of local law, as well as the general question of the Agency's status, privileges and immunities in Member States.

210. Although it is expected that in due course there will no longer be a need for the consultant mentioned in paragraph 209 above, there will continue to be a permanent need for the services of the other officers referred to. It is considered necessary, therefore, to supplement the authorized strength of the division by the creation of one additional P-3 post, one additional P-1 post and one General Service post.

[10] INFCIRC/12.

21. Division of Public Information

Table 21

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
P-5	1	1	-	1
P-4	3	3	-	3
P-3	2	2	-	2
Sub-total	6	6	-	6
GS	7	7	-	7
Total	13	13	-	13

(a) Functions and responsibilities

211. The functions and responsibilities of the division are:

- (a) To provide information to the general public as well as to interested specialized groups on the plans and programs of the Agency and the progress made in implementing them; and
- (b) Similarly, to provide information on the peaceful uses of nuclear energy, in relation to the Agency's activities.

22. Division of Budget and Finance

Table 22

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	2	2	-	2
P-4	3	3	1	4
P-3	4	4	(1)	3
P-2	2	2	-	2
P-1	1	1	2	3
Sub-total	13	13	2	15
GS	20	20	-	20
Total	33	33	2	35

(a) Functions and responsibilities

212. The division's responsibilities are:

- (a) To provide financial services for the Agency and to control receipts and expenditures under the Regular Budget and the Operational Budget and in connection with the Agency's participation in EPTA;
- (b) To prepare the annual budget and financial plans of the Agency, make budgetary estimates of the Agency's operations and provide other budgetary services to the Agency; and
- (c) To provide management and planning services to the Agency.

(b) Explanatory statement on staff

213. No additions have been made to the Professional strength of the division between the budgets for 1958 and 1961 - other than for the provision of management and cost accounting services which were additional to the functions envisaged for the division in the Agency's first budget. The maintenance of the number of Professional posts for accounting and budget work at the original level has been achieved only by using some of the senior General Service staff on work which, by the standards of other international organizations, would require junior Professional staff. [11]

214. The grading of this staff is thus inadequate for the normal duties they have to perform, and because there is only one Professional officer in each of the sections dealing with accounts, payments authorization and cash, senior General Service staff have, from time to time, to perform the duties of a P-3 or P-4. Difficulties have also arisen on occasions when General Service staff have had to deputize for Professional officers during periods of leave, sickness, etc., and when members of the division have had to be deputed for conferences held away from Vienna.

215. The following General Service posts in the division should accordingly be re-graded to at least P-1, especially since some of the incumbents will, by the beginning of 1962, have been performing junior Professional duties for at least four years:

- (a) Cashier (assistant treasurer);
- (b) Budget analyst;
- (c) Supervisor, payroll;
- (d) Supervisor, claims;
- (e) Supervisor, technical assistance; and
- (f) Contributions officer.

216. It is proposed, however, that the establishment of the appropriate number of P-1 posts and the relinquishing of the corresponding number of General Service posts should be effected over a period of three years, so that in 1962 only two such posts will be re-graded.

217. The amount of temporary assistance needed by the finance branch of the division has already reached a point where the addition of one new General Service post will clearly be required by 1962.

218. In addition, the responsibilities and the work of the Chief Accountant have increased in connection with the Agency's Laboratory and other new projects which call for a wider variety of accounting experience. In view of these considerations, it is proposed to re-grade that post from P-3 to P-4.

219. An additional General Service post will be required in connection with the maintenance on a continuing basis of the Agency's administrative manual and for the clerical and typing services connected therewith.

[11] See also documents GC(III)/75 and GC(IV)/116, paragraphs 323 and 275 respectively.

23. Division of Personnel

Table 23

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	1	1	-	1
P-4	2	2	-	2
P-3	1	1	-	1
P-1	1	1	-	1
Sub-total	6	6	-	6
GS	13	14	-	14
Total	19	20	-	20

(a) Functions and responsibilities

220. The division's responsibilities are:

- (a) To carry out the personnel policies of the Agency and to assist in the development and review of such policies;
- (b) To recruit the staff of the Agency, in consultation with the heads of departments, and to register and review all applications; and
- (c) To administer the Provisional Staff Regulations and the Staff Rules.

24. Administrative Office of Technical Assistance

Table 24

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
P-5	1	1	-	1
P-4	1	1	-	1
P-3	1	1	-	1
Sub-total	3	3	-	3
GS	3	3	-	3
Total	6	6	-	6

(a) Functions and responsibilities

221. The office provides administrative support for the technical assistance activities of the Agency. To this end it:

- (a) Co-ordinates the administrative, financial, legal and personnel matters connected with the Agency's technical assistance activities, in consultation with the appropriate offices and divisions of the Secretariat;

- (b) Ensures uniformity of administrative practices regarding technical assistance and fellowships, as far as appropriate, with those of the United Nations and the specialized agencies in accordance with the relevant relationship agreements and accepted patterns of international practice;
- (c) Prepares for and presents to TAB and its working parties, information and data for programming under EPTA, and in this connection and with respect to administrative and financial matters relating to the implementation of the program, corresponds with the resident representatives of TAB, for whom it is the first point of contact in the Agency;
- (d) Reports periodically to TAB, in co-operation with the Division of Budget and Finance, on the financial position of the Agency's technical assistance activities and fellowship program under EPTA and assembles material for TAB's annual report to TAC;
- (e) Co-ordinates the negotiation and execution of technical assistance agreements with the participating Governments and makes contractual arrangements with technical experts after they have been selected by the substantive divisions concerned; and
- (f) Provides the substantive divisions responsible for implementing the Agency's technical assistance and fellowship and training programs with full and complete information on the rules and procedures of EPTA.

25. Division of Conference and General Services

Table 25

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
D-1/2	1	1	-	1
P-5	-	-	1	1
P-4	1	2	-	2
P-3	5	4	(1)	3
P-2	4	4	-	4
P-1	2	2	-	2
Sub-total	13	13	-	13
GS	69	70	-	70
M & O	106	106	-	106
Total	188	189	-	189

(a) Functions and responsibilities

222. The division's responsibilities are:

- (a) To provide centralized administrative support for all conferences and meetings of the Agency including meetings of the General Conference and the Board;
- (b) To provide a building maintenance service for the Agency's Headquarters and technical advisory services for construction and renovation of buildings;
- (c) To provide a telegraph and cable service, a diplomatic mail pouch service and all telecommunication services;
- (d) To provide reproduction facilities for reports and publications of the Agency either by contractual printing or by use of the Agency's own reproduction equipment;

- (e) To provide a distribution and sales service for all documentation and publications, whether produced internally or externally;
- (f) To provide the services for the procurement of non-scientific equipment and expendable supplies required by the Agency, to assist in procuring scientific equipment, and to maintain control records of equipment and supplies;
- (g) To provide a central registry service to process incoming, outgoing and internal correspondence; and
- (h) To provide other general administrative services as required.

(b) Explanatory statement on staff

223. It is proposed to re-classify the post of head of maintenance and engineering services from P-4 to P-5. This is justified because of the wide responsibility and experience which this post demands and also because this officer has frequently to act as deputy to the Director of this large division. It is also proposed to re-classify the post of head of the documents services from P-3 to P-4 which would correspond to the grading of similar posts in other organizations.

224. With regard to Maintenance and Operatives Service personnel, the servicing of the expanded headquarters building may in the future require changes both in the strength and the composition of the staff concerned. However, the Board proposes no increase in numbers, but since some of the staff - cleaners, for example - are not required to work a full day at all times, adjustments in the labor force will be made as dictated by needs, provided that the total man-hours worked does not exceed the number of hours which would be worked if the full authorized staff of 106 persons were employed on a full-time basis.

26. Division of Language Services

Table 26

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
P-5	1	1	-	1
P-4	12	12	-	12
P-3	24	29	-	29
P-1	1	1	-	1
Sub-total	38	43	-	43
GS	34	39	-	39
Total	72	82	-	82

(a) Functions and responsibilities

225. The division's responsibility is to provide language services for the General Conference, the Board, their committees, and the Secretariat of the Agency.

CHAPTER III. THE BUDGET

A. GENERAL

226. As in previous years, those activities under the Regular Program which can readily be identified as being of a functional nature are again grouped together, namely, panels and committees, special missions, seminars, symposia and conferences, distribution of information, and scientific and technical services, including some of the laboratory services. However, the budget continues to reflect the fact that the Secretariat works as an integrated team. The entire cost of each functional activity cannot therefore be shown under the respective headings, because major items such as salaries and wages, common staff costs, and common services and supplies cannot be segregated as between functional and administrative activities, although in large measure they are directly related to or in support of the Functional and Operational Programs.

227. On the other hand it has been possible, as in the budget for 1961, to estimate the proportion of salaries and wages, common staff costs and common services and supplies which should be charged to sessions of the General Conference and meetings of the Board; the appropriate costs are accordingly provided for in the relevant budget sections.

228. The increase in expenditures for functional program activities reflects the continued importance of this part of the Agency's operations. However, the Board is of the opinion that after 1962 there will be a leveling-off, and in one or two instances even a decline in these activities.

229. Wherever experience has made it possible and the estimates are clarified by doing so, they have been broken down into the requirements for each of the activities or items of expenditure covered by the budget section concerned. The assumptions upon which the estimates are based have also been stated. However, it is recognized that these estimates cover the planned operations for a year that ends 21 months after the initial elaboration of the budget; therefore, as in previous years the implementation of the program for 1962 is also subject to all the variables and limitations necessarily inherent in a program and budget developed so far in advance.

B. FINANCING OF REGULAR BUDGET EXPENSES

230. As provided in the Statute and the Financial Regulations, the expenses of the Regular Program are financed by contributions for which Member States are assessed annually. Following the practice recommended by the General Conference at its second regular session [12], the Director General will propose to the General Conference a scale of assessments for 1962 based on the United Nations scale for 1961. While the proposed Regular Budget for 1962 is 1.5% (\$93 000) higher than that for 1961, assessment against Member States will be \$7 000 less than in 1961, because, as is shown in Tables 27 and 44, and in part I, A of the draft resolution set forth in Annex III, the expected revenue from investments and miscellaneous income, estimated at \$100 000, will be applied to reduce Members' assessments.

231. The Director General will report to the General Conference on the collection during 1960-1961 of Members' contributions and of advances to the Working Capital Fund. At the end of 1960 there remained unpaid 0.33% of assessed contributions due for 1957-1958, 5.45% for 1959 and 9.67% for 1960, as well as 0.57% of the advances due to the Working Capital Fund.

232. In accordance with the Financial Regulations, any surplus cash which by the end of a financial year has accrued in the Administrative Fund, is retained in the Fund for 12 months as a provisional cash surplus. At the end of this 12-month period there are added to the

[12] GC(II)/RES/33.

provisional cash surplus any arrears of contributions received during the period and any savings on obligations brought forward for liquidation in that period. The resulting balance constitutes the final cash surplus which, after audit by the External Auditor, is allocated among Member States in accordance with their percentages in the scale of assessments for the year in which the surplus arose.

233. The share allocated to each Member State whose contribution for that year has been paid in full is applied to liquidate first, any debt due from the Member State towards the Working Capital Fund; secondly, any arrears of assessed contributions; and thirdly, any assessed contribution due for the financial year then commencing. The allocations to the remaining Member States are similarly applied after they have paid the full amount of their contributions for the year in which the surplus arose.

234. The final cash surplus for 1959, which will be allocated to Member States in 1962, has been arrived at as follows:

Budget surplus	\$769 748
<u>Less: 1959 contributions unpaid</u> as at 31 December 1959	<u>592 232</u>
Provisional cash surplus as at 31 December 1959	\$177 516
Arrears of contributions received during 1960	409 037
Savings on obligations brought forward from 1959	<u>59 738</u>
Final cash surplus	<u><u>\$ 646 291</u></u>

C. FINANCING OF OPERATIONAL BUDGET EXPENSES

235. At present, the principal source of funds for the Agency's operational expenses is voluntary contributions by Member States to the General Fund.

236. This dependence on voluntary contributions continues to create uncertainty in determining to what extent the approved annual program can be carried out. The program reflects an attempt to balance different, but interrelated operational activities and the estimated cost of financing each activity is shown in the budget. Any shortfall in the funds required for such a program must affect the balance between the various parts of the program as well as make it impossible to execute the program as a whole. If no satisfactory way can be found to ensure greater and more stable response to the call for voluntary contributions, the Agency may have to devise some means of negotiating with requesting Governments a system of priorities to be accorded to different projects within a country program.

237. The uncertainty created by the need to rely on voluntary contributions extends also to the Regular Budget, from which are financed the supporting services for planning and administering the operational program. If the funds pledged for the operational part of the program fall short of what is needed, the most economical utilization of the staff and facilities provided for in the Regular Budget cannot be achieved.

238. In 1959 and 1960 pledges of voluntary contributions represented 78.9% and 66.4%, respectively, of the target figure of \$1.5 million decided on by the General Conference for each of these years. For 1961 this figure was increased to \$1.8 million of which, by 31 May 1961, \$1 181 372 or 65.6% had been pledged. While there has thus been some improvement, as between 1960 and 1961, in the actual amount pledged, it must be pointed out that in terms of a percentage of the total Operational Budget, the pledges for 1961 show no improvement over 1960.

239. On 15 December 1960 the General Assembly of the United Nations adopted a resolution urging the Agency to develop its program of technical assistance so as to help the

less-developed countries in the utilization of nuclear energy for peaceful purposes, and urging the economically developed States to increase substantially their voluntary contributions to the General Fund. [13]

240. The Board welcomes the interest shown by the United Nations in this, the most serious financial problem facing the Agency, and hopes that the initiative taken by the General Assembly will result in a greater response to the needs of the Operational Program in 1962.

241. In 1962 the Agency's Laboratory at Seibersdorf will be in operation. Under Article XIV.B of the Statute, a certain part of the Laboratory's work is regarded as chargeable to the Regular Budget. The precise proportion of the total cost of operating the Laboratory, which should be so charged, is a question which can only be determined by cost accounting. From the experience gained in operating the laboratory facilities at Headquarters, it is estimated that 40% of the Laboratory's total operating cost will be chargeable to the Regular Budget and appropriate provision has accordingly been made.

242. It is possible that during 1962 the Laboratory will undertake work at the request of other bodies or of Member States, from which it will derive some income. The establishment of a scale of charges will, however, have to take into account actual operating experience which will not be obtained until 1962; nor is it possible at this time to estimate the volume of the work. However, to emphasize the principle that certain services performed by the Laboratory should be paid for, a token figure of \$5 000 has been shown in Tables 27 and 46 as estimated receipts in 1962 for reimbursable services.

D. PARTICIPATION IN THE UNITED NATIONS EXPANDED PROGRAMME
OF TECHNICAL ASSISTANCE

243. In 1960 the Agency's technical assistance activities financed under EPTA have been further integrated with those of the United Nations and the specialized agencies by the full participation of the Agency in the country-programming procedures. In that year the total amount spent by the Agency for its technical assistance activities financed from EPTA funds was:

Fellowships	\$305 899
Experts and equipment	286 472
Total	<u>\$592 371</u>

244. In 1961-62 the Agency participated in the new system of two-year programming. The total cost of the Agency's Category I EPTA Programme for the two years in question, as approved by TAC and including regional projects and the Supplementary Programme for Africa, amounts to \$1 483 500, of which \$815 180 is for 1961 and \$668 320 for 1962; this apportioning of funds does not exclude the possibility, in accordance with the procedure now in force, of a carry-over of funds from 1961 to 1962.

[13] General Assembly resolution 1531 (XV).

E. THE CONSOLIDATED BUDGET

Table 27

Item	1960 Actual	1961 Budget	1962 Estimate
EXPENDITURES			
	\$	\$	\$
Regular Budget	5 158 145	6 168 000	6 261 000
Operating Fund I			
Laboratory facilities	45 000	349 000	262 000
Unobligated earmarkings	30 000	-	-
Operating Fund II			
Fellowships and training program	632 316	800 000	827 000
Technical assistance program	383 439	510 000	758 000
Research contracts program	67 184	90 000	168 000
Mobile radioisotope laboratories	28 948	51 000	40 000
Unobligated earmarkings	39 608	-	-
TOTAL	6 384 640	7 968 000	8 316 000
RECEIPTS			
Regular Budget			
Assessed contributions of Member States	5 441 500 ^{a/}	6 168 000	6 161 000
Application of Agency safeguards	-	pro memoria	pro memoria
Handling and storage of special fissionable material	-	pro memoria	pro memoria
Transfer from the Publications Revolving Fund	-	pro memoria	pro memoria
Income from investments and miscellaneous income	115 034	39 000	100 000
General Fund			
Voluntary contributions	996 103	1 800 000	2 000 000
Special voluntary contributions	-	pro memoria	pro memoria
Income from investments	-	pro memoria	pro memoria
Utilization of reserve	100 000	pro memoria	pro memoria
Operating Fund I			
Income from reimbursable services	-	pro memoria	5 000
Income from investments	-	pro memoria	pro memoria
Operating Fund II			
Savings on prior years' operations	76 484	-	-
Income from reimbursable services	-	pro memoria	pro memoria
Income from investments	53 935	16 000	50 000
TOTAL	6 783 056	8 023 000	8 316 000

a/ As at 31 May 1961.

F. REGULAR BUDGET ESTIMATES

Expenditures

Summary

Table 28

Budget parts and sections	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
I. General Conference and Board of Governors			
1. General Conference	240 151	254 000	245 000
2. Board of Governors	386 777	570 000	398 000
II. Functional program activities			
3. Panels and committees	121 991	154 000	160 000
4. Special missions	58 159	126 000	70 000
5. Seminars, symposia and conferences	126 478	170 000	180 000
6. Distribution of information	177 660	255 000	260 000
7. Scientific and technical services and laboratory charges	501 812	703 000	885 500
III. The Secretariat			
8. Salaries and wages	2 148 975	2 371 000	2 467 000
9. Common staff costs	883 941	949 000	1 030 000
10. Duty travel of staff	137 259	136 500	180 000
11. Representation and hospitality	29 679	32 500	32 500
IV. Common services, supplies and equipment			
12. Common services	196 629	240 000	224 000
13. Non-technical supplies and equipment	148 634	207 000	129 000
Total	5 158 145	6 168 000	6 261 000
<u>Less:</u> Income from investments and miscellaneous income	<u>a/</u>	<u>a/</u>	100 000
Total net expenditure budget			6 161 000

a/ Not credited against budget estimates for 1960 and 1961.

245. To a large extent the increase proposed under Part III - The Secretariat, is offset by decreases in Part I - The General Conference and the Board of Governors, and Part IV - Common services, supplies and equipment.

246. On the other hand, the estimates under Part II - Functional program activities, which provide the principle services (other than staff services) rendered to Member States under the Regular Budget, show an increase of \$147 500.

247. The main increase under Part III - The Secretariat, is attributable to salaries and wages and common staff costs. The increase in these two budget sections is due to two factors: first, the appropriations for salaries and wages and common staff costs in 1962 must be sufficient to cover a full year's salaries and allowances of staff recruited during

1961; secondly, provision has been made for the employment of an additional 14 Professional and eight General Service staff members in 1962. As explained more fully in the Introduction these additional staff members are urgently required if the Agency is to carry out in 1962 the program of work set forth in Chapter I.

248. In 1961 there were no Professional staff increases related to the work program. The additional nine Professional posts authorized for employment in that year were justified on purely economic grounds since their salaries and allowances have been more than offset by reductions in the appropriations for temporary assistance. Considered over a two-year span the proposed increase of 14 Professional posts amounts to an annual increase of less than 3%.

249. The revised presentation of the budget has been described in the Introduction [14]. It is important to note, however, that in Table 28 the actual expenditures for 1960 and those budgeted for 1961 as well as figures in the tables which follow have been adjusted to conform with the presentation for 1962. This has been done to facilitate comparison between the three years.

[14] See paragraphs 5-9 above.

I. THE GENERAL CONFERENCE AND THE BOARD OF GOVERNORS

1. The General Conference

Table 29

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Salaries and wages	67 006	75 000	76 000
Common staff costs	27 942	32 000	30 000
Temporary assistance	65 301	70 000	65 000
Rental of space and equipment	41 877	35 000	35 000
Common services	19 374	20 000	20 000
Printing and office supplies	12 638	19 000	15 500
External audit	6 013	3 000	3 500
Total	240 151	254 000	245 000

(a) General

250. The estimates cover all expenses in connection with the sixth regular session of the General Conference in 1962, which can be identified and estimated without recourse to exhaustive and expensive cost accounting procedures. In accordance with the practice of other international organizations, the estimated cost of the annual audit of the Agency's accounts is also included in this section.

(b) Assumptions

251. It is assumed:

- (a) That the General Conference will meet for two weeks in 1962 and will hold a maximum of four plenary or committee meetings each day;
- (b) That on the basis of experience during the third and fourth regular sessions, 27.5% of the salaries and common staff costs of the administrative staff of the Secretariat of the General Conference and the Board of Governors are chargeable to the General Conference;
- (c) That, based on a similar pattern of work as in 1960 and a forecast of other interpretation requirements of the Secretariat, 5% of the salaries and common staff costs of the Agency's permanent interpreting staff are chargeable to the General Conference;
- (d) That approximately 15% of the salaries and common staff costs of the staff of the Division of Language Services are allocable to the budget of the General Conference for the provision of translation and editing services in the four working languages; and
- (e) That in 1962 approximately 4 500 000 pages of documentation will be required for the General Conference and salaries and other costs proportionate to this amount of reproduction work are chargeable to the General Conference.

(c) Explanation of estimates

252. Salaries and wages	\$76 000
1961	75 000
1960	67 006

253. The estimate for 1962, based on the above assumptions, remains virtually unchanged from that for 1961 which took into account an increase in that year in the permanent staff for interpretation and language services.

254. Common staff costs	\$30 000
1961	32 000
1960	27 942

255. Common staff costs which include emoluments other than salaries and wages are related to the total cost of salaries. Experience has shown that in respect of permanent qualified linguistic staff, the proportion of common staff costs to salaries has tended to decrease slightly. The estimate for 1962 is therefore slightly lower than that for 1961.

256. Temporary assistance	\$65 000
1961	70 000
1960	65 301

257. The estimate for 1962 is based on experience during the fourth regular session of the General Conference in 1960. It may be expected that some savings will accrue both in 1961 and 1962 from the increase in permanent linguistic staff. On the other hand a slight offsetting factor has been taken into account for 1962 because whereas the sixth session will be held in the Neue Hofburg all the Agency's language services will by that time be moved from that building, a development which may influence the degree to which permanent staff and temporary staff can be used as an integrated team during that session. Nevertheless, the estimate for 1962 is \$5 000 below that for 1961.

258. Rental of space and equipment	\$35 000
1961	35 000
1960	41 877

259. The estimate covers rental of space and services in the Neue Hofburg and is based on a global figure of \$2 500 per day for 13 days as provided for under an agreement with the Austrian Government. It will be noted that the corresponding charges for the fourth regular session in 1960 exceeded this amount; the increase is due to certain charges which were levied and paid before a firm agreement was negotiated.

260. An amount of \$2 500 is provided in the estimate for 1962 to cover the cost of hiring additional duplicating machines and other equipment during the session.

261. Common services	\$20 000
1961	20 000
1960	19 374

262. The level of expenditure on general services for a normal session of the General Conference can now be established at approximately \$20 000. In 1959 it was \$20 050.

263. The provision for 1962 covers communication services - including facilities for the press and other information media, telephone calls and cables and postal charges for the distribution of approximately 4 500 000 pages of mimeographed and printed documents - estimated at \$10 700.

264. For the maintenance of all equipment and installations, including the provision of electricians' services on a 24-hour duty basis, \$1 500 are provided. Provision is also made for certain requirements outside the immediate conference area, such as the transport, erecting and dismantling of partitions and counters, public information exhibits and additional furniture. The estimate for these items is \$5 000.

265. The balance of the provision, totaling \$2 800, covers miscellaneous services such as insurance for interpretation equipment, photographic services, external printing etc.

also service meetings other than those of the Conference and the Board approximately 33% of such costs are allocable to the Board;

- (b) That to provide translation and documents services for the Board and its committees, approximately 42% of the salaries and common staff costs of the Division of Language Services are similarly allocable; and
- (c) That in 1962 approximately 7 500 000 pages of documentation will be required for the Board and its committees and that salaries and other costs proportionate to this amount of reproduction work are chargeable to the Board.

(c) Explanation of estimates

273. Salaries and wages	\$229 000
1961	270 000
1960	195 111

274. The estimate covers the salaries and wages of the Secretariat of the General Conference and the Board, the Division of Language Services and the Division of Conference and General Services, calculated on the basis of the assumptions stated above.

275. It will be noted that there is a reduction of \$41 000 in the estimate for 1962 as compared to that for 1961, the main reason being that experience in 1960 has indicated a falling off in the amount of documentation for the Board and its committees as compared with 1959. While it cannot be assumed that this downward trend will continue at the same rate in 1961 and 1962, it may well be that previous estimates in this regard were high. Thus the calculated share of salaries of the staff of the Division of Language Services and the Documents Services which are chargeable under this section are considerably reduced in 1962. The proposed re-grading of two interpreters' posts from P-4 to P-3 results in a further slight reduction.

276. Common staff costs	\$ 95 000
1961	116 000
1960	81 361

277. Common staff costs include staff emoluments other than salaries and wages to the total cost of which they are directly related. In terms of the assumptions stated above, a part thereof is allocable to the expenses of the Board.

278. Temporary assistance	\$38 000
1961	52 000
1960	74 179

279. The need for temporary staff during meetings of the Board is expected to decrease even more in 1962 as a result of the increase in the permanent staff for language services and interpretation authorized in the budget for 1961.

280. Official travel	\$1 000
1961	1 000
1960	887

281. As in previous years, provision is made in 1962 for such official travel as the Chairman of the Board of Governors may be required to undertake, or for such other travel which the work of the Board may demand.

282. Common services	\$17 500
1961	17 500
1960	18 223

283. The estimate for 1962 is the same as for 1961, and slightly below actual expenditure during 1960. It is expected that by 1962, when the Board will be housed in its new

premises close to the Secretariat, the pattern of expenditure under this item will change somewhat, particularly with regard to rental charges, but since experience in this regard is not yet available, the estimate has been maintained at the 1961 level.

284. Printing and office supplies	\$17 500
1961	20 500
1960	17 016

285. A reduction in the estimate for supplies is proposed because, as has been indicated above, the reproduction of documents for the Board and its committees is not expected to increase much beyond the 1960 level.

286. Permanent equipment	-
1961	\$93 000
1960	-

287. No provision is made for permanent equipment for the Board in 1962 since it is expected that the amount of \$93 000 provided in 1961 will be sufficient to meet the cost of all installations in the Board's new premises.

II. FUNCTIONAL PROGRAM ACTIVITIES

3. Panels and committees

Table 31

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Panels and committees	121 991	154 000	160 000

(a) General

288. The estimate covers expenses in connection with meetings of SAC and ad hoc scientific and technical panels convened to advise and assist the Director General in the implementation of approved activities and to act as working parties of experts in the development of international standards, codes and regulations for the peaceful uses of nuclear energy. It does not include the salaries and other costs of the staff required to carry out this activity.

289. Experience has demonstrated that one of the most effective and successful methods for furthering certain specialized parts of the Agency's program is to obtain advice and guidance from panels of outstanding experts appointed because of their personal competence and drawn from various Member States, so as to represent a cross section of the available experience and knowledge. In 1960 12 panels were constituted and 16 meetings were held. Two meetings of SAC were also convened. One panel, that on the diagnoses and treatment of acute radiation injury, was co-sponsored by WHO.

290. During 1962, new problems, changing circumstances or changes in emphasis dictated by future developments may make it necessary to substitute other panels for those now planned. The list of meetings which follows must therefore be considered as tentative; it includes some topics, the consideration of which may have to be deferred to a future year.

Scientific Advisory Committee

Techniques and procedures of information and documentation

Nuclear power costing

Light water lattices

Siting of reactors

Manual on low level waste techniques

Review of transport regulations

Diagnosis and treatment of radioactive poisoning

Manual on the establishment of a health physics service in small nuclear centers

Technical methods of monitoring waste disposal into the sea

Preparation of a critical review and the compilation of thermochemical data of interest in advanced nuclear technology

Determination of hydrogen and oxygen isotopes in natural water

Decontamination methods (environmental, nutritional and medical aspects)

Irradiation control of insect pests in stored grains in sub-tropical and tropical areas

Laboratory training manual on the use of radioisotopes in studies of soil fertility and plant nutrition

Co-ordination of research contracts on radioisotope applications in medicine

Use of radioisotope teletherapy units and super-voltage radiations in radiotherapy

Evaluation of the results of research contracts in radiobiology

Co-ordination of research contracts on safe disposal of radioactive waste into the lithosphere

Non-destructive isotopic analysis of irradiated fuel of elements

Legal implications of the disposal of radioactive waste into the sea

Legal implications of the disposal of radioactive waste into fresh water
 Legal studies connected with the revision of the Agency's transport regulations
 Joint arrangements between small states relating to liability and state
 responsibility for nuclear hazards and the general question of
 co-operation between states to help them to meet their indemnification
 obligations under a convention regarding nuclear powered ships.

(b) Assumptions

291. It is assumed:

- (a) That approximately 20 panel and committee meetings will be convened in 1962, with each meeting lasting approximately eight days inclusive of travel time;
- (b) That except in the case of SAC meetings, honoraria will be paid ordinarily only in instances of salary loss or loss of annual leave by reason of service with the Agency, or when, as in the case of a university professor, private practitioner or retired person, the panel member ordinarily receives a fee for his services;
- (c) That panel and committee members will be drawn from a wide geographic area;
- (d) That the cost of travel as well as a daily expense allowance of \$20 will be paid to each panel member; but that the Agency will not bear any costs for advisers or alternates who may accompany panel members; and
- (e) That certain miscellaneous administrative expenses will be incurred in connection with each panel and committee meeting.

(c) Explanation of estimates

292. On the basis of past experience, the average cost of a meeting is estimated at approximately \$7 500. In addition, the two meetings of SAC will cost approximately \$10 000. The total expenditure under this section of the budget is therefore estimated to be \$160 000.

4. Special missions

Table 32

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Special missions	58 159	126 000	70 000

(a) General

293. The estimate covers expenses arising in connection with the dispatch of special missions to Member States, at their request, to conduct surveys, and in general to engage in consultations intended to culminate in Agency projects. It does not include the salaries and other costs (except travel) of staff participating in these missions.

294. In 1960 two preliminary assistance missions and two nuclear power survey missions were dispatched to Member States. In 1960 requests by Member States for missions were considerably fewer than had been anticipated and a substantial saving resulted in the appropriation for this purpose. Further savings were effected by using wherever possible teams

intended to achieve several objectives. The program for 1962 has been described in paragraphs 76-78 above. In brief, provision has been made for one preliminary assistance mission, two follow-up missions, two power survey missions, one reactor power project mission and one mission in connection with the possible establishment of a regional training center. In addition, one staff member will be traveling for approximately 150 days in connection with the international standardization of thyroid radio-iodine uptake.

295. The 1962 program is, basically, a continuation of that for 1960 and 1961 but the number of missions will be less because it is expected that fewer Member States will require their services.

(b) Assumptions

296. It is assumed:

- (a) That, when feasible, teams intended to achieve several objectives will be dispatched;
- (b) That in the composition of the teams appropriate use will be made of expert consultants offered to the Agency by Member States either entirely or partially free of cost;
- (c) That although the composition of special missions will vary with the purpose of the mission, as will the length of time spent in travel status, on an average the team will consist of four members and will spend between three and four weeks in the field and one week in Vienna for briefing and the writing of reports; and
- (d) That ordinarily fifty per cent of the subsistence costs and the entire cost of travel within Member States will be borne by host Governments whereas international travel costs and consultants' fees will be borne by the Agency.

(c) Explanation of estimates

297. The cost of missions has varied from as little as \$1 000 to as much as \$24 000. In 1960, the average cost of a mission was \$14 540. In developing the estimates for 1962, it has been assumed that on an average each mission will cost approximately \$10 000, because only one preliminary assistance mission is planned. An amount of approximately \$3 000 has been provided to meet the cost of travel in connection with the international standardization of thyroid radio-iodine uptake.

5. Seminars, symposia and conferences

Table 33

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Seminars, symposia and conferences	126 478	170 000	180 000

(a) General

298. The estimate covers the costs of organizing and conducting seminars, symposia and conferences and other scientific meetings devoted to furthering the development and exchange of information on the peaceful uses of nuclear energy. It also covers the Agency's financial contribution when it co-sponsors scientific meetings of interest to it, but does not include the salaries and other costs of the staff required to implement the program.

299. As usual, SAC has been consulted about the scientific meetings which it would be desirable to organize and the following tentative program for 1962 is proposed:

- (a) Conference on the Corrosion of Reactor Materials;
- (b) Symposium on Reactor Safety and Hazards Evaluation Techniques;
- (c) Symposium on Thermochemical Properties of Nuclear Materials;
- (d) Symposium on Radiation Damage in Solids and Reactor Materials;
- (e) Symposium on the Effects of Ionizing Radiation at the Molecular Level;
- (f) Symposium on Inelastic Scattering of Neutrons in Solids and Liquids;
- (g) Symposium on the Use of Radioisotopes in Soil-Plant Nutrition Studies;
- (h) Symposium on Neutron Detection, Dosimetry and Standards;
- (i) Symposium on the Treatment and Storage of High-Level Radioactive Wastes;
- (j) Seminar on the Practical Applications of Short-Lived Radioisotopes Produced in Small Research Reactors; and
- (k) Seminar on Theoretical Physics.

300. Should it prove necessary during 1962 to arrange a diplomatic conference on civil liability for nuclear damage, the Director General may have to consider deferring one or more of the scientific meetings, or in consultation with the Board, find alternative methods of financing it.

(b) Assumptions

301. It is assumed:

- (a) That the program in 1962 will consist of 11 scientific meetings and that the average duration of each meeting will be approximately eight days, inclusive of travel time;
- (b) That the Agency on its own initiative or by invitation will co-sponsor a number of scientific meetings, on subjects of direct concern to the Agency, organized and conducted by the other international organizations with whom the Agency maintains relations;
- (c) That the costs of travel of discussion leaders and key participants to and from the place where the meetings will be held, and of daily expense allowances, will be borne where necessary by the Agency. Other participants will bear their own expenses;
- (d) That the cost of travel and salaries for scientific secretaries that may be needed for some of these meetings will be borne by the Agency;
- (e) That the extra costs of organizing and conducting meetings held outside Vienna will be borne by the Government that acts as host. However, in view of the desirability of holding some scientific meetings in less-developed areas, the Agency will, in certain cases, bear some of the extra costs, it being left to the Director General to negotiate such contributions according to the circumstances in each case; and
- (f) That the Agency will bear all incidental administrative costs such as those arising in connection with documentation, translation and interpretation services.

(c) Explanation of estimates

302. The experience gained in 1960 - the first year in which a full program of Agency scientific meetings was implemented - shows that symposia and seminars may range in cost from about \$5 000 to about \$10 000 and major meetings from about \$14 000 to about

\$25 000. The estimate for 1962 has been developed on the basis of one major scientific conference estimated to cost \$20 000; nine seminars or symposia at an average cost of \$8 000, of which two may be held outside Europe in accordance with assumption (e) above, involving additional costs of \$22 000; one seminar on theoretical physics estimated to cost \$17 000; plus a total provision of \$49 000 for co-sponsoring the Conference on Maritime Law, referred to in paragraph 148 above, and scientific meetings of other international organizations.

6. Distribution of information

Table 34

Item of expenditure	1960	1961	1962
	Actual	Budget	Estimate
	\$	\$	\$
Printing, block-making, art-work and paper	116 221	141 000	158 000
Authors' fees	5 792	10 000	9 500
Scientific editing	1 412	10 000	4 000
Translation services	3 575	20 000	13 000
Mailing costs	14 707	10 000	20 000
Library	25 952	49 000	40 000
Visual media	10 001	15 000	15 500
Total	177 660	255 000	260 000

(a) General

303. The estimate covers all costs of the Agency's program of publications and distribution of information; it includes expenditure on the Library, but not the salaries and wages and other expenses of the permanent staff of the documents and language services. It also does not cover the cost of reproducing documents for the General Conference and the Board, nor of the reproduction of documents prepared by the Secretariat and not intended for public distribution.

304. It is desirable that all publications of the Agency should be published in the four working languages, but for technical and financial reasons this may not always be possible. For instance, in connection with the proceedings of seminars, symposia and conferences, it is planned to publish the scientific papers in the original language in which they are submitted with abstracts in all four languages. Certain specialized publications which are directed towards a limited audience may be published in one or two working languages only, the language or languages being chosen so as to provide for the most effective use appropriate to the content. Other types of publications such as manuals on safety and safeguard procedures will be published in all working languages.

305. The funds provided for the distribution of information in 1960 were almost fully utilized, the expenditures and obligations being only \$6 340 less than the total amount provided. Already, in the early months of 1961, it appears that the provision of \$255 000 for that year will also be fully utilized.

306. The completion of the 1961 program will bring the number of conference proceedings published up to 20, the Safety Series booklets to 16, the issues of the Review Series to 20, the bibliographies to five and the volumes of directories to five. Further numbers of the Journal of Plasma Physics and Thermonuclear Fusion and several technical reports and booklets for general reference and documentation have also been issued.

307. The program for 1962 is, in the main, a continuation of that for the preceding three years. Co-ordinated planning now makes it possible to describe the program under certain main heads, as below:

(i) Documentation

308. The List of References, the World List of Institutions Concerned with Atomic Energy, the List of Conferences, the Review Series, the Bibliographical Series and the List of Bibliographies will continue to be issued. A list of journals dealing with nuclear energy will also continue to be published in 1962.

309. The International Atomic Energy Agency Bulletin will continue to be published.

(ii) Medicine, agriculture and biology

310. The proceedings of two conferences held in 1961 will be published in 1962 - The Conference on Ionizing Radiation on the Nervous System, and that on Radioisotopes in Animal Biology and the Medical Sciences.

311. The 1962 program also provides for the publication of the proceedings of other conferences as well as of special studies carried out by the Secretariat or by panels. The topics under consideration are: Practical Applications of Short-lived Radioisotopes Produced in Small Research Reactors (Proceedings); Use of Radioisotopes in Soil-Plant Nutrition Studies (Training Manual); Use of Isotopes in Animal Biology (Training Manual); Control of Insects through Radiation; Application of Radioactive Isotopes in Medicine (Review Series); Biological Effects of Radiation (Review Series).

(iii) Chemistry, geology and raw materials

312. Provision has been made for the publication in 1962 of the proceedings of the Symposium on Thermochemical Properties of Nuclear Materials and the Symposium on Methods of Prospecting for and Evaluation of Nuclear Raw Materials.

313. The following subjects are under consideration for the Review Series: Radioisotopes in Analytical Chemistry; Analysis of Stable Isotope Mixtures; Fractionated Crystallization of Melts as a Means for Separating and Purifying Labeled Mixtures; Geochemistry of Lithium; Utilization of Nuclear Plates in the Study of the Radioactivity of Rocks; Identification of Radioactive Minerals.

(iv) Economics

314. In 1962, it is expected that the following documents may be published:

- (a) At least one and possibly two studies on the prospects of nuclear power in selected countries;
- (b) A general study on the costing of nuclear power and supporting facilities within a developing system; and
- (c) A study on the economic significance of the industrial uses of radioisotopes or a study on the economics of the utilization of low-temperature nuclear heat.

(v) Health, safety and waste disposal

315. It is proposed to issue publications on the following topics: Establishment of Health Physics Services in Small Nuclear Organizations (Manual); Basic Safety Standards; Treatment of Low Level Wastes (Manual); Handling of Patients in Radiation Incidents (Manual); Practical Procedures for the Assessment of Internal Radioactive Contamination (Manual); Education on Radiological Health and Safety (Guide); Methods of Monitoring the Disposal of Radioactive Waste into the Sea (Manual); Disposal of Radioactive Waste into Fresh Water; Treatment and Storage of High Level Wastes (Proceedings). In addition,

the following reviews may be considered for publication: Radiation Shields and Shielding; Radioactive Decontamination of Plant and Equipment; and Determining Environmental Contamination.

(vi) Industrial applications

316. The program for 1962 will include publication of a Catalogue of the Industrial Applications of Radioisotopes by Industry; and two reviews, namely: Radiation Sources in Chemistry; and Isotopes in Automatic Control Instruments.

(vii) Physics, plasma physics and electronics

317. It is expected that the following titles will be published in 1962: Neutron Detection, Dosimetry and Standards (Proceedings); Plasma Physics and Controlled Nuclear Fusion Research (Proceedings); Inelastic Scattering of Neutrons in Solids and Liquids (late 1962/early 1963) (Proceedings); Tropicalization of Nuclear Equipment (Panel Report); Performance of Nucleonic Instruments for Health and Safety Measurements (Panel Report); the Interconnection between Electronic Apparatus; and Standard Dimensions of Accessory Items.

318. A bibliography on fusion research, the preparation of which was started in 1961, will be completed and is expected to be issued in 1962. A small booklet on the terminology used in the thermonuclear fusion research may also be published in the four working languages.

319. The Review Series will include at least two publications, namely: Scattering Neutron Spectra and Neutron Fission Cross-sections, and Calorimetric Measurements of High Energy Radiation.

320. Work may also be started on the compilation of nuclear data of special interest to reactor design.

(viii) Reactor physics and reactors

321. Following the publication of three volumes of the Directory of Nuclear Reactors, supplementary issues will be published in 1962. The proceedings of conferences held late in 1961 on Power Reactor Experiments, Utilization and Programming of Research Reactors, and Fast and Intermediate Reactors are also expected to be ready for publication in 1962.

322. The proceedings of the following meetings which are planned for 1962 will also become available for publication: Symposium on Reactor Hazards Evaluation Techniques; Conference on Corrosion of Reactor Materials; and Symposium on Radiation Damage in Solids and Reactor Materials.

323. The Review Series will provide a means for dealing with related subjects, such as: fuel elements technology; materials for reactor construction; control rod mechanisms; treatment of spent fuel; and criticality studies.

(b) Assumptions

324. It is assumed:

- (a) That the 1962 publications program will comprise about 14 000 printed pages, and that the average print-run will be 3 000 copies;
- (b) That approximately 10 000 pages will be printed by commercial printers and about 4 000 pages by the Agency's facilities;
- (c) That about 13 000 pages will be contributed free of charge by the authors of papers submitted to conferences, seminars and symposia, or compiled or written by members of the Secretariat assisted by experts;

- (d) That approximately 1 000 pages will be prepared under contract by external authors, particularly for the Review Series, the Journal of Plasma Physics and Thermonuclear Fusion and various articles or pamphlets;
- (e) That approximately 13 000 pages will be edited by the permanent staff of the division; and that 1 000 pages will be edited under contract by external editors and proof-readers;
- (f) That in addition to translations done by the Languages Division, about 1 700 pages of special scientific manuscripts will be translated under contract with external translators;
- (g) That approximately one-third of all publications will be distributed free of charge to Member States, atomic energy commissions, the United Nations and the specialized agencies, depository libraries, inter-governmental and non-governmental organizations, exchange centers and SAC, and two-thirds will be sold to individuals, directly or through sales agents;
- (h) That publications issued in previous years will continue to be put on sale and, to a limited extent, distributed free;
- (i) That in 1962 the Agency will produce a second training film on health and safety measures and that the United Nations and one or more of the specialized agencies will co-operate in the project; and
- (j) That an inexpensive portable exhibit which was assembled in 1960 will be on view in various Member States in 1962.

(c) Explanation of estimates

325. Printing and paper	\$158 000
1961	141 000
1960	116 221

326. The estimate of printing costs is derived from the average cost price of \$14.25 per page at a print-run of 3 000 copies (in previous years the price per page referred to a print-run of 3 500 copies; there has been, however, an increase in wages and salaries in the printing industry resulting in an increase in printing costs). It includes cost of paper, printing, drawings, block-making and binding. On the assumption that 10 000 pages will be printed externally, the total cost would be \$142 500, to which must be added: \$6 000 paper costs for the 4 000 pages to be produced internally; \$6 000 for the cost of films and plates for internal reproduction, and \$3 500 to cover the cost of external art work.

327. Authors' fees	\$ 9 500
1961	10 000
1960	5 792

328. Most manuscripts, particularly scientific papers submitted to Agency conferences, symposia and seminars and, of course, papers prepared by the Secretariat, do not entail authors' costs. These arise only in connection with the publication of the Review Series, the Journal of Plasma Physics and Thermonuclear Fusion, and some articles and small pamphlets. The estimate of authors' fees is derived from the assumption that 1 000 pages will be produced under contract at an average fee of \$9.50 per page.

329. Scientific editing	\$ 4 000
1961	10 000
1960	1 412

330. It is expected that by the end of 1961 the authorized staff of scientific editors will have been recruited and, therefore, less reliance will have to be placed on external scientific editing, thus permitting a decrease in this estimate from \$10 000 in 1961 to \$4 000 in

1962. There will continue to be a need for some specialized editing assistance by scientists under contract. The estimate also includes payments for part-time proof-reading to be performed at peak workload periods.

331. Translation services	\$13 000
1961	20 000
1960	3 575

332. The average cost of scientific translation is \$7.50 for each standard page, including typing. The estimate is derived from the stated assumption that approximately 1 700 pages of manuscript will have to be translated in 1962.

333. Mailing costs	\$20 000
1961	10 000
1960	14 707

334. The proposed increase in the mailing and packing costs is directly due to the increased number of publications in 1961, as well as to the need to meet requests for copies of publications produced in previous years. Moreover, mailing costs have increased. It is now evident that the amount budgeted under this sub-section in 1961 will not suffice to meet requirements. Additional costs are also incurred for the packing and mailing of the Fusion Journal.

335. Library	\$40 000
1961	49 000
1960	25 952

336. The estimate provides \$14 000 for books, \$17 000 for periodicals including back issues, \$1 500 for dictionaries and other reference books, \$2 500 for legal and legislative publications and \$5 000 for binding periodicals.

337. Visual media	\$15 500
1961	15 000
1960	10 001

338. The estimate provides for the cost of a second training film on health and safety measures. It is estimated that the Agency's share of this project will be \$10 000. In addition, \$3 000 is provided to cover the cost of documentary film material on suitable Agency projects. For instance it may be desirable to produce some documentary film material on the Monaco laboratory and on the NORA project and also perhaps on some of the Agency's technical activities. In addition, efforts will continue to be made to acquire films on aspects of nuclear energy relating to the subjects covered by the Agency's scientific meetings. An amount of \$2 500 is provided for the maintenance and shipping costs of the Agency's portable exhibit.

7. Scientific and technical services and laboratory charges

Table 35

Item of expenditure	1960	1961	1962
	Actual	Budget	Estimate
	\$	\$	\$
Research contracts	435 393	505 000	665 000
Monaco research project	-	60 000	60 000
Technical contracts	2 000	22 000	22 000
Health and safety services	-	-	4 000
Laboratory charges	64 419	116 000	134 500
Total	501 812	703 000	885 500

(a) General

339. The estimate covers all costs, under the Regular Budget, of scientific and technical services - including technical and research contracts - necessary for carrying out the Agency's statutory functions, particularly those concerning health and safety, safeguards and the distribution of scientific information, and those services performed in the Agency's laboratory facilities which should properly be charged to the Regular Budget.

(b) Assumptions

340. It is assumed:

- (a) That the Agency's research contract program will, in 1962, reach a stage of consolidation, desirable changes in its direction being achieved without an increase in expenditures for new contracts over those incurred in preceding years;
- (b) That a major proportion of the sums set aside for research contracts in 1962 will be required for the renewal of contracts placed in 1959, 1960 and 1961;
- (c) That the Agency's contribution to the costs of the scientific collaboration with the oceanographic laboratory of the Government of Monaco will remain about the same as has been estimated for 1961;
- (d) That the requirements for technical services will not be higher than those estimated for 1961, and that no increase in the level of support given to ICRU and ICRP in the form of technical contracts will be required; and
- (e) That 40% of the total expenditures for the Agency's laboratory facilities will concern work which should, under the Statute, be financed from the Regular Budget.

(c) Explanation of estimates

341. Research contracts		\$665 000
	1961	505 000
	1960	435 393

342. In arriving at an estimate of the funds required for the 1962 research contracts program, consideration must first be given to the need for continuing support of research projects for which contracts have been awarded in preceding years. Since the average duration of a research project is about three years and contracts are awarded for a one

year period only, provision must be made for the renewal of contracts concluded in 1959, 1960 and 1961. Experience has shown that about 70% of the sum spent in any one year for new contracts will be needed for the renewal of contracts in the following year, 50% in the third year and probably about 30% in the fourth year. Applying these percentages to the expenditure for new contracts in 1959 and 1960 and that estimated for 1961 (but excluding from these calculations the costs of the Monaco research project in 1961 and of its continuation in 1962 which are dealt with separately below), a figure of \$390 000 is arrived at as the amount required to finance, in 1962, renewals of contracts entered into in earlier years.

343. The provision for new contracts in 1962 has therefore been kept at \$275 000 which is the same as the average provided for the purpose in preceding years. The allocation of this sum to various subjects of research, (see Table 36 below), takes into account views expressed by many delegations during the fourth session of the General Conference and by SAC during its examination of the Agency's research contracts program in November 1960. It is planned to start a shifting emphasis towards the more practical applications of nuclear energy, by allocating smaller sums than in preceding years for the award of new contracts on research in waste disposal, health physics, radiobiology, safeguards methods and power reactor studies. The increase in total expenditures over 1961 in the first three groups is mainly due to increased requirements for the renewal of contracts entered into in the years 1959 to 1961. Since no such increases in renewal costs are anticipated for 1962 in respect of safeguards methods and power reactor studies, the total expenditures in these two groups will be kept at the 1961 level. Thus, \$165 000 are allocated for the award of new contracts in the five fields of research mentioned above as compared with an average of \$275 000 provided for this purpose in preceding years.

344. This will make it possible to effect the shift of emphasis towards practical applications of nuclear energy by utilizing the remaining \$110 000 to award new contracts for research in a further group of subjects. SAC has particularly recommended that contracts should be granted for research in the applications of radioisotopes in agriculture, hydrology and medicine. Research projects falling within this broad group will provide a means for generating new information not only of general interest to the Agency's membership as a whole, but of specific interest to developing countries, and relating to a field of work with which a substantial part of the Agency's technical assistance projects are concerned. Other research, of clearly limited interest to one or a small group of Member States, or designed especially to assist an institute in a Member State will, as in the past, be financed from the Operational Budget.

345. Research contracts in the applications of radioisotopes in agriculture, hydrology and medicine will, as far as possible, be placed in the less-developed countries. Institutions located in the same geographical or climatic region will wherever possible be awarded contracts on related subjects so that the Agency will be in a position to assume a co-ordinating role and provide additional assistance through advice by its scientific staff.

346. The following table shows the proposed distribution of expenditures between the various subjects of research during 1959 and 1960 and the estimates for 1961 and 1962.

Table 36

Subject matter of research	1959	1960	1961	1962
	Actual	Actual	Estimate	Estimate
	\$	\$	\$	\$
Safe disposal of radioactive waste	64 540	137 415	115 000	145 000
Health physics and radiation protection	148 586	102 153	190 000	205 000
Radiobiology	68 780	139 415	85 000	95 000
Safeguards methods	31 000	47 000	65 000	60 000
Power reactor studies	-	9 410	50 000	50 000
Radioisotope applications in agriculture, hydrology and medicine	-	-	-	110 000
Total	312 906	435 393	505 000	665 000

347. As has been described above, an increase in the allocation for new contracts in radioisotope applications will somewhat reduce the provision for new contracts in what have been the standard subjects of research in the Agency's program. It is, however, hoped that it will be possible to finance at least some worthwhile new contract proposals by making further use of the offer of co-operation and financial assistance from the Government of the United States to support research on the peaceful uses of nuclear energy carried out under the auspices of the Agency by institutions in any Member States. The total amount of the support which can be expected from this source cannot, however, be determined with any certainty.

348. Monaco research project \$ 60 000
1961 60 000
1960 -

349. The Agency's contribution to the costs of the scientific collaboration with the oceanographic laboratory of the Government of Monaco will, in 1961, amount to \$60 000 and will be met from the appropriation for research contracts on the subject of safe disposal of radioactive waste. This expenditure is now shown as a separate sub-item of this appropriation section and, for purposes of comparison, the estimated costs of the total research contract program for 1961 are shown as \$505 000 in Table 35 instead of the approved total of \$565 000. [15] Similarly, the estimated costs of research in safe disposal of radioactive waste are shown in Table 36 above as \$115 000 instead of the \$175 000 originally provided. [15]

350. It is expected that the expenditures in 1962 for the program of work at the Monaco laboratory will not exceed those to be incurred in 1961; it is therefore proposed to allocate the same amount as provided in 1961.

351. Technical contracts \$22 000
1961 22 000
1960 2 000

352. Co-operation will be continued with other scientific libraries and laboratories which furnish the Agency with services that otherwise would have to be performed at Headquarters at much greater expense. The granting of contracts for the standardization of terminology and the development of suitable schemes for classifying the literature on nuclear sciences will also continue in 1962. In addition, \$12 000 are provided for the renewal of the technical contracts to ICRP and ICRU to support the work of these organizations, the results of which will continue to be of significance to the Agency's own activities in connection with radiation protection and the standardization of radioactive units and measurements.

[15] GC(IV)/116, Tables 36 and 37.

353. Health and safety services	\$4 000
1961	-
1960	-

354. As stated in Chapter I, it is foreseen that the Agency's safety standards and regulations may be applied to the Agency's own operations as well as to projects under its technical assistance and research contracts programs by the provision of technical health physics services. For this purpose a small stock of reasonably versatile monitoring equipment and of protective clothing, decontaminating agents and similar articles, as mentioned in the Agency's Manual on the Safe Handling of Radioisotopes and its Addenda, must be procured and held in the Division of Health, Safety and Waste Disposal.

355. In order to ensure that this equipment is at all times in good working order, provision must be made for the calibration of measuring instruments, the renewal of batteries and counting tubes and the repair of defective units.

356. The estimated budgetary requirements thus arising in 1962 are as follows:

Additional monitoring equipment, including	
high range portable survey meters	\$1 200
Batteries and replacement counting tubes	200
Repairs to equipment	200
Calibration equipment - including radioactive sources	300
Protective clothing and face masks	200
Decontamination equipment and supplies	300
Personnel decontaminating agents and equipment	1 600
	<hr/>
	\$4 000
	<hr/>

357. Laboratory costs chargeable to the Regular Budget	\$134 500
1961	116 000
1960	64 419

358. In 1962, as in previous years, it is anticipated that a substantial proportion of the activities of the laboratories will have to be financed from the Regular Budget. Taking into account the experience gained in the operation of the laboratory facilities in 1959, 1960 and 1961, and the program of work planned for 1962, it is assumed that about forty per cent of the total expenditures for the laboratories in 1962 (exclusive of equipment) should be borne by the Regular Budget. The estimate of \$134 500 bears that ratio to the \$337 000 in operating costs shown under the section of the Operational Budget dealing with the laboratory facilities, where a detailed explanation of the estimated costs is given.

III. THE SECRETARIAT

8. Salaries and wages

Table 37

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Established posts	1 967 623	2 186 000	2 282 000
Overtime and night differential	33 008	30 000	30 000
Temporary assistance	76 444	65 000	65 000
Consultants	71 900	90 000	90 000
Total	2 148 975	2 371 000	2 467 000

(a) General

359. The estimate covers salaries and wages, overtime and night differential of all staff of the Secretariat and the costs of temporary assistance and consultants employed by the Agency except those costs properly chargeable to:

- (a) The General Conference;
- (b) The Board of Governors;
- (c) The Operational Budget; and
- (d) Self-supporting activities such as the Agency's commissary and restaurant.

360. A manning table for 1962 covering each office and division of the Secretariat and all staff employed in connection with operational and self-supporting activities of the Agency appears as Annex II. This manning table is considered tentative in so far as it is within the authority of the Director General to make transfers of posts between the established offices and divisions of the Secretariat.

(b) Assumptions

361. It is assumed:

- (a) That ninety-five per cent of the total Professional posts provided in the staffing plans for 1961 and 1962 respectively will be filled by the end of those years;
- (b) That all posts in the General Service and Maintenance and Operatives categories, authorized for 1961 and 1962, will be filled by the end of those years;
- (c) That a recruitment lag factor of thirty per cent will be applicable to additional staff to be employed in 1962; and
- (d) That a lapse factor (interval between termination of services and the recruiting of a replacement) of three months for Professional staff and two weeks for General Service and Maintenance and Operatives Service staff will be applicable to replacements recruited in 1962.

(c) Explanation of estimates

362. Salaries and wages \$2 282 000
1961 2 186 000
1960 1 967 623

363. The estimate represents salaries and wages of staff authorized for 1961 and the additional staff proposed for 1962, taking into account the foregoing assumptions and the general statement.

364. The calculations have been based on the salary scales for Professional staff as set out in Annex II of the Provisional Staff Regulations [16] and the salary scales approved by the Board for staff in the General Service and Maintenance and Operatives categories.

Table 38

1960	1961	1962	Position	1960	1961	1962
				\$	\$	\$
1	1	1	Director General	20 000	20 000	20 000
5	5	5	Deputy Director General	75 000	75 000	75 000
18	18	18	Director (D-1/2)	211 500	211 500	211 500
49	49	57	Senior Officer (P-5)	428 750	428 750	498 750
69	74	73	First Officer (P-4)	503 700	540 200	532 900
66	70	72	Second Officer (P-3)	396 000	420 000	432 000
17	17	17	Associate Officer (P-2)	81 600	81 600	81 600
14	14	19	Assistant Officer (P-1)	50 400	50 400	68 400
239	248	262	Sub-total	1 766 950	1 827 450	1 920 150
271	291	299	General service staff	460 700	519 435	508 300
106	106	106	Maintenance and Operatives Service staff	103 880	103 880	113 950
616	645	667	Total	2 331 530	2 450 765	2 542 400
<u>Add:</u>	Special post and other allowances			23 008	20 000	25 000
	Post adjustment			74 770	97 000	102 000
	Seniority salary increments			96 200	142 000	197 000
	Total			2 525 508	2 709 765	2 866 400
<u>Less:</u>	General Conference			67 006	75 000	76 000
	Board of Governors			195 111	270 000	229 000
	Recruitment lag and lapse factor			295 768	178 765	279 400
	Net total			1 967 623	2 186 000	2 282 000

365. Overtime and night differential \$30 000
1961 30 000
1960 33 008

366. Peak work periods which occur throughout the year necessitate overtime on the part of the staff of the Secretariat. Professional staff members are not recompensed for such overtime but General Service and Maintenance and Operatives personnel are entitled to compensatory leave or, when this is not possible, to payment for overtime at rates set forth in the Staff Rules. In addition, a small night differential is paid to personnel in these two categories who are required to work outside normal working hours.

[16] INFCIRC/6.

(a) General

373. The estimate covers common staff costs exclusive of the amounts chargeable to:

- (a) The General Conference;
- (b) The Board of Governors;
- (c) The Operational Budget; and
- (d) Self-supporting activities such as the Agency's commissary and restaurant.

374. Common staff costs arise in connection with the allowances and benefits prescribed in the Provisional Staff Regulations approved by the Board and the Staff Rules promulgated by the Director General. In addition they cover the cost of language training and medical services.

(b) Assumptions

375. It is assumed:

- (a) That ninety-five per cent of the Professional posts and all of the General Service and Maintenance and Operatives posts provided in the staffing plans for 1961 and 1962 respectively will be filled at the end of those years;
- (b) That a lapse factor of three months for Professional staff and two weeks for General Service and Maintenance and Operatives Service staff will be applicable to replacements recruited in 1962;
- (c) That 35 Professional and 30 General Service staff members will be replaced;
- (d) That except for items in respect of which changes are foreseen or are already in force, the actual average costs of the preceding years will be applicable in 1962;
- (e) That approximately forty per cent of the General Service staff will be internationally recruited and therefore eligible for non-residents' allowance; and
- (f) That approximately thirty-five per cent of the staff in the General Service and Maintenance and Operatives Service categories will receive the language allowance.

(c) Explanation of estimates

376. Pension Fund contribution	\$ 250 000
1961	221 000
1960	184 851

377. The Agency's contribution to the United Nations Joint Staff Pension Fund is 14% of the pensionable remuneration of staff on permanent and probationary appointments, and 4.5% of that of staff on fixed-term appointments in the Professional and General Service categories. Employees in the Maintenance and Operatives Service category do not participate in the Pension Fund but are covered by the Austrian social security system.

378. Following a detailed study by a group of experts, and consultations among the executive heads of the organizations affiliated with the United Nations Joint Staff Pension Fund, the General Assembly of the United Nations has adopted, with effect from 1 April 1961, important changes in the provisions of the Fund. The most significant of these changes consists of establishing the amount of pensionable remuneration, on the basis of which contributions paid by participants and by the employing organizations are assessed, at a notional figure set half way between the net and gross salaries under the United Nations staff assessment plan. A further increase of pensionable remuneration of Professional and higher staff will result from the addition of an amount corresponding to the weighted average of post adjustments payable at various duty stations. The General

Assembly has recommended the adoption of these changes by the international organizations of the United Nations family as part of the common system of salaries, leave and benefits. Consequently, the Director General has taken steps to apply the new provisions, as from 1 April 1961, to the pensionable remuneration payable to the staff of the Agency.

379. In comparing the estimates for 1961 and 1962, therefore, it must be borne in mind that the unforeseen requirement in 1961 will add approximately \$20 000 to that year's cost. It is, however, hoped that any deficit which may arise can be covered by savings in other common staff costs.

380. Medical benefits and social security contribution	\$48 000
1961	41 000
1960	34 376

381. In addition to the Agency's contribution to the staff medical insurance plans the estimate includes the Agency's contribution to the Austrian social security system for staff in the Maintenance and Operatives Service category. It also includes the employers contribution to the Austrian unemployment insurance in the case of General Service staff on fixed-term or probationary appointments.

382. Owing to the progressive increase in doctors' fees and other medical expenses, the Director General has negotiated improvements in various benefits provided under the health insurance scheme in which a large proportion of the staff of the Agency participates. These improvements entail, however, a reasonable increase in the premiums towards the cost of which the Agency makes a contribution equal to that of the staff members concerned. The estimate for 1962 takes this increase, amounting to approximately \$10 000 per annum, into account. It may be that the amount provided for 1961 will not be sufficient to cover the increased requirements.

383. Dependency allowance	\$150 000
1961	140 000
1960	122 826

384. On the basis of a review of dependency benefits paid to employees in Austria, it was decided that an upward adjustment of dependency allowances payable by the Agency to its staff in the General Service and Maintenance and Operatives Service categories was necessary. Under the authority granted him in the Provisional Staff Regulations, the Director General has, therefore, established with effect from 1 February 1961 new rates of allowance for a dependent spouse (AS 2 400 instead of 1 200), a dependent child (AS 3 500 instead of 3 120), and a dependent parent, brother or sister (AS 1 800 instead of 1 200). The estimate for 1962 takes this increase into account. Part of the increase is also due to the recruitment of additional staff during 1961 which will be employed for a full year in 1962.

385. Education grants	\$48 000
1961	47 000
1960	38 493

386. The estimate provides for financial assistance in the education of children up to a maximum of \$400 per child and also includes provision for one return trip per school year to Vienna for each child being educated away from Vienna. A small increase in 1962 is required to cover costs in connection with additional staff to be recruited in that year.

387. Non-residents' allowance	\$137 000
1961	138 000
1960	122 666

388. The estimate for 1962 takes into account the assumption that approximately forty per cent of the General Service staff will be internationally recruited and entitled to a non-residents' allowance of \$1 000 per year. Before 1 July 1960 the allowance paid to

non-resident staff members was \$1 200 per annum on which the estimate for the 1961 budget was based and therefore some savings in this item are expected to arise. However, staff members who were entitled to this allowance prior to 1 July 1960 continue to receive the allowance at the former rate. In the case of promotion to a higher grade the allowance is adjusted to the new rate of \$1 000 per annum. This explains the slight reduction in the estimate for 1962.

389. Travel on recruitment and termination	\$71 000
1961	77 000
1960	72 711

390. The estimate is based on the assumption in sub-paragraph 375(c) for the estimated turnover of staff, and the recruitment of 22 additional staff members in 1962. The average cost of travel on recruitment and termination was \$800 for Professional and \$100 for internationally recruited General Service staff.

391. Assignment allowance	\$169 000
1961	158 000
1960	166 175

392. The estimate for 1961 was based on the assumption that by the end of that year 25% of the scientific Professional staff and 50% of the non-scientific Professional staff would be serving under permanent appointments and would, therefore, not be entitled to an assignment allowance.

393. It has become apparent that this ratio will probably not be reached in 1961 and, therefore, the anticipated cost reduction will be less than estimated. The estimate for assignment allowance in 1962 is again based on the above assumption since it is expected that the planned ratio of permanent to fixed-term appointments will be reached in that year.

394. Installation expenses	\$33 000
1961	46 000
1960	36 056

395. The estimate provides for installation expenses for staff to be recruited and replaced in 1962 at an average of approximately \$670 per person for Professional and \$80 for General Service staff.

396. Removal of household effects and excess baggage	\$27 000
1961	45 000
1960	33 940

397. The estimate covers shipment of household effects for staff members holding permanent appointments and excess baggage allowance for staff members recruited under fixed-term appointments.

398. It is expected that a provision of \$27 000 will be sufficient to cover requirements in 1962 and that the provision for 1961 will be in excess of the actual requirements for these allowances because of the slower than anticipated rate of conversion from fixed-term to permanent appointments.

399. Travel on home leave	\$89 000
1961	59 000
1960	78 550

400. Since the majority of the Agency's staff was recruited in 1958, expenses for travel on home leave are higher in the even and lower in the odd numbered years. The estimates for 1962 are based on experience in 1960 and take into account the additional staff recruited in that year and entitled to home leave in 1962.

(b) Assumptions

409. It is assumed:

- (a) That staff members will visit Member States in connection with the development of the Agency's technical assistance projects; the safeguards program, and to render scientific and other advisory services;
- (b) That travel will be undertaken to represent the Agency at scientific conferences and other meetings;
- (c) That travel will be required to maintain liaison with the United Nations and the specialized agencies and other international organizations whose activities are related to those of the Agency;
- (d) That nuclear research and training institutions will have to be visited in connection with the Agency's programs of exchange and training and collection of scientific information on the peaceful uses of nuclear energy; and
- (e) That staff members will have to negotiate specific agreements on Agency projects and research contracts and discuss supply of equipment and materials and other matters.

(c) Explanation of estimates

410. Transportation and per diem	\$180 000
1961	136 500
1960	137 259

411. It was possible to keep expenditures in 1960 below the appropriated amount for that year as a result of the strict control of duty travel by the Agency's Travel Co-ordination Committee, the Director General's personal review of all proposed travel and a decision taken by the Director General in July 1960 to limit air travel within Europe to tourist class.

412. In the early months of 1961 it already appears that, despite the application of such strict controls and the reduction in cost resulting from the aforementioned decision by the Director General, the amount appropriated for official travel in that year will not be sufficient for the travel necessary to carry out the 1961 program. An additional factor to be considered in this connection is the continuing rise in the transportation [17] and per diem costs which involve an automatic increase over the previous year's expenditure for the same amount of travel. In addition, nearly 4% of the 1961 appropriation will be needed to cover travel costs of a preliminary assistance mission to non-member states in Africa.

413. It is now clear that considerably more travel will have to be undertaken in 1962 in rendering advisory services to Member States and in connection with the safeguards program than in previous years.

414. It is also anticipated that in 1962 more visits will have to be made to Member States, especially in the less-developed areas, in connection with the expansion of technical and research assistance, and the fellowships and training programs of the Agency.

415. An additional need for travel will arise out of the increasing number of conferences which will have to be attended by representatives of the Agency to keep abreast of the latest developments in the peaceful uses of nuclear energy.

[17] Between February 1960 and 1961, first-class air fares for overseas travel have increased approximately 5%.

11. Representation and hospitality

Table 41

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Representation and Hospitality	29 679	32 500	32 500

(a) General

416. In the 1962 budget, what was formerly the appropriation for hospitality has become a combined appropriation for both representation and hospitality expenses. In previous years, funds for the former purpose were included in the appropriation for salaries and wages. The Board believes that by combining both representation and hospitality expenses into a single appropriation the funds for these purposes can thus be used in a more flexible and effective manner. The allocation of specific sums to certain officials as representation and hospitality allowances will be determined by the Board, or, if it chooses to delegate part or all of this authority, by the Director General.

417. To facilitate comparison, the 1960 and 1961 columns have been adjusted to reflect the situation as it would have been had representation and hospitality expenses been budgeted in the same manner in those years. A compensating adjustment has been made in the appropriation for salaries and wages.

(b) Assumptions

418. It is assumed:

- (a) That the Director General and certain senior staff members of the Agency require a representation and hospitality allowance in connection with their assigned responsibilities; and
- (b) That hospitality expenses will be incurred in connection with special missions, panels and committees, seminars, symposia and conferences, and visits to Headquarters by distinguished persons and by staff members to national and other laboratories and research centers, and to governmental, non-governmental, international and regional organizations.

(c) Explanation of estimates

419. Representation and hospitality \$32 500
 1961 32 500
 1960 29 679

420. Considering the increased flexibility which a combined appropriation for representation and hospitality expenses will provide, it is believed that it should be possible in 1962 to meet expenses under this heading without increasing the total appropriation.

428. The rise in expenditure on telephone calls and rental of instruments has been less marked, the monthly average now being below that which it was estimated would be reached in 1961. Even with additional instruments in the headquarters building, it is now not expected that total costs in this respect in 1962 will exceed the provision for 1961, namely \$24 500.

429. With respect to telex and cable traffic, the pattern of 1960 suggests that, while the use of the United Nations telex service will by 1962 not have increased beyond the level previously estimated for 1961, the traffic over commercial services has increased and will, by 1962, slightly exceed the estimates for 1961. In total, however, the provision of \$12 000 for 1961 can be reduced by 10%, and the provision for 1962 is therefore \$11 000.

430. For general freight and cartage and for local transportation an amount of \$2 500 is provided.

431. Rental and alteration of premises	\$ 9 000
1961	43 000
1960	23 197

432. The only premises now rented by the Agency are offices in the United Nations building in New York at an annual cost of \$3 000. Temporary storage space outside the headquarters building in Vienna has had to be rented from time to time, but for 1962 only a contingency provision of \$1 000 is included for this purpose because it is expected that by then the Headquarters will have sufficient space for storage of stocks of paper and documents.

433. In addition, an amount of \$5 000 is estimated to be required for alterations to the headquarters building, in particular to those parts now occupied by commercial firms.

434. Utilities	\$67 000
1961	51 000
1960	44 329

435. The estimated cost of heating the headquarters building in 1962 is \$36 000. This takes into account the provision of additional boilers and the known average consumption per boiler under maximum requirements, but since no actual experience of heating the whole building will be available until after the winter of 1961-62, it may have to be revised in future years. An amount of \$1 000 has been added for estimated heating costs in 1962 of that part of the Neue Hofburg which may still be occupied by the Agency's Documents Services, the installation of which at Headquarters may be delayed.

436. The estimate for light and power costs in 1962 is \$27 000. This figure covers estimated requirements of \$24 000 at Headquarters and \$3 000 at the Neue Hofburg for the Documents Services which require, apart from permanent lighting, continuous current for the operation of printing and reproduction machines.

437. For municipal water services, for garbage collection and sewer cleaning services an amount of \$3 000 is provided in 1962.

438. Rental, operation and maintenance of furniture and equipment	\$16 000
1961	15 000
1960	17 475

439. The estimates are based on experience during 1960 and cover such services as are not obtained on a contractual basis and are required for isolated pieces of specialized equipment or where servicing requirements are too infrequent or irregular to warrant the establishment of a service on a contractual basis.

of 1961, and reduced requirements for film as a result of using new equipment (see paragraph 469), the cost estimate for supplies of paper, offset plates, reproduction film, mimeograph and offset ink and miscellaneous presentation and lay-out supplies can be reduced by \$8 500 to \$22 500 for 1962.

458. Miscellaneous supplies	\$27 500
1961	20 000
1960	26 040

459. It is anticipated that the pattern of expenditure for miscellaneous supplies of all kinds will be essentially the same in 1962 as it was for 1960. The estimate for 1961 may prove slightly too low to cover actual requirements but it is expected that the deficit can be covered by savings on other items in this section.

460. The estimate for 1962 includes:

Building and other maintenance supplies	\$17 500
Public information supplies, non-technical periodicals and newspapers	2 500
Supplies for the operation and maintenance of transportation equipment	1 500
Working clothes and uniforms	1 500
Telecommunication and recording supplies	3 000
Miscellaneous supplies	1 500
	<hr/>
	\$27 500
	<hr/>

461. Furniture and fixtures	\$22 500
1961	56 000
1960	31 560

462. The estimate for 1962 makes provision for additional furniture for new staff members at costs varying from \$250 to \$600 each, and for such miscellaneous items as rugs, lamps and special furniture. The total estimate for these purposes is \$15 000.

463. Additional filing cabinets and shelves for the storage of supplies, equipment and publications are estimated to cost \$5 500.

464. A provision of \$2 000 is included in the estimates for the installation of special lighting at Headquarters, where the lighting is much below accepted standards for office work. Small improvements in this respect were introduced in 1960 and should be continued through 1961 and 1962.

465. Office equipment and machines	\$20 000
1961	61 000
1960	39 570

466. There is need for smaller items of reproduction equipment, especially those which supplement existing equipment, such as cutters, collators, type fonts for varitypers, drawing boards, etc., and a provision of \$3 000 is made for such items in 1962.

467. Completion of the telephone installations at Headquarters and provision of instruments for additional staff, is estimated to require \$3 000.

468. For miscellaneous maintenance and cleaning equipment a provision of \$2 500 has been made.

469. It is proposed to provide the documents services with a new process in 1962 which will not only increase the scope and volume of reproduction work, but also permits the

G. OPERATIONAL BUDGET ESTIMATES

I. THE GENERAL FUND

Summary

Table 45

Item	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
RECEIPTS			
Voluntary contributions	996 103	1 800 000	2 000 000
Special voluntary contributions	-	pro memoria	pro memoria
Utilization of reserve	100 000	pro memoria	pro memoria
Sub-total	1 096 103	1 800 000	2 000 000
Reserve carried forward from previous years	326 871	326 898	326 898
TOTAL	1 422 974	2 126 898	2 326 898
EXPENDITURES			
Transfers to Operating Fund I	75 000	349 000	257 000
Transfers to Operating Fund II	1 021 076	1 451 000	1 743 000
TOTAL	1 096 076	1 800 000	2 000 000

477. The General Fund is the depository of funds received by the Agency in the form of voluntary contributions from Member States or from other authorized sources in accordance with Article XIV. F of the Statute. It is used to provide, by transfers to the appropriate Operating Fund, monies for the operational activities of the Agency.

478. A portion of the General Fund is not transferable to the Operating Funds; but is considered as a reserve, to be carried forward from year to year and to be used as working capital temporarily to finance Agency programs under either of the Operating Funds during the early months of a fiscal year before the voluntary contributions pledged by Member States have been paid.

479. In Table 45 above the transfer in 1960 of \$100 000 from the reserve is reflected which the General Conference authorized the Board to make in order to cover shortfalls in voluntary contributions in that year. [19] No such authority exists in 1961 and none is sought for 1962, so that the reserve remains unchanged except for a small unallocated amount which was added to it at the end of 1960.

480. On the basis of the financial situation of the General Fund, and subject to the approval of the Board, the Director General transfers money to the Operating Funds as required, to cover the approved annual operational programs. The allocations to the two Operating Funds, as shown in the foregoing table are, therefore, provisional.

[19] GC(III)/RES/51, part B, paragraphs 3 and 4(a).

II. OPERATING FUND I

Receipts and expenditures

Table 46

Item	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
RECEIPTS			
Transfer from the General Fund	75 000	349 000	257 000
Income from reimbursable services	-	pro memoria	5 000
Income from investments	-	pro memoria	pro memoria
TOTAL	75 000	349 000	262 000
EXPENDITURES			
Operation of laboratory facilities	45 000	349 000	262 000
Unobligated earmarkings	30 000	-	-
TOTAL	75 000	349 000	262 000

481. The above table reflects the transactions within Operating Fund I to finance the work of the Agency's laboratory facilities, which is described in the section which follows.

482. As soon as sufficient experience has been obtained in the operation of these facilities, the Board will endeavor to develop a scale of charges for its services to Member States, and it may then be possible to derive some income which would be credited to Operating Fund I. At this stage, it is possible to estimate only a token amount of income likely to be derived therefrom. Should more income be earned, there would be an equivalent reduction in transfers from the General Fund, unless the work resulted in additional operating expenses not provided for previously.

483. In 1961 the Agency's Laboratory will undertake the analysis of samples in connection with the FAO - United Nations' Special Fund studies of ground water flow in karstic limestone in Greece. An amount of \$4 000 is provided by the Special Fund to reimburse the Agency for such services. This constitutes income to Operating Fund I and will correspondingly reduce the requirements for transfer from the General Fund in that year.

1. Laboratory facilities

Table 47

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Salaries and wages	24 324	140 000	171 500
Common staff costs	11 663	50 000	78 000
Consultants	900	-	5 000
Duty travel of staff	-	3 000	6 000
Scientific and technical supplies	10 463	62 000	31 500
Permanent equipment	60 821	175 000	59 500
Non-technical supplies	614	5 000	5 000
Common services	634	30 000	40 000
Total	109 419	465 000	396 500
Deduct: Charge to Regular Budget	64 419	116 000	134 500
Net total	45 000	349 000	262 000

484. In order to establish the budget for the laboratory facilities on lines similar to those of the Regular Budget, the section which follows sets out the proposed staffing, the functions and responsibilities, and the program of work of the laboratory facilities in 1962. Explanatory statements on staff and an explanation of the estimates, based on certain assumptions, are also provided.

485. Since experience in operating the Laboratory at Seibersdorf will only be acquired during 1962, which will be the first full working year, some of the estimated costs - both for 1961 and 1962 - may have to be revised at a later stage.

Staffing of laboratory facilities

Table 48

Grade	1960 Staff	1961 Staff	Proposed Change	Proposed 1962 Staff
P-5	2	2	1	3
P-4	3	3	1	4
P-3	5	5	1	6
P-2	4	4	-	4
Sub-total	14	14	3	17
GS	24	28	-	28
M & O	3	13	-	13
Total	41	55	3	58

(a) Functions and responsibilities

486. The functions and responsibilities of the laboratory facilities are:

- (a) Standardization of isotopes and preparation of radioactive standards;
- (b) Calibration and adaptation of measuring equipment;
- (c) Quality control of special materials for nuclear technology;
- (d) Measurements and analyses in connection with technical supplies, the Agency's safeguards, and health and safety measures; and
- (e) Services to Member States which can be undertaken with the facilities needed for the above-mentioned activities.

(b) Program of work for 1962

487. It is considered useful to summarize here the work which it is expected that the Laboratory will undertake in 1962.

- (i) Standardization of isotopes, preparation of radioactive standards and calibration and adaptation of measuring equipment

488. The standardization section will continue to develop methods on absolute measurements of the activity of radionuclides used in medicine, science and industry and of the output from neutron sources. At the request of Member States it will distribute such reference sources and will take part in or organize international or inter-laboratory comparisons in order to try to achieve international standardization of measurement methods with the best possible precision. The Laboratory will undertake, at the request of Member States that have just started the development of nuclear programs, the calibration and adaptation of measuring equipment for their laboratories. In addition, in-service training of scientists from Member States may be carried out and courses may be organized in radioactive metrology.

- (ii) Quality control of special materials for nuclear technology

489. The Laboratory will be equipped to carry out general chemical analysis, trace element analysis - in the first instance by radio-activation - mass spectrometrical analysis and analysis by optical spectroscopy in order to perform the necessary quality control services and to act as a referee laboratory in connection with Agency activities for the provision of nuclear materials, including ores.

- (iii) Measurements and analysis in connection with technical supplies, the Agency's safeguards and health and safety measures

490. The measurement of samples from the environment for radioactive contamination will be increased in number, so as to satisfy the requests by Member States and international organizations. In-service training of scientists from Member States in this subject will be continued and it is planned to organize a training course on radionuclide surveys in food hygiene control. The Laboratory will also be able to assist in pre-operational surveys at reactor sites.

491. Work in connection with the world-wide survey of tritium in natural water, and its hydrological implications will be expanded in 1962.

- (iv) Electronics and mechanical workshop

492. The electronic workshop will be responsible mainly for the adaptation, maintenance and repair of all the electronic equipment which is used in the various sections of the Laboratory and will also be concerned with the development and construction of electronic devices for specialized purposes which cannot normally be obtained from commercial suppliers.

493. The mechanical workshop will be concerned with the maintenance and repair of the scientific equipment used in the Laboratory with the exception of electronic devices, and with the design and construction of the mechanical parts of new apparatus to be developed in the Laboratory for its program. The mechanical workshop will be provided with a small glass-blowing unit for the needs of the whole Laboratory.

(c) Explanatory statement on staff

494. If the Laboratory is to be fully operational in 1962, it will be essential that in addition to staff already provided, senior officers should be appointed as soon as possible for some of its main activities, such as chemistry, physics, and quality control services. Two additional posts, a P-5 and a P-4, are therefore required.

495. A physical hydrologist at the P-3 level will also have to be added to the staff to deal with the labeling of sand for hydrological research, and for experimental studies of water movement, and the concentration of hydrogen and oxygen isotopes in water.

(d) Assumptions

496. It is assumed:

- (a) That the Laboratory will be in full operation in 1962;
- (b) That all approved posts for 1961 will be filled by the beginning of 1962 and that in respect of new posts for 1962 a fifty per cent recruitment lag will occur; and
- (c) That approximately forty per cent of the work performed by the Laboratory will be concerned with activities falling under the Regular Budget.

(e) Explanation of estimates

497. Salaries and wages		\$171 500
	1961	140 000
	1960	24 324

498. The estimate takes into account the assumption in sub-paragraph 496(b) above. It provides for full staffing in respect of all posts approved for 1961 and for a maximum recruitment lag of fifty per cent in respect of new posts provided for 1962.

499. Common staff costs		\$78 000
	1961	50 000
	1960	11 663

500. The estimate for 1962 is based on the assumption that the relation between salaries and wages and common staff costs will be the same as under the Regular Budget. It includes provision for travel on recruitment and installation costs in respect of additional personnel provided for in that year but takes account of the lag in recruitment assumed in sub-paragraph 496(b) above.

501. Consultants		\$5 000
	1961	-
	1960	900

502. The estimate for 1962 is based on the assumption that four consultants will be required, each for a period not exceeding 15 days, to give advice and assistance on specific projects. An average travel cost of \$600 has been provided for, and fees and subsistence allowance are included as \$35 and \$15 per day respectively.

503. Duty travel of staff	\$6 000
1961	3 000
1960	-

504. The provision of \$6 000 covers an estimated number of 15 visits by staff members to laboratories in Europe and overseas. Exact requirements in this regard can only be established in the light of experience.

505. Scientific and technical supplies	\$31 500
1961	62 000
1960	10 463

506. It is estimated that the greater part of the initial inventory requirements will be covered in 1961, but that in a full year of operation \$31 500 will be required to replace the supplies consumed.

507. Permanent equipment	\$ 59 500
1961	175 000
1960	60 821

508. In order to carry out the program of work planned for 1962, several pieces of apparatus will be required, such as equipment for measuring radioisotopes in gaseous form, for measuring electron capture nuclei (a β -spectrometer) and α -particle emitting isotopes. Some allowance must also be made for the purchase of small pieces of equipment which cannot at this time be specified. In addition, much of the electronic equipment in the standardization laboratory will have been in use for three to four years. It is consequently foreseen that some of this equipment will be replaced in 1962, when maintenance becomes expensive.

509. Non-technical supplies	\$5 000
1961	5 000
1960	614

510. The estimate for 1962 covers the expected requirements of the Laboratory in respect of standard office and stationery supplies during its first full working year. It may have to be revised later in the light of experience.

511. Common services	\$40 000
1961	30 000
1960	634

512. The estimate for common services, including utilities, maintenance, transport, printing and other services, which also takes into account that 1962 will be the first full year of operation, represents a straight projection of the estimate for 1961 which covered nine months of operation. The estimate may have to be revised in the light of experience.

III. OPERATING FUND II

Receipts and expenditures

Table 49

Item	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
RECEIPTS			
Savings from prior years' operations	76 484	-	-
Transfers from the General Fund	1 021 076	1 451 000	1 743 000
Income from reimbursable services	-	pro memoria	pro memoria
Income from investments	53 935	16 000	50 000
TOTAL	1 151 495	1 467 000	1 793 000
EXPENDITURES			
Fellowships and training	632 316	800 000	827 000
Technical assistance	383 439	510 000	758 000
Research contracts program	67 184	90 000	168 000
Mobile radioisotope laboratories	28 948	51 000	40 000
Unobligated earmarkings	39 608	-	-
TOTAL	1 151 495	1 451 000	1 793 000

513. Transfers from the General Fund to Operating Fund II are authorized by the Board, as required, for the execution of the fellowships and training program, the Agency's programs of technical assistance and research contracts under the Operational Budget, and for the operation of the Agency's two mobile radioisotope laboratories. The figures in Table 49 above illustrate that against an original appropriation of \$1 457 000 approved to implement the program for 1960 [20] under Operating Fund II, only \$1 021 076 could in fact be transferred, which, with the addition of some \$76 000 in savings on prior years' operations, and of \$54 000 in the shape of income from investments, permitted the execution of a program of only \$1 151 000 or over \$300 000 short of that which the General Conference had originally approved.

514. It is not possible to make any estimate at this time of direct revenue to Operating Fund II from services rendered to Member States.

515. For 1962 it is estimated that the income from investments which will accrue to Operating Fund II will be \$50 000. With the increasing momentum of field activities during 1961 and 1962, the cash requirements for the execution of the program are likely to be higher than in 1960, leaving less free funds for short-term investment. In addition it is thought prudent not to expect as large an income from this source in 1962 as there was in 1960. In 1961, however, the amount will be higher than that shown in the budget for that year.

516. Detailed estimates for the various parts of the program which are financed from Operating Fund II are presented in the sections that follow.

[20] GC(III)/75, Table 48.

2. Fellowships and training program

Table 50

Item of expenditure	1960	1961	1962
	Actual	Budget	Estimate
	\$	\$	\$
Type I fellowships	500 542	560 000	545 000
Type II fellowships	15 097	20 000	20 000
Research fellowships and special grants	13 364	70 000	40 000
Exchange of scientists	95 578	90 000	148 000
Training courses	7 735	60 000	74 000
Total	632 316	800 000	827 000

(a) General

517. Under the Agency's fellowships and training program provision is made not only for fellowships and training courses but also for research fellowships that enable scientists to perform research in laboratories abroad, special grants for post-doctorate studies, and the services of visiting professors, who conduct training courses on the spot in Member States.

518. The estimate for the fellowships and training program is not expected to be sufficient to meet the growing number of requests for assistance under this program in 1962. It merely represents the maximum which should be budgeted within the target for voluntary contributions which the Board has recommended that the General Conference should set for that year.

519. A comparison of the total availability of funds under EPTA and from the Agency's own resources, in the years 1960, 1961 and 1962, for Type I fellowships is given in the table below. It is to be noted that on the basis of these estimates total availability in 1962 will be considerably more than in the previous year.

Table 51

Type I fellowships	1960	1961	1962
	Actual	Budget	Estimate
	\$	\$	\$
Operating Fund II	500 542	560 000	545 000
EPTA	305 899	167 500	273 400
Total	806 441	727 500	818 400

(b) Assumptions

520. It is assumed:

- (a) That 700 nominations will be received in 1962 and ninety per cent of the candidates will prove to be eligible for the award of fellowships;
- (b) That fellowships will be awarded to approximately sixty-six per cent of the eligible candidates;

- (c) That on the basis of previous experience, the average cost of a Type I fellowship will be \$3 000;
- (d) That Member States who have offered Type II fellowships before will offer the same number for 1962;
- (e) That the Agency will, when necessary, continue to bear travel costs in connection with Type II fellowships;
- (f) That it will be necessary substantially to increase the services provided by visiting professors; and
- (g) That owing to shortage of funds, provision for research and special grants will have to be reduced from the estimated 1961 level and the provision for training courses will have to remain at approximately the same level as in that year.

(c) Explanation of estimates

521. Fellowships program (Types I and II)	\$565 000
1961	580 000
1960	515 639

522. During 1960 the Agency received 648 nominations and selected candidates for the award of 428 fellowships - 189 Type I, 155 Type II and 84 financed under EPTA. For the 1960 fellowships program, the Agency's share of EPTA funds was initially \$210 000. Before the end of the year, however, a further \$95 000 were allocated from savings making it possible to award additional fellowships.

523. When selecting candidates, consideration is first given to the needs of each country then to the qualifications, academic background, professional experience, etc., of the candidates nominated. Of the total number of nominations received in 1960, 91% were found eligible for the award of fellowships. However, because of inadequate funds only 66% of the eligible candidates were granted awards in that year, a slight improvement over 1959 when it was possible to grant awards to only 60% of the eligible candidates.

524. The estimate of \$565 000 for 1962 is derived from the stated assumptions and will provide for 180 Type I awards at an approximate cost of \$3 000 each. On the basis of experience in previous years it will also provide for \$20 000 to cover expenses in connection with the award of 200 Type II fellowships. It is expected that a further 70 awards will be financed from EPTA funds.

525. Research fellowships and special grants	\$40 000
1961	70 000
1960	13 364

526. It is expected that in 1961 it will be possible to award about 15 research fellowships and special grants. Owing to the shortage of funds for fellowships and training it is necessary to establish certain priorities as between the several forms of assistance to Member States. The demand for visiting professors has become so great that it is desirable to allocate a greater part of the available resources for this purpose and, accordingly, to reduce the estimate for research fellowships and special grants in 1962.

527. Exchange of scientists	\$148 000
1961	90 000
1960	95 578

528. In 1960 the Agency obtained the services of 16 visiting professors at a cost of approximately \$6 000 in each case. Twenty-three requests have already been received for 1961 and a few more, for short visits, are expected. In addition, it has been necessary to carry over into 1961 several requests which could not be satisfied in 1960. It is

estimated that at least \$160 000 could be utilized in 1961 towards meeting these requests, but because of financial considerations, only forty per cent of the requests can be fulfilled.

529. It is not expected that the level of requests will decline in 1962; in fact it is believed that there will be an increase because of requests from the newly-independent countries in Africa and from other States which may become members of the Agency. It is therefore estimated that at least \$300 000 will be needed to meet the cost of visiting professors in 1962. However, it is expected that approximately fifty per cent of this cost will be financed under EPTA.

530. Training courses	\$74 000
1961	68 000
1960	7 735

531. As in the case of other operational activities, the program for international and regional training courses has suffered because of the inadequacy of financial resources. This has resulted in an accumulation of requests which, judged by all other considerations, would have been included in the programs of previous years.

532. A number of requests for courses to be held in 1962 have already been received and additional requests are expected. Courses which would, in the opinion of the Board, be of particular value to many of the Agency's Member States and which are currently planned for 1962 are:

- (a) A regional training course on the applications of radioisotopes in medicine, requested by the Government of Greece and to be held in Athens;
- (b) A regional training course on the applications of radioisotopes in agriculture, requested by the Government of Turkey and to be held in Ankara;
- (c) A regional training course in nuclear metallurgy, requested by the Government of Argentina, co-sponsored by IANEC and to be held in Buenos Aires;
- (d) An international training course on radiation techniques in animal science, co-sponsored by FAO and to be held at Cornell University, United States of America;
- (e) An international training course on radionuclide surveys in food hygiene control, co-sponsored by FAO and tentatively to be held in Austria;
- (f) An international training course on special topics in nuclear physics, requested by the Government of the Czechoslovak Socialist Republic and to be held in Czechoslovakia; and
- (g) A regional training course on instrumentation in health physics, suggested by the Secretariat. It has not yet been decided where this course will be held.

533. The courses referred to in sub-paragraphs (a) and (b) above will be financed under EPTA and funds have already been allocated for this purpose. It is hoped that, with the assistance provided through co-sponsorship by other organizations, it will be possible to accommodate the remaining courses within the funds budgeted for 1962.

3. Technical assistance program

Table 52

Item of expenditure	1960	1961	1962
	Actual	Budget	Estimate
	\$	\$	\$
Technical assistance	383 439 ^{a/}	510 000	758 000

a/ Exclusive of a special contribution of equipment up to the value of \$200 000 by the Government of the United States of America.

(a) General

534. The estimate covers the cost of providing the services of technical assistance experts and scientific and technical equipment and supplies within the framework of technical assistance projects.

535. A comparison of the total availability of funds under EPTA and from the Agency's own resources, in the years 1960, 1961 and 1962, for technical assistance (experts and equipment) is given in the table below. It is to be noted that on the basis of these estimates total availability in 1962 will be little more than in the previous year.

Table 53

Technical assistance	1960	1961	1962
	Actual	Budget	Estimate
	\$	\$	\$
Operating Fund II	583 439 ^{a/}	510 000	758 000
EPTA	286 472	585 680	346 770
Total	869 911	1 095 680	1 104 770

a/ Includes the United States special contribution of equipment up to the value of \$200 000.

536. Under the Operational Programs for 1960 and 1961, the Board approved technical assistance projects requiring respectively 204 and 222 man-months for their execution. Many of the projects which were started in 1961 will continue in 1962. Some of the requests received during 1960 for consideration under the 1961 Operational Program required further clarifications by the Governments concerned. These requests will be considered for implementation in 1962.

537. It is expected that many additional requests for assistance in 1962 will be received in response to the annual invitation for the submission of requests for projects, and as a result of the recommendations of the preliminary assistance and follow-up missions dispatched in 1960 and 1961. It is estimated that a need will arise in 1962 for approximately 620 man-months of technical assistance as against a provision for 583 in 1961. However, as the 1962 EPTA program provides for 180 man-months, only the remaining 440 man-months need be provided for under the Agency's Operational Program. At the standard average of \$1 450 per man-month, 440 man-months of technical assistance would involve expenditures of approximately \$638 000.

538. The 1961 program required an estimated 600 man-months for implementation. However, out of the funds available from all sources, including EPTA, provision can only be made for 583 man-months. Considering the many unsatisfied demands of Member States

and the needs of the newly-independent States in Africa - to which reference has been made time and again by the United Nations - a program of 620 man-months in 1962 is considered the minimum requirement for that year.

539. Taking into account the provision under Operating Fund II, the resources made available under EPTA, and the equipment grant by the Government of the United States of America, equipment requests totaling \$377 000 and \$245 000 were approved for implementation in 1960 and 1961 respectively.

540. During 1960 requests for equipment of the value of approximately \$655 000 were received which were considered technically sound. However, only \$245 000 could be provided for this purpose in the 1961 budget. Some of the items will have to be considered for procurement in 1962. Provision is, accordingly, made for the supply of these items and for additional requests which will be received during 1961.

541. In the light of the experience gained so far, it is estimated that even after most careful scrutiny, a minimum of \$300 000 will be needed in 1962 to meet the cost of essential equipment. Of this \$84 300 is provided under the EPTA program for that year, leaving a balance of \$215 700 to be met out of the Agency's own resources.

(b) Assumptions

542. It is assumed:

- (a) That in developing cost estimates for technical assistance the Agency will be guided not only by its own limited experience, but by the experiences of TAB and the specialized agencies, to the extent possible; and
- (b) That Agency funds will be utilized for the purchase of equipment for technical assistance projects.

(c) Explanation of estimates

543. Technical assistance		\$758 000
	1961	510 000
	1960	383 439 ^{a/}

^{a/} Exclusive of the equipment grant by the United States of America up to the value of \$200 000.

544. The estimates under the above heading are combined estimates of the cost of field experts and equipment. So far as 1962 is concerned, the position is as follows:

Cost of approximately 374 man-months of technical assistance on the basis of \$17 400 (average) for one year	\$542 300
Estimated cost of the equipment and supplies component of technical assistance projects	215 700
Total	\$758 000

545. It will be seen from the foregoing that the Agency will be able to provide from all sources a total of 554 man-months of technical assistance (374 man-months under Operating Fund II and 180 man-months under EPTA) whereas, as mentioned earlier, it is estimated that a total of 620 man-months will be required to meet the minimum needs of Member States.

4. Research contracts program

Table 54

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Research contracts	67 184	90 000	168 000

(a) General

546. After scientists from the less-developed Member States have been trained abroad and have, on returning to their own country, received further instruction by experts, their progress in developing their own research activities is often hampered by lack of funds, equipment and supplies. Small research contracts financed from the Operational Budget are therefore an essential supplement to the technical assistance which the Agency provides through fellowships and field experts.

547. The discussions during the symposia held in Trombay and Bangkok in December 1960, respectively on radioisotopes and radiation in entomology, and on the use of radioisotopes in the study of endemic and tropical diseases, convincingly demonstrated that results of immediate benefit to the countries concerned can be achieved if the necessary research funds and tools are provided in addition to and following adequate training through expert advice.

548. During the fourth session of the General Conference many delegations expressed the view that the Agency should, in future years, give increased emphasis to the practical applications of nuclear energy, and that more attention should be paid to the needs of those less-developed Member States who can benefit from assistance in this field of work. It will not, however, be possible to implement this recommendation in any significant degree during 1961 owing to insufficiency of funds. Because voluntary contributions to the General Fund are far below the target set for the purpose, much less than the \$90 000 budgeted [21] will be available in that year for this type of research contract. The resources which are expected to be available will permit of little more than the renewal of contracts awarded in 1959 and 1960.

549. In order to enable this part of the research contract program to regain its lost momentum the Board proposes to provide \$168 000 for assistance to the Agency's less-developed Member States in 1962. This assistance will continue to be used mainly to support research in radioisotope applications to such problems as the mode of action of new fertilizers and the study of tropical diseases.

(b) Assumption

550. It is assumed that nearly all research contracts awarded through 1961 and financed from the Operational Budget will be renewed in 1962.

(c) Explanation of estimates

551. On the basis of the above assumption, approximately \$60 000 will be required for the renewal of existing contracts, leaving an availability of \$108 000. Assuming an average cost of approximately \$8 000 per contract it will be possible to award approximately 13 new contracts in 1962.

[21] GC(IV)/116, Table 53.

5. Mobile radioisotope laboratories

Table 55

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Salaries and wages	8 245	16 700	12 000
Common staff costs	816	4 800	2 000
Travel and per diem	12 086	17 500	15 000
Scientific supplies and equipment	2 845	1 000	3 000
Maintenance supplies, repairs and services	797	3 000	2 000
Insurance	1 262	2 000	1 500
Shipping and freight	2 897	6 000	4 500
Total	28 948	51 000	40 000

(a) General

552. Both of the Agency's mobile radioisotope laboratories have been in full operation during 1960. The first unit was in Korea where courses in four different towns were attended by 142 trainees. In September, it moved to China for a stay of approximately five months for courses in three different places. In 1961 this unit is being used in the Philippines for approximately three months and in Indonesia for five months. It is expected that in 1962, the unit will remain for some time in South East Asia and later in the year move to the Middle East.

553. The second unit which has already provided courses in eight different places in Mexico to 145 trainees and at three different places in Argentina to 35 participants, is expected to remain in Latin America until 1962, but may be moved to Africa at the end of that year.

(b) Assumptions

554. It is assumed:

- (a) That part of the transportation costs to the region in which the laboratories will operate, will be borne by the Agency, but that shipping costs from country to country within the region and the cost of fuel, lubricants, etc., within the host countries will be borne by the recipient Governments;
- (b) That recipient countries will bear fifty per cent of the subsistence allowances of the staff;
- (c) That the staff will consist of one scientist, two General Service laboratory technicians and two Maintenance and Operatives Service personnel; and
- (d) That, except for periods spent in transit, the laboratories will be in continuous operation in 1962.

(c) Explanation of estimates

555. The estimates for 1962 take into account the experience of 1960, when, for the first time, both laboratories were in operation for a full year.

556. Whereas in previous years scientist-instructors for the two units were provided free of charge for the first months of operation by the Government that donated the laboratories,

it is expected that in 1962 it may be necessary for the Agency to provide short-term instructors for a total of approximately five months. This provision is covered in the estimates for salaries and wages, common staff costs and duty travel of staff.

557. All other costs are based on actual during 1960, except that a slightly increased provision is made for maintenance, replacements and repairs in view of the increasing age of these vehicles.

IV. THE UNITED NATIONS EXPANDED PROGRAMME OF TECHNICAL ASSISTANCE

558. In addition to funds available for fellowships and technical assistance under Operating Fund II, the Agency's participation in EPTA provides additional funds for these purposes as shown in the following table:

Table 56

Item of expenditure	1960 Actual	1961 Budget	1962 Estimate
	\$	\$	\$
Fellowships	305 899	167 500	273 400
Experts and equipment	286 472	585 680	346 770
Regional projects	-	62 000	48 150
Total	592 371	815 180	668 320

559. The new procedure of EPTA, under which biennial programs are proposed and approved, applies for the first time to the years 1961-62. Funds for the 1961 portion of this program have already been allocated, but funds for 1962 will not be allocated until after the United Nations Pledging Conference in October 1961, although the program itself has been approved by TAC.

560. The new procedure brings to the EPTA program more flexibility than existed previously, in that funds remain available up to 24 months for the implementation of the program. In addition, there remains the possibility - which has always existed - of utilizing program savings on experts and equipment for the award of additional fellowships and vice versa. The amounts shown above are, therefore, not at this stage definite program determinations.

561. Table 56 does not reflect separately the amounts allocated by TAB for administrative and operational services costs. In accordance with decisions adopted by the General Conference, these allocations for 1960 and 1961 have been and are being utilized to provide additional assistance to Member States, the Agency absorbing in its Regular Budget the cost of administering the EPTA program. [22] For 1962 also, the estimated amount to be allocated to the Agency in respect of these costs has been incorporated in the program estimates shown in Table 56.

[22] GC(IV)/RES/72, part A, paragraph 1, and GC(IV)/RES/81.

ANNEXES

Approximate allocation of proposed expenditure

<u>Budget parts and sections</u>	<u>Total</u>	<u>General Conference and Board</u>
	\$	\$
<u>REGULAR BUDGET</u>		
I. 1. General Conference	245 000	245 000
2. Board of Governors	398 000	398 000
<u>Total part I</u>	<u>643 000</u>	<u>643 000</u>
II. 3. Panels and committees	160 000	
4. Special missions	70 000	
5. Seminars, symposia and conferences	180 000	
6. Distribution of information	260 000	
7. Scientific and technical services and laboratory charges	885 500	
<u>Total part II</u>	<u>1 555 500</u>	
III. 8. Salaries and wages	2 467 000	
9. Common staff costs	1 030 000	
10. Duty travel of staff	180 000	
11. Representation and hospitality	32 500	
<u>Total part III</u>	<u>3 709 500</u>	
IV. 12. Common services	224 000	
13. Non-technical supplies and equipment	129 000	
<u>Total part IV</u>	<u>353 000</u>	
<u>Total Regular Budget</u>	<u>6 261 000</u>	<u>643 000</u>
<u>OPERATIONAL BUDGET</u>		
1. Laboratory facilities	262 000	
2. Fellowships and training program	827 000	
3. Technical assistance program	758 000	
4. Research contracts program	168 000	
5. Mobile radioisotope laboratories	40 000	
<u>Total Operational Budget</u>	<u>2 055 000</u>	
<u>TOTAL AGENCY FUNDS</u>	<u>8 316 000</u>	<u>643 000</u>

a/ As indicated in paragraph 226, it is not possible to segregate, on a functional basis, salaries and wages, common staff costs, common services, etc., and to budget for such costs accordingly. However, by using average costs per employee, and by allocating proportionately on that basis such expenditures as those for equipment, common services, etc., it is possible to arrive at an approximation of the costs of each of the major functional areas of activity. The table provides this information.

X I

962 to the principal activities of the Agency^{a/}

<u>General administration</u>	<u>Preparation and distribution of information</u>	<u>Regulatory activities</u>	<u>Technical assistance and services to Member States</u>	<u>Supporting laboratory activities</u>
\$	\$	\$	\$	\$
10 000	112 500	37 500		
	163 000	3 000	67 000	
	260 000	17 000		
	112 000	589 000	50 000	134 500
<u>10 000</u>	<u>647 500</u>	<u>646 500</u>	<u>117 000</u>	<u>134 500</u>
655 000	772 000	460 000	580 000	
273 000	323 000	192 000	242 000	
22 000	24 500	48 500	85 000	
15 000	7 500	2 500	7 500	
<u>965 000</u>	<u>1 127 000</u>	<u>703 000</u>	<u>914 500</u>	
42 000	70 000	68 000	44 000	
24 000	40 500	39 000	25 500	
<u>66 000</u>	<u>110 500</u>	<u>107 000</u>	<u>69 500</u>	
<u>1 041 000</u>	<u>1 885 000</u>	<u>1 456 500</u>	<u>1 101 000</u>	<u>134 500</u>
				262 000
			827 000	
			758 000	
			168 000	
			40 000	
			<u>1 793 000</u>	<u>262 000</u>
<u>1 041 000</u>	<u>1 885 000</u>	<u>1 456 500</u>	<u>2 894 000^{b/}</u>	<u>396 500</u>

^{b/} The Agency's planning share under EPTA of \$668 320 for 1962 will bring the total amount available for technical assistance to \$3 562 320.

ANNEX II

Tentative manning table for 1962

A. THE REGULAR BUDGET

	DG	DDG	D	P-5	P-4	P-3	P-2	P-1	Sub- total	GS	M&O	Grand total
OFFICE OF THE DIRECTOR GENERAL	1		1			1			3	2		5
Office of Internal Audit				1		1		1	3	2		5
DEPARTMENT OF TRAINING AND TECHNICAL INFORMATION		1				1		1	3	2		5
Division of Exchange and Training of Scientists and Experts			1	2	7	1	1		12	18		30
Division of Scientific and Technical Information			1	4	6	7	3	6	27	37		64
DEPARTMENT OF TECHNICAL OPERATIONS		1				1		1	3	2		5
Division of Economic and Technical Assistance			1	3	6	4	2		16	12		28
Division of Reactors			1	5	3	1	1		11	6		17
Division of Technical Supplies			1	3	1	1			6	4		10
Division of Health, Safety and Waste Disposal			1	6	6	3			16	9		25
DEPARTMENT OF RESEARCH AND ISOTOPES		1				1		1	3	2		5
Division of Research and Laboratories			1	7	2	4			14	9		23
Division of Isotopes			1	8	6				15	10		25
DEPARTMENT OF SAFEGUARDS AND INSPECTION		1						1	2			2
Division of Safeguards			1	3	2	1			7	4		11
Division of Inspection			1	1	2				4	2		6
DEPARTMENT OF ADMINISTRATION, LIAISON AND SECRETARIAT		1		1			1		3	2		5
Secretariat of the General Conference and the Board of Governors			1	1	6	2	1		11	5		16
Division of External Liaison and Protocol and Office of the Representative of the Director General at United Nations Headquarters			2	3	1	2	2		10	12		22
Legal Division			1	2	1	2		1	7	6		13
Division of Public Information			1	3	2				6	7		13
Division of Budget and Finance			1	2	4	3	2	3	15	20		35
Division of Personnel			1	1	2	1		1	6	14		20
Administrative Office of Technical Assistance				1	1	1			3	3		6
Division of Conference and General Services			1	1	2	3	4	2	13	70	106	189
Division of Language Services				1	12	29		1	43	39		82
Total	1	5	18	57	73	72	17	19	262	299	106	667
Approved manning table for 1961	1	5	18	49	74	70	17	14	248	291	106	645
Difference	-	-	-	8	(1)	2	-	5	14	8	-	22

B. THE OPERATIONAL BUDGET

LABORATORY FACILITIES				3	4	6	4		17	28	13	58
Approved manning table for 1961				2	3	5	4		14	28	13	55
Difference				1	1	1	-		3	-	-	3
MOBILE RADIOISOTOPE LABORATORIES					1				1	2	2	5
Approved manning table for 1961					1				1	2	2	5
Difference					-				-	-	-	-

ANNEX III

Draft resolutions

I. BUDGETARY APPROPRIATIONS FOR 1962

A.

The General Conference,

Accepting the recommendation of the Board of Governors,

1. Appropriates for the administrative expenses of the Agency in 1962, including the administrative expenses arising out of its participation in the United Nations Expanded Programme of Technical Assistance, an amount of US \$6 261 000 as follows:

<u>Part</u>	<u>Section</u>	<u>Purpose</u>	<u>United States dollars</u>	
I.		General Conference and Board of Governors		
	1.	General Conference	245 000	
	2.	Board of Governors	398 000	643 000
II.		Functional program activities		
	3.	Panels and committees	160 000	
	4.	Special missions	70 000	
	5.	Seminars, symposia and conferences	180 000	
	6.	Distribution of information	260 000	
	7.	Scientific and technical services and laboratory charges	885 500	1 555 500
III.		The Secretariat		
	8.	Salaries and wages	2 467 000	
	9.	Common staff costs	1 030 000	
	10.	Duty travel of staff	180 000	
	11.	Representation and hospitality	32 500	3 709 500
IV.		Common services, supplies and equipment		
	12.	Common services	224 000	
	13.	Non-technical supplies and equipment	129 000	353 000
				6 261 000

2. Decides that the foregoing appropriations shall be financed as follows:

(a) US \$100 000 from miscellaneous income; and

(b) US \$6 161 000 by contributions from Member States on the basis of a scale of assessments to be determined by the General Conference, and that the contributions due from Member States shall be adjusted in terms of the Agency's Financial Regulations to take into account the cash surplus for 1959; and

3. Authorizes the Director General, with the prior approval of the Board of Governors, to make transfers between any sections in paragraph 1 above.

B.

The General Conference,

Accepting the recommendation of the Board of Governors,

Noting that miscellaneous income available for operational purposes in 1962 is estimated at US \$55 000,

1. Decides that the target for voluntary contributions to the General Fund in 1962 shall be US \$2 000 000;
2. Decides that the Agency's Operational Program for 1962 shall be as follows:

	<u>United States dollars</u>	
<u>Operating Fund I</u>		
Laboratory facilities		262 000
<u>Operating Fund II</u>		
Fellowships and training program	827 000	
Technical assistance program	758 000	
Research contracts program	168 000	
Mobile radioisotope laboratories	40 000	1 793 000
	<hr/>	<hr/>
		2 055 000
		<hr/>

3. Urges Member States to make voluntary contributions to the General Fund in 1962 in accordance with Article XIV, F of the Statute so as to enable the Agency fully to implement the program set out in paragraph 2 above; and
4. Authorizes the Director General to employ staff for the Agency's laboratory facilities in addition to that for which provision is made in the budget for 1962, provided that the salaries and other costs of such staff are met from revenues arising out of work performed in the laboratory facilities for Member States, research grants, special contributions which may be made for such purposes and other sources extraneous to the Regular and Operational Budgets for 1962.

II. USE OF THE WORKING CAPITAL FUND IN 1962

The General Conference,

1. Decides:
 - (a) That the Working Capital Fund of the Agency shall remain at US \$2 000 000 in 1962; and
 - (b) That the Fund shall be financed, administered and used in 1962 in accordance with the relevant provisions of the Financial Regulations;
2. Authorizes the Director General:
 - (a) To make advances from the Fund, not exceeding US \$25 000 at any time, to provide temporary financing for projects and activities of a strictly self-liquidating character which will not necessitate an increase in the Fund in future years;

(b) With the prior approval of the Board of Governors, unless in his opinion the situation requires immediate action before such approval can be obtained, to make advances from the Fund to meet the costs incurred by the Agency in organizing and rendering emergency assistance to Member States in connection with radiation accidents, up to US \$50 000 in each case; and

(c) With the prior approval of the Board, to advance from the Fund such sums as may be required to meet expenses arising from a longer regular session of the General Conference than usual in 1962, or increases in the salaries of staff in the Professional and higher categories which the Board may approve pursuant to decisions of the General Assembly of the United Nations;

3. Requests the Director General to submit to the Board periodic statements of advances made from the Fund under the authority given in paragraph 2 above; and

4. Urges Member States that have not yet done so to pay the advances due by them to the Fund as soon as possible.

