Secrt. Old No. II-27, New No. II-15—75,000—31-1-55.

EDUCATION (1950) Department.

MS SERIES.

G.O. No. 2276 Edn.

Dated 12-8-1950

[Despatch Abstract.]

Back Papers.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Further Papers.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

SECRETARY TO THE MADRAS LEGISLATURE
19 NOV. 1948

007686 (2)

ABTE/48.

College of Engineering, Guindy,
Madras-15, Dated: 16th Nov. 1948.

From
Rao Bahadur Lt.Col.S.Paul, B.E.,
Principal & Secretary,
Standing Advisory Board for
Technical Education,
College of Engineering, GUINDY.

To
The Members of the Standing Advisory Board for Technical Education.

SIR,

SUB: Third Meeting of the Standing Advisory Board for Technical Education.

The third meeting of the Standing Advisory Board for Technical Education will be held at 2-30 P.M. on Thursday, the 2nd December 1948 in the Council Chamber, Fort St.George. The Hon'ble Minister for Education will preside. The Agenda for the meeting will follow in due course. I am to request you to make it convenient to attend the meeting.

S. Paul
17/11/48

SECRETARY.

Copy to The Secretary, Madras Legislature Secretariat, Fort St. George, Madras for information

85926/48

ABTE/48.

College of Engineering, Guindy,
Madras-15, Dated: 22-11-1948.

To

The Members of the Standing Advisory
Board for Technical Education.

Sir,

Sub: Change in the date of the meeting of the Standing Advisory Board for Tech. Edn.

The date of the third meeting of the Standing Advisory Board for Technical Education fixed for Thursday, the 2nd December 1948 has been changed to Wednesday, the 1st December 1948, which please note.

SECRETARY. 22/11/48

Copy to the Secretary to Government, Education and Public Health Department, Fort St.George, Madras.

ASST. SECRETARY TO GOVT.
24 NOV 1948
EDUCATION AND PUBLIC HEALTH DEPT.
87223

Sameaon page 5

ABTE/48. College of Engineering, Guindy, Madras-25, Dated: 22-11-1948.

ASSISTANT SECRETARY, MADRAS LEGISLATURE
24 NOV 1948

007760 (4)

Sir,

Sub: Change in the date of the meeting of the Standing Advisory Board for Tech.Edn.

=====

The date of the third meeting of the Standing Advisory Board for Technical Education fixed for Thursday, the 2nd December 1948 has been changed to Wednesday, the 1st December 1948, which please note.

SECRETARY.

4

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Principal
College of Engineering, Guindy.

ASST. SECRETARY TO GOVERNMENT
24 NOV 1948
EDUCATION & PUBLIC HEALTH DEPTT.

80120

U.O.No. 7686/48-2 M.L.
25.11.48.

18 859/2/48-1

(3) 1

Secretariat of the Madras Legislature.

Please see Letter No.A[illegible]/48, dated 22-11-1948 from the Secretary, Standing Advisory Board for Technical Education at page 1 ante.

His first letter, in which it was stated that the meeting would be held on 2nd December, 1948 was forwarded to the Education & Public Health Deptt. with this Secty. U.O. note No. 7686/48-1 M.L., dated 24-11-1948. This may also be sent to that Department.

24.11.48.

24/11

To P.H. (A)

The main file on the subject has been sent to the M.L. Secty. with the request that the Committee room (room No. 111) may be permitted to be used for the Bd.'s meeting on 1-12-48. This may be added to that file on return.

26.11.48

26/11/48

25/11/48

(b) 9/ E.P.H.(A)

Memo. No. 85920-3/48A Edn dated 29-11-48.

Sub: Techl. Edn.-- Standing Advisory Bd. for Techl. Edn.-- Meeting on 1-12-48.

From the Principal, Engg. college, Guindy, No. ABTE/48 dt. 16-11-48 22 11 48

The Principal, Engg. college, Guindy, is informed that the Leg. Council will not be meeting on 1-12-48 and that the Council chamber is available for the meeting of the Standing Advisory Bd. for Techl. Edn. on 1-12-48.

To the Principal, Engg. college, Guindy.

27-11-48 27/11/48 29/11/48

ABTE/48.

College of Engineering, Guindy,
Madras-15, Dated: 25th Nov. 1948.

To

The Members of the Standing Advisory Board for
Technical Education.

Sir,

Sub: Third meeting of the Standing Advisory Board for Technical Education on 1st December 1948.

=====

Further to my letters ABTE/48 dated 16-11-1948 and 22-11-1948, I am giving below the Agenda for the third meeting of the Standing Advisory Board for Technical Education to be held at 2-30 P.M. on 1st December 1948, at the Committee Room, Fort St.George. The change in the place of meeting from the Council Chamber to the Committee Room may please be noted.

A G E N D A.

(1) Recommendations of the Special Committee for shortening the courses of studies, improving the efficiency in technical institutions etc.

(2) Statistics of technical personnel required by the Province in the next 5 or 7 years.

(3) Opening of Science courses in the Arthur Hope College of Technology, Coimbatore.

(4) Examination and grant of Diploma to the students of the Overseer courses trained in the Engineering College, Guindy and the Polytechnics by a central body.

(5) The need for the continuance of the Technological Diploma Examination Board, in view of the constitution of the Standing Advisory Board for Technical Education.

(6) Conduct of prognostic tests in connection with selection of students for admission to Engineering Colleges.

(7) Any other matter permitted by the Chairman.

I am enclosing herewith brief notes with regard to items 1 to 6. With regard to item (1), in addition to the notes, I am also enclosing a copy of the Report of the Special Committee.

S Paul

SECRETARY,
Standing Advisory Board for Technical Education.

Copy Submitted to the Hon'ble Minister for Education

(8)

NOTE ON ITEM NO.2 OF THE AGENDA OF THE MEETING OF THE STANDING AD-VISORY BOARD FOR TECHNICAL EDUCATION TO BE HELD ON 1st DECEMBER 1948.

SUB: Recommendations of the Committee for shortening the courses of studies, improving the efficiency in technical institutions etc.

****

The meeting of the Standing Advisory Board for Technical Education held on 15th June 1948 set up the following Committee to suggest measures to increase the efficiency of the Engineering Colleges in the Presidency with reference to:-

1. New and additional staff.
2. Equipment and other scientific apparatus.
3. Any other matter which may be conducive to efficiency.
4. For suggesting standards of admission of students to the Engineering Colleges and thereby improving the human material.
5. For examining and reporting on the financial effects of these proposals and
6. For suggesting any other measure that will improve efficiency.

(1) Sri N.Govindarajan, Chief Engineer (Special) - Chairman.
(2) Sri A.R.Venkatachari, Chief Engineer, General.
(3) Sri G.Sundaram, Chief Engineer (Electricity).
(4) Sri S.Govindarajulu, Vice-Chancellor, Madras University.
(5) Sri D.S.Reddy, Director of Public Instruction.
(6) Dr.K.C.Chakko, Principal, Annamalai University Engineering College.
(7) Prof.A.Viswanath, Principal, A.H.College of Technology, Coimbatore.
(8) Sri V.H.Sadarangani, Principal, College of Engineering, Kakinada.
(9) Lt.Col.S.Paul, Principal, College of Engineering, Guindy.

The Committee held 5 meetings, on 16-6-48, 28-6-48, 7-7-48, 30-7-48 and 21-8-48. Although the Committee considered various aspects of technical education referred to them as above, their chief deliberations centred round the shortening of the courses of studies in Engineering Colleges from the present 4 years to 3 years and the introduction of a post-graduate course. They have recommended that the courses of studies be reduced from 4 years to 3 years and a post-graduate course of one year in an Engineering College leading to a M.Sc. University Degree at the end, conferred as a result of an examination. The basic 3-year courses, as contemplated, will be in the branches of Civil, Mechanical and Electrical Engineering. Other details are given in the accompanying copy of Report of the Special Committee which may kindly be perused in this connection.

At present, the courses of studies conducted in the different Engineering Colleges are according to the syllabuses prepared by the Boards of Studies in Engineering of the University concerned. Naturally any change in the courses of studies has got to be approved by the Board of Studies in Engineering. Accordingly, the Vice Chancellor of the Madras University referred this question of shortening of the courses of study in engineering colleges to the Board of Studies in Engineering. The Board held its first meeting on 17th July 1948 to consider this issue. In this meeting, the syllabus for the first year of the shortened course was prepared and sent to the Vice Chancellor for adoption, but he referred the matter back to the Board stating that the Syndicate was unable to consider this proposal piecemeal and that the Syndicate would like to have the whole syllabuses for all the three years together with the necessary alterations in the regulations including transitory regulations. The Board met again on 20-8-48 and 21-8-1948 and it was decided that as the preparation of syllabuses was a laborious task and cannot be undertaken by the Board, it was necessary to form a Sub Committee and entrust it with this work. Accordingly, a Committee consisting of Sri Rao Bahadur A.R.Venkatachari, Chief Engineer (General), Sri Rao Bahadur Lt.Col.S.Paul, Principal, College of Engineering, Guindy, Dr.K.Sukumaran, Professor of Electrical Engi-

Engineering and Mr.N.S.Krishnaswamy Iyengar, Professor of Civil Engineering, was formed to put the requirements of the Syndicate and to furnish them with a complete syllabus for a 3 year course will all its regulations. This Committee was authorised to conclude its work and put up their recommendations to the Academic Council direct. It may be pointed out in this connection that this Committee, particularly the members of staff of the Guindy Engineering College had to work very long hours and on holidays to complete the syllabus, which was by nomeans an easy task, as the syllabus had to be redrawn for certain subjects and the subject regrouped in different ways. Considerable time had to be spent in drawing up the regulations so that every possible aspect of claims that may be made by candidates could be effectively and successfully covered. Thus, after very strenuous work the Committee was able to complete the syllabuses, regulations etc. These were sent to the Registrar, University of Madras by about the 1st September 1948. The Academic Council meeting was held on the 10th September 1948. This subject was item 28-A of the Agenda, and was introduced by Lt.Col.S.Paul, Principal, College of Engineering, Guindy and duly seconded. Lt.Col.Paul traced the history of the introduction of this scheme and stressed the urgent necessity for introducing the same from 1948-49, in view of the very important principles underlying the same. The members of the Academic Council, although convinced with the arguments adduced by Lt.Col. Paul in favour of shortening the courses, were of the opinion, that as this was a very important matter having far-reaching consequences, they would like to have some time in studying these proposals in a more detailed manner before giving their opinion on this matter. On the amendment to the above resulution, it was decided that consideration of this question be postponed to the next meeting of the Academic Council to be held in February 1949. This meant that the shortened course could come into force only from 1949-50, if approved by the Academic Council.

It is observed by the Committee that there will be some saving to the Government and material savings to the students and their parents, consequent on the shortening of the courses. I may, however, point out that for some time after the introduction of the shortened course, the Colleges will have to run two distinct parallel courses, viz., the existing 4 year courses and the proposed 3 year course. In the three year course, the subjects have been regrouped differently and the time-table for the three year course will have to be different from the time-table for the four year course. In drawing up the different time-tables, it was found necessary for employing additional staff during this transition period, say, till the end of 1952. After 1952, there will be a positive savings to the Government when the Colleges have only the three-year course. The Principals of Engineering Colleges have been asked to prepare the exact financial implications and other details underlying this scheme. The Principals are already on this work, which will naturally take some time. These details will be submitted to the Director of Public Instruction in due course.

Besides the shortening of the courses of studies, there are two other important items items in the recommendations of the Committee to which particular reference has to be made. They are with regard to (a) Equipment and (b) Admissions. I am giving below short notes on these two items.

Equipment: The Committee considered this question in some detail and was of the opinion that it was essential to prepare a list of minimum equipment necessary for an Engineering College to train a given number of students in the various branches of Engineering. It was decided to entrust this work to the Principals of Engineering Colleges at Guindy, Kakinada, Coimbatore and Annamalai University. Each Principal was given two departments and was asked to prepare a list of minimum equipment required for those departments to train a particular number of students in those departments. The Principals

have already met a few times and have prepared a preliminary list. These lists have not yet been finalised. It is expected that these will be finalised shortly and submitted to Government in due course. In this connection it has, however, to be pointed out that the lists prepared by the Principals necessarily represent only the minimum equipment that each department of an Engineering College should possess to train a particular number of students in that branch. Additions must, however, be made from time to time to this model equipment in order to keep pace with the rapid developments in the respective departments of the various engineering branches. When dealing with the question of equipment, this point has to be kept in view.

Admissions. The Committee was of the opinion that the present system of selection of candidates to the Engineering Colleges is inefficient and unscientific and that an element of aptitude selection by a competent Board should be introduced, to select candidates possessing leadership, resourcefulness, physical stamina, ability to design etc.

In this connection, it has to be mentioned that at present, selection of candidates to the four Government Engineering Colleges in the Presidency is done by a Selection Committee appointed by the Government. This Committee consists of two non-official members and the Principals of the Guindy, Coimbatore and Kakinada Colleges. The Committee is guided in their work by the various orders issued by the Government relating to communal, district, linguistic and other representation, and further instructions issued by the Director of Public Instruction. Candidates from each community are selected strictly according to the marks obtained by them in the Intermediate Examination of the Madras University, or an equivalent examination, the totals of which are reduced to that of the Madras University. Candidates belonging to the Madras Province alone are eligible for admission, although some seats (17 seats for 1948-49) are usually reserved for students from other Provinces and States. Further, 10% of the total number of seats are reserved for ex-service personnel. Special preference is given to the candidates from the Harijan community. In practice, it is found that there are not sufficient number of ex-service personnel and Harijan candidates and the surplus seats from these two categories are distributed among other communities as explained above according to the Government orders. Selection for all the four Government Engineering Colleges is done at Guindy and the Committee allots the candidates to different colleges in accordance with the instructions of the Government and the Director of Public Instruction.

It has now been felt that the present method of selecting candidates is not efficient and in the matter of selections, other considerations than merit should also be taken into account. They are: (1) Extra academical award, such as B.A.(Hons.), B.Sc.(Hons.) etc., (2) Proficiency in athletic activities; (3) Proficiency in extra mural activities; (4) Membership in U.O.T.C. (now N.C.C.), (5) Physique; (6) Aptitude and resourcefulness and the like.

When considering the above aspects, care should be taken to formulate concrete and specific formulae by which these 'other considerations' can be evaluated to a reasonable degree of accuracy. In any case, it is imperative that there should be no room left for any relaxation in regard to these 'other considerations'.

With regard to the 'other considerations' it is felt that a certain amount of elucidation is required on the points. In the matter of selecting candidates to the Engineering Colleges, it is felt that more than anything else, intelligence test should rank as 'No.One' in any type of tests that may be contemplated. No doubt it is necessary for an Engineer to have a good physique and endurance for sustained hard work under all conditions. A certain amount of aptitude for manipulating mechanical equipment and machinery, leadership for the

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the control and organisation of labour and other problems connected with organised work are also necessary. In selecting candidates for the armed forces, I have had opportunities of not only being present at these tests, but also in being a member of the Board on several occasions for a pre-selection of these candidates on the above lines before the final selection was made by the Selection Board. In formulating any plans for the introduction of such tests, it may kindly be borne in mind that there is a distinct line of division between a mechanic, artisan and an Engineer. Aptitude for being a mechanic does not necessarily mean aptitude for becoming an Engineer. It may be necessary for a mechanic to have a good physique and stamina and an aptitude for handling machinery and tools, which it is not necessary for an Engineer to possess to that degree which is required in a mechanic. On the other hand, if intelligence is given the first place and intelligence test properly conducted, it would be 'Number One' of the 'other considerations'. For want of such intelligence tests, there is no other test that can replace it but a scrutiny into the marks obtained by the candidates in a University examination. If, however, something can be devised which can really test the intelligence of a candidate apart from the marks obtained by the students in an examination, it is felt that, that would be a really good test. In this connection, it is brought to the notice of the members that in selecting candidates for the armed forces from the Engineering College, Guindy, the candidates that were put up ranked Number One in the intelligence test among all the candidates in the Presidency. The Officer who was conducting the intelligence test informed me that the average marks obtained by our students was 40 out of 50, a figure which he had not met in any other centre. In spite of this, when the candidates actually went up before the selection board, many of them were rejected and the Principal, the members of staff and others who knew the students and their capabilities for over 4 years felt that there was something which was not right in the selections. This happened not once, but more than once. It was not also possible to ascertain on what scores these candidates were rejected, when from all considerations they happened to be most suitable candidates. The admission to the Engineering Colleges at the present time is done on definitely fixed rules and can be scrutinised by anyone and there is no divergence in the rules prescribed for the same. When such tests are introduced, it is felt that it will not be possible to have such strict adherence to rules, but there would be a lot of elasticity which is considered not at all desirable. It is, however, for the members to decide what is the right procedure to be followed in regard to admissions for selecting candidates who are really suitable for the studying of the engineering profession.

A suggestion has been made that preference may be given to sons of Engineers, Industrialists and Officers of the Education Department, but this has not been accepted. Another suggestion made is to select a few students more than the available number of seats (say, 20% more) and finally select them after making them undergo some aptitude tests like Prognostic andother tests, as is being done by the fighting services and the central services for recruitment to their departments. The prognostic test is by itself an item in the Agenda (item 8) of the present meeting of the Board. A separate note has also been put on this item.

The other recommendations of the Committee relate to various matters such as, teaching staff, contact between students, parents and staff, creation of a separate Department of Technical Education (Board of Technical Education) its powers, Guaranteed appointments etc. Full details of these recommendations are given in the accompanying copy of the report of the Committee, which may kindly be perused. The Chairman of the Committee is expected to emplain to the members of the Board the various recommendations that have been submitted to the Government. It is expected that the members of the Board will be able to give their valuable suggestions and expert opinion on the various recommendations of this Committee as well as other items in the Agenda.

College of Engineering, Guindy,
Madras-15. Dated:25-11-1948.

SECRETARY,
Standing Advisory Board for Tech. Education.

Report of the Committee set up by the Standing Advisory Board for Technical Education to go into the question of improving the efficiency of technical Education in Engineering.

The meeting of the Standing Advisory Board for Technical Education held on 15th June 1948 set up the following Committee to suggest measures to increase the efficiency of the Engineering Colleges in the Presidency with reference to.--

(i) New and additional staff.
(ii) Equipment and other scientific apparatus.
(iii) Any other matter which may be conducive to efficiency.
(iv) For suggesting standards for admission of students to the Engineering Colleges and thereby improving the human material.
(v) For examining and reporting on the financial effects of these proposals, and
(vi) For suggesting any other measure that will improve efficiency.

1. Sri N. Govindarajan, Chief Engineer (Special) CHAIRMAN
2. Sri A.R. Venkatachari, Chief Engineer (General).
3. Sri G.Sundaram, Chief Engineer (Electricity)
4. Sri S.Govindarajulu, Vice Chancellor, Madras University.
5. Sri D.S.Reddy, Director of Public Instruction.
6. Dr. K.C.Chakko, Principal, Annamalai University Engineering College.
7. Lt.Col. S.Paul, Principal, College of Engineering, Guindy.
8. Prof. A.Viswanath, Principal, A.H.College of Technology, Coimbatore.
9. Sri V.H. Sadarangini, Principal, College of Engineering, Cocanada.

This Committee held 8 meetings on 16-6-48, 28-6-48, 7-7-48, 30-7-48 and 21-8-48, and submits the following recommendations to the Standing Advisory Board for Technical Education.--

3 year basic undergraduate course in engineering.

I. Recommended that the basic undergraduate engineering course of 3 years be in the three branches, Civil, Mechanical and Electrical Engineering and that under Electrical Engineering, there be two sub divisions (1) Electrical Engineering-Power and (2) Electrical Engineering-Tele-Communications.

Instruction in the basic courses of Civil, Mechanical and Electrical Engineering-Power will be given in all the Engineering Colleges in the Presidency.

Instruction in Electrical Engineering-Tele-Communications will now be provided in the Engineering College, Guindy.

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Instruction will be common to all the three branches of Civil, Mechanical and Electrical Engineering in the first year. Selection by the student of the particular branch of Engineering, Civil, Mechanical, Electrical-Power or Electrical-Tele-Communications to be made at the beginning of the second year.

There will be no separate under-graduate course in Highway Engineering.

The Committee observes that the reduction from 4 years to 3 years of the under-graduate courses in engineering will result in some saving in the expenditure incurred by Government on each student and in material saving to the students and their parents.

Post-graduate courses.

II. Recommended that a post-graduate course of one year in an Engineering College leading to a M.Sc. University Degree at the end, conferred as a result of an examination, shall be instituted in addition to the existing M.Sc. Degree obtained by submission of thesis. The post-graduate courses may be allotted in the manner mentioned below to the various colleges and it may be left to the Colleges to institute them as demand may arise, as research staff is found and as finance may permit. The subjects of post-graduate course allotted to each college are recommended to be started generally in the order given.--

(1) GUINDY COLLEGE - (a) Public Health, (b) Highways, (c) Tele-Communication, (d) Production Engineering, (e) Irrigation, (f) Reinforced concrete, (g) Aeronautics, (h) Railway Engineering and Mechanical Transport and (i) Mining and Metallurgy.

(2) VIZAG COLLEGE - (a) Highways, (b) Public Health, (c) Irrigation, (d) Naval Architecture and Marine Engineering, (e) Production Engineering (f) Reinforced concrete, (g) Aeronautics (h) Railway Engineering and Mechanical Transport, (i) Mining and Metallurgy.

(3) COIMBATORE COLLEGE - (a) Textiles, (b) Automotive Engineering, (c) Production Engineering (d) Aeronautics, (e) Railway Engineering and Mechanical Transport.

(4) ANANTAPUR COLLEGE - (a) Mining and Metallurgy, (b) Irrigation, (c) Aeronautics.

(5) ANNAMALAI UNIVERSITY - (a) Irrigation, (b) Reinforced concrete, (c) Highway Engineering.

N.B.- Students who have passed the B.E. Degree after an Under-Graduate course in any one of the Colleges in the Madras Presidency will be eligible for Post-Graduate course in any of the Colleges which impart instruction in that course which the candidate elects.

Research and Doctorate Degrees.

III. Recommended that facilities be providdd in the Engineering Colleges for Research leading to M.Sc. and Doctorate degrees in Engineering.

Co-ordination between institutions and field Developments.

IV. Recommended that a well-designed co-ordination be instituted for Professors, Lecturers, and students of the various Colleges to come into active contact with the laboratories that are attached to the Public Works, Electricity and Industries Departments and to various private industries and also that a well thought out programme of inspection by Professors, Lecturers and Students, of large works in progress in the P.W.D. and Electricity and Industries Departments and of production in private industries be drawn up. A standing Committee of Principals of Colleges, Director of Industries, Chief Engineers and private industrialists may be formed with a view to develop this co-ordination and programme. The programme may in the first instance be for 2 years i.e. upto the vacation of 1950.

Cost involved.

V. Recommended that the extra cost involved in the above suggestions be worked out by the College Principals in so far as inspection by the staff goes. This it is estimated may not be more than Rs.3000/- per College per year. Such extra expenditure in the case of students may be limited to Rs.30/- per student per year and may not exceed a total of Rs.6000/- per year for a College. These inspections will be in addition to the survey camp and other excursions that Government are arranging already. It will be in the discretion of the Principals to allot Rs.30/- per student suggested above in the manner best suited. On students # of the junior classes less. Rs.30/- limit would be the average.

of the senior classes he may have to spend # more and on students

Contact between Students, parents and staff.

VI. Recommended that the extent of the present contact between students and staff be improved, the details being left to the Principals.

It is also necessary to improve contacts between parents and staff; it should be left to the Principals to provide a small tea to the students and parents. There can be to start with two such contacts in a year and the extra expenditure should be limited to Re.1/- per student or parent per year subject to a maximum of Rs.500 for the whole year. It will be in the discretion of the Principals to group students in batches in the manner he considers best for such invitation.

Parents' day.

A Parents' Day should be instituted wherever there is the prospect of a number of parents attending.

Equipment

VII. Recommended that the Principals of all the Colleges meet and prepare a statement

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of [illegible] required for the basic Engi- [illegible] statement should also [illegible] courses as are to be started immediately. [illegible] of the post-graduate courses the Princi[illegible] College where a particular Post-gradu[illegible] will be started will make his own list of e[illegible] ment required for instruction in that post-graduate course.

VIII. Recommended that the following general views of the Committee receive detailed examination by the Government and be implemented in due course.

Adequacy of teaching staff.

It is essential that Engineering Colleges which are required to impart a high standard of instruction in theory and practice should be adequately staffed. Firstly, [illegible] a general optimum proportion between the total number of students taught and the number of professors and lecturers. Secondly, there is a minimum number of professors and lecturers to be provided for each branch of engineering which number will be irrespective of the number of students taught. Thus though the number of students who take Mechanical Engineering for the under-graduate course or say Naval Architecture and Marine Engineering in the Post-Graduate course be only a few still the full complement of staff required to take all the subjects under each one of the branches of engineering has to be employed. Thirdly, where the number of students in a class gets too large for one professor to handle, the class will have to be made into two divisions and the number of lecturers increased as may be necessary. Fourthly, to pay that amount of personal attention to each student so that the student will develop that confidence which will enable him in course of time to handle independently the laboratory equipment, a sufficient number of professors and lecturers will be needed. Fifthly where high voltage electricity is handled or powerful primemovers and machines are run and the students have to be taught gradually to take charge of those machines the risk involved is great and each student has to learn the work directly under the immediate supervision of the professor or lecturer; there has to be a sufficiency of professors, lecturers, and laboratory assistants to make this possible.

When these Engineering Colleges have also to provide instruction for post-graduate course and for research, it is imperative that quality should be the governing factor in the recruitment of professors and cost should take only a second place. Statutory qualifications already prescribed for recruitment of professors will have, where necessary, to be amplified or revised and the selection of professors should be a matter of the deepest concern and should preferably be left to a Committee of experts competent to make the selection. This Committee may be appointed by the Board of Technical Education referred to in

recommendation below. The qualifications demanded of a professor will be not only very high theoretical knowledge in the particular branch of engineering for which he is recruited but also aptitude and experience in conducting research and co-ordinating laboratory practice with practical problems in the field and also guiding students in

College staff to study field practice and interchange of personnel.

It would be desirable to depute professors to study as occasion arises, for a period of 3 months or less, particular aspects of highly specialised problems that may be tackled at the time in any major project or work or industry. Lecturers who are appointed direct to the Educational Service may where necessary, be transferred to the departments or Industries for such periods-say 6 months, 1 year or more, as may give them an insight into the practical problems that arise in the field-so that when they go back to the college they could handle their subjects with a better eye to practical requirements. Such lecturers will retain their lien in the Educational Department and will not lose their promotion in that department because of their temporary transfer elsewhere.

Public Works staff lent to Colleges.

In the matter of Lecturers and Instructors who are at present largely being found from the Public Works Department, it would be desirable to make a proper selection of men who are good at theory and have a flair for teaching. Such men should be taken into the Educational Service with a lien in the Public Works Department. Some administrative device should be found to see that deserving men so transferred to the Educational Service do not lose their promotion in the Public Works Department because of the fact that they remain and continue in the College. They can be attached to the College for two to three months in the first instance before they actually take up lecturing work. In these three months they would attend lecture classes and otherwise spend the period in preparation as future lecturers.

It would also be desirable that the lecturers who are so recruited from the department stop in the College for 5 years and go back to the department for a year or less to get acquainted with up-to-date methods and practices obtaining in the department.

Tenure for Professors.

As between the short term contract and a permanent tenure it would be desirable ~~that~~ that professors in specialised subjects are recruited at the outset on a 3 to 5 year contract and on their proving efficient, they are either taken into a permanent cadre or their contract renewed every time for a period of 5 years so long as they continue to be efficient.

Retiring age.

As there is a paucity of teachers in technical subjects the Committee feels that the retiring age of 55 may be relaxed in the case of

30

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teachers of outstanding ability and where the teacher next in rank is not considered quite mature for promotion.

Lectures by practising Engineers.

IX. Recommended that lectures by practising engineers should be arranged at an annual cost not exceeding Rs.3000/- per year for each College. These lectures may be by visiting lecturers who can deliver periodic lectures every week or fortnight for the whole term or a year, and also occasional.

Creation of a separate department of technical education.

X. Recommended that Technical Education whose scope is growing rapidly should be constituted into a separate department under the Ministry of Education and placed under the administrative control of a Director of Technical Education who will have the status of a Head of a Department. The reasons in support of this recommendation are.--

(a) It is desirable to co-ordinate Technical Education in all its stages namely Engineering Education in the Colleges, Technical Education in Polytechnic institutions and production of a sufficient number of artisans. An integrated policy should permeate the whole range of technical education and such policy is best administered through a single department and not as at present by two agencies viz. Director of Public Instruction and Director of Industries.

(b) The Director of Public Instruction who is now looking after technical education in the Engineering Colleges has not sufficient technical assistance to deal with special problems that arise.

(c) The Director of Public Instruction is overworked and will have enough work on his hands even after he is relieved of the responsibility he has now in Technical Education.

(d) The Director of Industries is also heavily overworked and he would be enabled to devote more of his attention to development of industries if he is relieved of the educational side of his present activities.

(e) To saddle any other head of a department like the Chief Engineer General with the administrative control of Technical Education would not add to efficiency, though this Committee recognises that being the main employer now of the products of the Engineering Colleges the Chief Engineer General should have an effective voice in the technical direction of those Colleges.

(f) It is the view of the Committee that the educational aspect on the one side and the utilitarian aspect on the other side of technical education should each receive its due consideration and a balance should be maintained.

(g) The Committee considers that unemployment among technically educated will create more problems than unemployment in non-technical education and so a correct estimate of demand and supply and co-ordination would require a special study which would be difficult to make until technical education should be made the special charge of a Director of Technical Education.

A Board of Technical education.

XI. Recommended that a Board of Technical Education should be formed with representatives drawn from all the main agencies that will employ the products of technical education such as the Public Works, Electricity, Industries, Railways, Harbours etc. and from those in charge of technical education viz. Principals and Heads of Technical institutions.

Powers of the Board.

XII. Recommended that this Board of Technical Education should be consulted in all matters of policy regarding technical education and its conclusions should have a mandatory force on the Director of Technical Education who as the executive Head of the Department of Technical Education will implement them in their day-to-day applications.

Powers of the Board.

XIII. Recommended that this Board should have powers to devise suitable machinery and to appoint expert and advisory committees to consider and advise the Board in all matters of technical education at different levels that will come under its purview.

Examinations.

XIV. Recommended that a reasonable proportion of the examiners for the University Degree and other diplomas be drawn from other universities and institutions and from practising Engineers.

Admissions.

XV. Recommended that the existing procedure regarding admissions of students into the Engineering Colleges should be revised. The present procedure is unscientific in that it takes no account of the aptitude of the candidates for the costly course the Government provide and is regulated on the basis of community, district, and marks all of which do not constitute a real test of the students' fitness for the Engineering course.

It is found that the admissions made exhibit selection from a wide range of marks and that merit as judged by the marks does not always prevail in the selection. While the Committee recognises that so long as there are not sufficient number of institutions to provide for the particular line of technical education that the applicants desire to have, it would be necessary to resort to some process of selection that may not fully answer requirements of efficiency, the Committee feels that an element of aptitude selection should be introduced and a competent Board which can judge the aptitude of the candidate should be formed and entrusted with the selection. This Board should in the

matter of admissions into the colleges carry out the policy that will be laid down by a sub committee of the Technical Education Board and has the approval of the Government. The aptitude of the students for an engineering education will be judged by tests on constructive activity, ability to design, resourcefulness, physical stamina, adaptability etc.

Guaranteed appointments.

XVI. Recommended that the Government should reintroduce the practice of guaranteed posts to be filled from students who come out top in the B.E.Examination of the Universities.

(Sd.) N. Govindarajan — Chairman.
(Sd.) G. Sundaram — Member.
(Sd.) S. Govindarajulu — "
(Sd.) D.S. Reddy. — "
(Sd.) K.C. Chakko. — "
(Sd.) S. Paul — "
(Sd.) A. Viswanath. — "
(Sd.) V.H. Sadarangani. — "
(Sd.)*A.R. Venkata Acharya. — "

*Note:-- Sri A.R. Venkatachari dissented from the recommendations X(e) and XII of the Committee - Vide Note accompanying.

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ADDITIONAL BOOK. Register Number ———— C.F. 498.

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ADDITIONAL BOOK. Register Number ——— O.F. 486.

N O T E.

In regard to recommendations in X(e) and XII the Chief Engineer (General and Irrigation), Sri A.R. Venkatachari dissented from the recommendations of the Committee. In regard to X(e) he was of opinion that the Engineering Colleges should be under the control of the Chief Engineer, P.W.D. When the matter was further discussed and it was found that there were some advantages in constituting a Directorate of Technical Education composed not merely of the Engineering Colleges but also Trade Schools and Polytechnics controlled by the Director of Industries and the Technological courses like Chemical, Textiles and Leather, run by the Universities, he agreed to the Committee's proposals with the qualification that the Chief Engineer, P.W.D. should have a real and effective voice in the shaping of Engineering Education so far as the Engineering Colleges were concerned. He found himself definitely unable to accept the recommendation XII because the suggestion that a Board should deal with all branches of technical education could not, in his opinion, secure an effective voice for the Chief Engineer so far as branches of Engineering under his control were concerned. As the largest employer at present of Civil Engineers and Civil Engineering Graduates, his proposals should not be exposed to the risk of a veto at the hands of the majority in the Board composed, as it would very likely be of Engineers and Industrialists many of whom may not be Civil Engineers. Proposals which might be considered vital to the running of his Department might not find acceptance in the Board and the Engineering education might not meet the requirements of the Department committed to his charge. He wanted that the Chief Engineer's recommendations in this matter should be effectively implemented. It was pointed out to him that no Board which wishes to take a reasonable view of things may allow itself to be so swayed by the opinion of those members who may not have a primary but only a secondary knowledge of the particular subject discussed. Mr. Venkatachari however did not agree with this view and wished that his opinion should go on record as he still felt that the arrangements proposed would not produce the best results. I am therefore putting this on record for the information of the Government, The majority of the members however accepted recommendations X(e) and XII as they stand.

Sd. N. GOVINDARAJAN,

Chairman.

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ADDITIONAL BOOK. Register Number_____ C.F. 498.

(21) 39

NOTE ON ITEM 2 OF THE AGENDA FOR THE MEETING OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION TO BE HELD ON 1st DECEMBER 1948.

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Sub: Statistics of technical personnel required in the Province in the next 5 or 7 years.

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On the first meeting of the Standing Advisory Board for Technical Education held on 24-1-1948, the number of technical personnel of all categories required for employment under Government Departments, private enterprises and other agencies was put up for discussion. These figures were mainly obtained from the deliberations of the Post-War Reconstruction Committee and other figures obtained from the Chiefs of various Engineering services. A doubt was, however, raised whether these figures were correct, as the numbers appeared to be very large. The Standing Advisory Board for Technical Education in the same meeting appointed a Committee consisting of (1) The Chief Engineer (General), (2) The Chief Engineer for Electricity, (3) The Joint Director of Industries and Commerce, (4) Sri N.S.Varadachari, M.L.A. and (5) the Principal, College of Engineering, Guindy to collect statistics of technical personnel necessary for the Province in the various spheres of activity including Industries, Agriculture, Sanitary Engineering, Village Water Works etc. This Committee after due deliberations, drew up a detailed questionnaire and a covering letter to be sent to various employers. This questionnaire and covering letter were sent to various employers of technical personnel - Government engineering departments, industries, armed services, central services etc., all numbering about 50, on 3-9-1948 and they were requested to return the questionnaire duly filled in by 1st October 1948. So far, 13 employers have given the necessary information asked for. 8 employers have written stating their inability to furnish the required information. Reminders are being continuously sent to those who have not yet sent the information.

The object of collecting these statistics is to find out the number of technical personnel required during the next 5 or 7 years for manning the Government departments, various industrial concerns, both Government and private, and other services. A doubt was raised as to whether the present Engineering Colleges of this Presidency and the Polytechnics and other industrial training centres would be able to train sufficient number of technical personnel to meet the anticipated demand. The Scientific Man Power Committee of the Government of India anticipate that a large number of technical personnel of all categories would be required in the next 5 or 7 years and that the present training institutions would not be able to meet the anticipated demand. The Provincial Government, however, have anticipated this demand and have opened new Engineering Colleges in the Presidency and have also opened Polytechnics on a regional basis. Whether these Engineering Colleges and the Polytechnics can furnish the number required is a point to be seriously considered. If they are not able to turn out the required number, the Government will have to devise other ways and means for training the required number.

The replies received so far are not complete and it will therefore be discussed in a meeting of the Sub Committee a few days before the meeting of the Standing Advisory Board for Technical Education and the Chief Engineer (General) will place the information already available to the members of the Board for their considered and expert opinion.

College of Engineering, Guindy,
MADRAS-15, Dated: 25-11-1948.

SECRETARY,
Standing Advisory Board for Technical Education.

ADDITIONAL BOOK. Register Number_____ C.F. 498.

(92) 9

NOTE ON ITEM 8 OF THE AGENDA OF THE MEETING OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION TO BE HELD ON 1st DECEMBER 1948.

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Sub: Opening of Science courses in the Arthur Hope College of Technology, Coimbatore.

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In September 1947, the Principal, Dr.J.J.Rudra, was asked to place the subject of 'Opening of Science courses in the A.H.College of Technology' before the Sub Committee of the defunct Expert Committee and submit their views on the matter to the Director. The matter was discussed, but the views of the Sub Committee were evidently not sent to the Director of Public Instruction.

In July 1948, in reply to the Director's letter, the present Principal gave an account of the deliberations of the Sub Committee and stated that except Prof.Viswanath and Prof.Sadarangani, the other members of the Sub Committee were agreeable to the proposal of starting science courses in Engineering Colleges. But in the first meeting of the Standing Advisory Board for Technical Education, it was elicited that there was a colossal demand for technical personnel of various categories for the different development plans of Government and private industries. It would not be in the best interests of the Presidency to utilise the equipment, buildings of the Engineering Colleges for the purpose of training science graduates, when they can advantageously be used for turning out Engineers. Hence, the amount available from Government should be used for the equipment and buildings of Engineering Colleges for training Engineers for which there is such a great demand. The Principal also suggested that Engineering Colleges should give only lectures in science subjects and the practical work must be done in the nearby science colleges. In conclusion, the Principal suggested that the question of opening of science courses at the A.H. College can be deferred and the matter referred to an expert body like the Standing Advisory Board for Technical Education. This suggestion has been accepted by the Government and the Principal has been asked by the Director to include this subject in the Agenda for the next meeting of the Board.

In this connection, it may be noted that the question of 'Opening of Science courses in the A.H.College of Technology' is not an urgent matter requiring immediate solution. The Arthur Hope College, as at present situated is not finding it possible to accommodate all its normal engineering students. This year, the first year students of that College are admitted in the Guindy Engineering College in view of the shottage of accommodation at Coimbatore College. However, this question has a bearing with regard to the permanent location of the College. Already, the Government have appointed a Committee with the Chief Engineer, General, as Chairman and the Principals, Arthur Hope College of Technology as Secretary to go into the question of preparation of plans and estimates for all the new Engineering Colleges in the Presidency including the Arthur Hope College of Technology. In the preparation of plans and estimates for the permanent buildings of the new Engineering Colleges, it is very necessary that this Committee should know whether the new Colleges in general and the Arthur Hope College of Technology, in particular, will have Science courses as part of their courses of study. Hence this question has got to be considered and settled in principle by the Board which will enable the Committee to shape their plans and estimates accordingly.

S Paul

College of Engineering, Guindy, Madras-15, Dated: 25-11-1948.

SECRETARY,
Standing Advisory Board for Technical Education.

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ADDITIONAL BOOK. Register Number ——— C.F. 498.

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NOTE ON ITEM 4 OF THE AGENDA FOR THE MEETING OF THE STANDING ADVISORY BORAD FOR TECHNICAL EDUCATION TO BE HELD ON 1st DECEMBER 1948.

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Sub: Examination and grant of Diploma to the students of the Overseer course trained in the Engineering College, Guindy and the Polytechnics, by a Central Body.

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In December 1947, it was suggested by the Government that consequent on the starting of the Overseer course in the Engineering College, Guindy and the proposed starting of a similar course in the Government Polytechnics also from 1948, whether it would not be better to leave the work of examining the candidates of both the Engineering College and the Polytechnics to a central body, viz., the Technological Diploma Examination Board under the Director of Industries and Commerce. The Director of Public Instruction referred this matter to the then Principal for remarks. The Principal in his reply compared the examinations conducted by the Technological Diploma Examination Board and the Engineering College and stated that,

(1) The Technological Diploma Examination Board was not suitably constituted for conducting examinations in that it has no Board of Studies and no Board of Examiners.

(2) The system of examination conducted by the College was for every year whereas the Technological Diploma Examination Board conducted only one examination at the end of the course.

(3) The Overseer course had been started at an odd time (viz., in October 1947) and the Guindy College was the only College having this course. When the other Polytechnics and Engineering Colleges take up this course, this question could be taken up for consideration.

(4) The question of the existence and continuance of the Technological Diploma Examination Board, in view of the constitution of the Standing Advisory Board for Technical Education, has been raised and until this question at least is considered and decided upon by the Standing Advisory Board for Technical Education, the present mode of examination by the College may continue.

The Director of Public Instruction has now asked the Principal to place this matter before the Standing Advisory Board for Technical Education.

As pointed out by the former Principal, Dr.Rudra, it is necessary for forming a Board of Studies for the Examinations which are conducted for the students of the Polytechnics and also those undergoing the Overseer course either in the Polytechnics or the Engineering Colleges. Technical Education of all categories in the Presidency should come under one Board of Technical Education is one of the recommendations of the Special Committee to be considered in item (1) of the Agenda. If the Standing Advisory Board for Technical Education accept this recommendation, then the conduct of the examinations for the Overseer course students studying in the Polytechnics and in the Engineering College, Guindy will be done by this Board of Technical Education, who will appoint the necessary Board of Examiners in due course. If, however, this recommendation is not accepted by the Board, then it will be necessary to have a Board of Studies and a Board of Examiners for the conduct of examinations for the students of the Polytechnics and for those studying in the Engi-

Engineering College. When the Polytechnics develop, the Over-
[illegible] students would gradually be absorbed in the Polytechnics
and it would be [illegible] of the Government to utilise the
Engineering Colleges for the purpose of turning out Engineers,
post-graduate students and scholars doing specialised research
work. Until such time, the Engineering Colleges which are per-
haps much better equipped than the Polytechnics at the present
time may take up the training of Overseers. The training of
Overseers and the supervisory type of personnel has been lost
sight of in the impetus to turn out Engineers. For every Engi-
neer that is employed there ought to be at least 6 or 7 super-
visors of all categories if the various services have got to be
properly manned. This point has been very strongly urged by the
Scientific Man Power Committee and also by the President of the
Institution of Engineers (India) in the last Presidential Address.
The Madras Government have rightly launched on the development
of Minor Irrigation schemes in this Presidency and in order to
this successfully, Overseers in large numbers will be required
and the Premier of this Province has expressed that in this de-
velopment, he should not be held up for want of adequate number of
supervisory staff for this purpose.

The members of the Standing Advisory Board for Technical Education may consider all the above points. It would perhaps be a good idea to let the present system continue and allow the Engineering Colleges to examine their Overseer course students independently and the Polytechnics to examine their Overseer course candidates under the Technological Diploma Examination Board until such time the Polytechnics can take over the complete training of the Overseers required for the Presidency.

College of Engineering, Guindy,
Madras-15, Dated: 25-11-1948.

S. Paul

SECRETARY,
Standing Advisory Board for
Technical Education.

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ADDITIONAL BOOK. Register Number _____ C.F. 498.

(25) 49

NOTE ON ITEM 5 OF THE AGENDA FOR THE MEETING OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION TO BE HELD ON 1st DECEMBER 1948.

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Sub: The need for the continuance of the Technological Diploma Examination Board, in view of the constitution of the Standing Advisory Board for Technical Education.

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In October 1947, a communication was sent to the Principal by the Director of Public Instruction, in which it was stated that a question has been raised, as to whether with the constitution of the Standing Advisory Board for Technical Education, there is need for the continuation of the Technological Diploma Examination Board. Under instructions from the Hon'ble Minister for Education, this item is now placed on the Agenda as item 5.

One of the recommendations of the Special Committee appointed by the Standing Advisory Board for Technical Education is the formation of a Board of Technical Education who will deal with all matters connected with technical education--collegiate standard, polytechnic type and industrial schools for the training of artisans etc. If this recommendation is accepted, a new Board will be created which will more or less have the same mambers as the members who now constitute the Standing Advisory Board for Technical Education. In considering the recommendation of the Special Committee in item 1 of the agenda, some decision will have to be arrived at as to the future of the present Standing Advisory Board for Technical Education. In any case, it is considered that there is need for a small Board consisting of fewer members for the conduct of examinations for the students studying in the Polytechnics of this Presidency. Even if the new Board of Technical Education is formed and the collegiate education for turning out Engineers comes under their immediate purview, the University will still have its own Board of Studies and its own Board of Examiners for the conduct of University examinations. A similar Board consisting of suitable members is necessary for the conduct of examinations for the students studying in the Polytechnics. It is for the members of the Standing Advisory Board for Technical Education to decide whether the Technological Diploma Examination Board should be allowed to continue or whether a new Board has got to be formed for this purpose.

S. Paul

College of Engineering, Guindy,
Madras-15, Dated: 25-11-1948.

SECRETARY,
Standing Advisory Board for
Technical Education.

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(86)

NOTE ON ITEM 6 OF THE AGENDA FOR THE MEETING OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION TO BE HELD ON 1st DECEMBER 1948.

Sub: Conduct of prognostic tests in connection with selection of students for admission to Engineering Colleges.

In March 1948, Mr.C.T.Philip, Senior Lecturer, Government Arts College, Rajahmundry wrote a letter to the Director of Public Instruction through the Principal, College of Engineering, Guindy in which he has stated that, (1) The All India Advisory Council of Technical Education had stressed the importance of using prognostic tests for the selection of technical students, (2) the present method of selecting students on the basis of their achievements in academic subjects had proved inefficient, (3) it was very essential that persons who have the real aptitude for technical studies must be selected to undergo technical studies. This had been done for the selection of technical men for the defence forces and was necessary also in the case of our Engineering Colleges that prognostic tests should be conducted for detecting engineering potentialities. (4) A grant of Rs.250/- to be sanctioned to enable him to construct and try out a few tests of the kind during the summer vacation. The then Principal in forwarding this letter to the Director of Public Instruction agreed with the suggestion of Mr.Philip and recommended the sanction of Rs.250/- for the purpose of carrying out the necessary research in the College Workshop in consultation with him. He also suggested that to begin with, 20% of the seats may be filled on the basis of the tests designed by Mr. Philip and personal interview by the members of the Selection Committee, and after studying the results of Mr.Philip's experiments, it may be extended to a larger percentage of candidates in subsequent years. The Government now require the opinion of the members of the Board on this subject and hence it has been placed on the agenda as item 6.

In this connection, I wish to bring to the notice of the members that the exact details of the tests have not been furnished by Mr. Philip. In 1941, when the College of Engineering was turning out Air Force Mechanics and War Technicians, the selection of these candidates was made by a Selection Board. The Selection Board were guided in their selection by a personal interview of the candidates and by eliciting information about the keenness that a candidate had for the study of subjects relating to Aeronautical Engineering and other mechanical studies. After the selection, Mr.Philip carried out a series of tests on the candidates already selected and his result more or less agreed with the selections already made by the Selection Committee, i.e., he did not find any of the candidates already selected as not having a mechanical aptitude. As pointed out in my note on item 1 of the Agenda, under 'Admissions', it is for the members to decide whether aptitude for being a mechanic is also aptitude for being an Engineer. Intelligence test as pointed out is of primary importance for selecting a candidate for admission into an Engineering College and not so much as aptitude for being a good mechanic. Unless more detailed information is available from Mr.Philip, it would be difficult for the members to give their opinion on this matter. To find out whether the tests now suggested by Mr.Philip has a real scientific background, he may be asked to conduct a series of tests on the students who are already admitted to the Engineering College and who are now studying in the various branches. The ability of these students are well-known to the members of staff who handle their classes and the result of the selection by his tests and the record of the students may be compared. If this data can be furnished to the members of the Board, they may be able to come to some definite conclusion about the introduction of prognostic tests for selecting candidates for admission to the Engineering Colleges.

College of Engineering, Guindy,
MADRAS-15, Dated:25-11-1948.

SECRETARY,
Standing Advisory Board for Technical Education.

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Edn and P.H.Dept

U.O.Noti 85920-4/48A Edn.d. 1-12-48

There will be a meeting of the Standing Advisory Board for Tech. Edn at 2.p.m to day in the Council Chamber. The Secy, Madras Legislature may be requested to depute one of the reporters to report on the proceedings of the meeting.

Minister 1/12/48

DM 1/12/48

Secy. to the Legislature

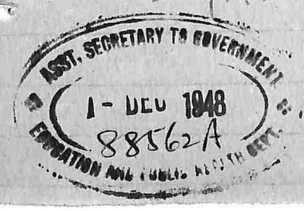
Sri Chandrasekharan may be deputed for the purpose.

Addl 1/12/48.

28/11/12

2.U.7964-1 M.C

1.12.48



Duplicate Copy given in pursuance to Principal, Engg. College, Guindy.

PROCEEDINGS OF THE THIRD MEETING OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION.

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The third meeting of the Standing Advisory Board for Technical Education was held in the Council Chamber at 2.30 P.M. on 1st December 1948, with the Hon. Sri T.S. Avinashilingam Chettiyar, Minister for Education, in the chair.

A representative gathering of Engineers and Non-Engineers of various Colleges were present. Besides, the Vice-Chancellor of the Madras University, The Director of Industries and the Director of Public Instruction were also present.

Initiating a general discussion on the Report submitted by the Committee set up under the chairmanship of Sri N. Govindaraja Iyengar, Chief Engineer (Special), the Chairman referred to the various recommendations contained in the Report and said that one of their most important recommendations was that the basic under-graduate Engineering Course should be reduced from four years to three years in the three branches of Civil; Mechanical and Electrical Engineering. At the same time they also observed that that reduction would, without impairing efficiency, result in some saving in expenditure to Government and also in material saving to the students and their parents. In this connection, they also recommended that a post-graduate course of one year in ~~an~~ Engineering leading to an M.Sc. University Degree at the end, conferred as a result of an examination, should be instituted in addition to the M.Sc. Degree obtained by submission of thesis. In addition, they had recommended that facilities be provided in the Engineering Colleges for research leading to M.Sc. and Doctorate Degrees in Engineering.

Proceeding, he said that these recommendations were generally approved by the Technical Education Board and the matter was referred to the Universities. The next important proposal, he added, was with regard to the creation of a Technical Education Board with a Director of Technical Education to be in charge of the development of technical education in the province.

The Committee had also made many other recommendations to

improve the efficiency of technical institutions in the province.

Concluding, the Chairman said that the Government would be very glad to have their considered views on those matters contained in the Report.

Then the general discussion began.

Mr. Sanjeevi Reddi, speaking first, said that Mining and Metallurgy should not be clubbed together. In his opinion, Mining was a separate branch of Engineering and should be separated from Metallurgy. He also felt that one year's basic training in a post-graduate course was essential.

Mr. Mani (Director of Industries), speaking on the general discussion, said that his Department was misrepresented in the Report submitted by the Committee. In his opinion, the Diploma Course was making satisfactory progress and with better type of men with suitable qualifications forthcoming in large numbers, technical education should be carried on satisfactorily. At the same time, he felt that the Director of Technical Education could not carry out effectively the various functions that are involved in the matter of technical education. In this connection, he said that he was confident that his Department would look after its own job quite effectively without the proposed Technical Board . He also felt that co-ordination could not be done by the Director of Technical Education alone.

Dealing with the Mechanical Engineers, he said that they were paid a very low salary of Rs.150/- a month and requested the Hon. Minister for Education to look into their case.

Regarding the proposed reduction of the Engineering Course from four years to three years, he was of the opinion that the proposed three-year-course would be inadequate and that the four-year-course should be continued because he felt there was no urgent need for a large number of people to be on the field. The persons already in that field would be sufficient to meet the present requirements of the province.

Mr. Seshadiri could not understand on what basis the proposed reduction of the Engineering Course would be carried out. He wanted more explanation on the matter so that he might be enlightned on the point. In his opinion, the average standard was likely to work out very lower and that one could expect only"an ill-turned out material". Therefore, he felt that the proposal to reduce the period to three years, was rather a risky thing.

Mr. Ramayya characterized the proposal to reduce the period to three years as a 'retrograde step and a step in the wrong direction'.

Mr. Govindaraja Iyengar was satisfied that three years would be sufficient ~~to~~ in order that Engineers could carry out executive work ~~by Engineers~~. He said that Mechanical Engineering was discouraged in the past and therefore ~~xxxxxxxx~~ the province was short of Mechanical Engineers, but it was not the case now. In this connection, he referred to the fact that the whole design for the Ramapadasagar Project was drawn up by the Engineers of this province. This showed that Mechanical Engineering could easily be learnt by anyone.

Mr. Venkatachari ~~also~~ agreed with the previous speaker that the period should be reduced to three years.

Mr. Paul said that though the Committee had decided to have a three-year-course, it was still a matter for the University to take a decision. He desired that M.Sc. Degree should be taken by an examination.

Speaking on Mechanical Engineering, he said that the mechanical engineers of the Madras Province were far more efficient than those in other provinces in India. In this connection, he revealed that during the war 17 out of 19 engineers were selected from the Madras Engineering College.

Dr. Sir A. Lakshmanaswamy Mudaliyar thought that this matter was vital to the University and declared that he could not commit himself to any of the decisions that may be arrived at in the meeting. He pointed out that though the Government of Madras might be

anxious to get the right type of engineers suitable for work, the University was not anxious on similar lines. The University had to take various aspects into consideration and it was probable that the viewpoint of the Government might not be the same as that of the University. This question, he said, was under the consideration of the Inter-University Board in 1944 and 1945 and they felt that there should be some uniformity though not absolute similarity in regard to Engineering qualifications. One of their recommendations was that the duration of the course leading up to the Degree should be four years. As far as he was concerned, he felt that the Madras University could not afford to take a separate line in the matter.

Recalling his visit to America, he referred to the compliment paid by the American Engineers to the Indian Engineers, especially Madras Engineers, when their plan for the Ramapadasagar Project was produced before them.

Proceeding, he said that if the period had to be reduced to three years, then more attention should be paid to the personnel of the teaching profession. Secondly, the number of teachers in the Engineering Colleges should be increased. Referring to America, he said that one could find innumerable professors in all branches of Engineering. Therefore, in the anxiety to produce more engineers, one should not run away from the fact that only capable and experienced engineers could be useful to the province. In this connection, he referred to what the Director of Army Engineering Service said on one occasion that the candidates recruited for I.E.M.E. during the war, were not up to the mark and did not possess practical experience. He also wanted that some remuneration should be paid to the professors for the period they undergo training whether in a mill or in a factory.

Concluding, he appealed to the Committee to consider all those points seriously and as far as the University was concerned, he assured that on the question of Engineering Education, the University might not take a unilateral action.

Mr. G. Sundaram wanted that we should take lessons from Russia and England so that we could advance the Engineering course. He did not think that a student would suffer from a lack of practical training if the course was reduced to three years when he had passed Intermediate in Arts. The Vice-Chancellor said that there were more professors in America. But, he did not think that Indiam ~~xam~~ could afford to have more professors. Moreover, in Americam the standard of education was ~~xxxx~~ low and that was the reason why they had more professors. But in India it was not the case. Therefore, so far as Engineering education was coneerned, a three-~~xxxxx~~year-course would be adequate, and ~~it~~ would not impair efficiency.

Mr. Sadarangani (Principal, Engineering College, Cocoanada) agreed with the previous speaker that three-year-course would be sufficient. In support of this contention, he referred to Roorkee Engineering College where they had only a three-year-course. The Syndicate of the Andhra University also approved the recommendation that there should a three-year-course.

MR. G.D. Naidu said that the period should be reduced to two years in the case of an Intermediate student. In the case of a S.S.L.C. student, the period should be four years.

Mr. A. Viswanatham also favoured that the course should be reduced to three years and felt that such a course would meet the immediate requirements of the country.

The general discussion came to an end. The question whether the basis under-graduate Engineering Course should be reduced from four years to three years, was taken into consideration. After putting it to ~~the~~ vote ~~of the House~~, the Board decided that the period should be reduced to three years.

Mr. Sanjeevi Reddi, on a point of information, pointed out that his objection to the clubbing of Mining and Metallurgy was not answered.

After some discussion, the Board decided that further consideration be paid to the matter.

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(33) 63

The Board then took up for consideration the proposal for the creation of a Technical Education Board with a Director of Technical Education to be in charge of the development of technical education in the province.

Mr. Sundaram urged that there should be co-ordination in the matter of technical education. He wanted a Board to advise all technical matters. He suggested that the Board as the framers of policy, should also execute it.

MR. Viswanatham supported the stand taken by the previous speaker and pointed out that this was one of the suggestions made by the Madras Industrial Planning Committee.

Mr. Seshadari felt that there would arise serious difficulties if the development of technical education was entrusted to the Director of Technical Education. He was sure that it would be thoroughly unworkable.

Mr. Sadanangani (Principal, Engineering College, Cocoanada) was of the opinion that no difficulties would arise if technical education was entrusted to the Director of Technical Education because he was not going to interfere with the administrative side of it.

Mr. Pallam Raju shared the same view.

MR. G.D. Naidu pointed out that the University was not in touch with the question of technology or any other thing. Hence, there should be a separate Director.

Mr. Paul feared that there would arise clashes when the question of co-ordination came. He did not like the idea to entrust technical education to a separate Director of Technical Education.

The Director of Public Instruction pointed out that bifurcated courses could not be handed over to the control of the Director of Technical Education because those courses were going to be found in the same school along with the academic types of courses and the teachers would be the same.

The Director of Industries felt that there should be co-ordination for the development of technical education in the province. But one Director of Technical Education could not

co-ordinate the functions of various technical institutions such as Technical High Schools and Industrial schools.

Mr. Ranga Reddi was convinced that both policy-making and executive action could be performed by the one and the same Director of Technical Education.

Mr. Govindaraja Iyengar stressed the need for a unified executive to co-ordinate the activities of all technical institutions and felt that the Director of Technical Education would alone do the same.

Explaining the implications of the proposal, the Chairman said that a co-ordinating board was necessary to co-ordinate the varied activities of technical institutions. The Board also agreed that there should be some coordination. But only when the question of carrying out that co-ordinated policy came, there seemed to be opposition from some of the members. He could not understand why this opposition should come. There should be one agency to carry out both these functions.

The discussion came to a close. After putting it to the vote, the Board approved the proposal to set up a Technical Education Board with a Director of Technical Education to be in charge of the development of technical education in the province.

The Board then adjourned to meet again sometime at the end of January 1949.

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8894/A E&A. To be filed.
KAA 7/12

67

ABTE/48.

College of Engineering, Guindy,
Madras-15, Dated: 16th Nov. 1948.

From
Rao Bahadur Lt.Col.S.Paul, B.E.,
Principal & Secretary,
Standing Advisory Board for
Technical Education,
College of Engineering, GUINDY.

To
The Members of the Standing
Advisory Board for Tech-
nical Education.

SIR,

SUB: Third Meeting of the Standing Advisory Board for Technical Education.

SECRETARIAT, GEN. AND P.W. DEPTS. GOVERNMENT OF MADRAS DEC

The third meeting of the Standing Advisory Board for Technical Education will be held at 2-30 P.M. on Thursday, the 2nd December 1948 in the Council Chamber, Fort St.George. The Hon'ble Minister for Education will preside. The Agenda for the meeting will follow in due course. I am to request you to make it convenient to attend the meeting.

17/11/48

SECRETARY.

Copy submitted to The Hon'ble Minister for Education & Chairman of the Board.

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Office of the Chief Engineer, P.W.D.
(General).

Note by the Chief Engineer (General) on item 2 of the Agenda for the meeting of the Standing Advisory Board for Technical Education to be held on 1st December 1948.

In continuation of the Secretary's note, a meeting of the Committee constituted for this purpose was held in the office of the Chief Engineer, P.W.D. On 29--11--1948, at which Sri Rao Bahadur G.Sundaram, Lt. Col. S.Paul, Mr. P.Govinda Menon and the Chief Engineer (General) were present.

2). The replies received from ten employers is tabulated in Statement A. Significant omissions were the absence of the report of the Chief Engineer (Highways) and the South Indian and M.&.S.M.Railways, who are large employers of technical personnel in this Province. The position as revealed by the replies received was discussed. The number of candidates expected to be available from the Engineering Colleges and the Polytechnic in regard to the Degree holders and subordinates of Overseer or Licentiate Class was roughly worked out.

3). The position as it appears from these is that the arrangements made for the training of the Engineers and the Overseers are generally adequate, taken over a period of five to seven years from 1949. The demands for technical - personnel, it must be noted, are absolutely tentative and depend on Govt's policy in implementing the programmes under Irrigation, Water Supply and Drainage and in all Public Works and Hydro Electric Projects. If there is a contraction of the programme, the demands will be reduced and if there

is

is a very aggressive programme, the production may require to be supplemented. Further examination of this matter will be continued after receipt of replies from some of the 34 employers who have not replied, against the number of 52 to whom the questionnaire was sent.

4) The Committee also discussed the question of suitable training for members of the Artisan class. In Mechanical and Electrical Engineering, there are some facilities available in various Workshops and in firms to take trade apprentices in the regular profession, but no proper facilities for necessary theoretical instruction or special training by master-craftsmen ~~xxx~~ in each trade appear to exist. The apprentices appear to pick up their knowledge in the course of their work with other workmen employed in these firms, workshops and factories. The whole thing has got to be put on a better and ~~xxxxx~~ co-ordinated basis after a full study of the existing conditions. Provision for Payment to a large number of apprentices in Govt. institutions should also be made to attract the right type of lads and in the case of private institutions, suitable subsidies will have to be granted. Apart from this, evening classes or day classes for some days in a week should be held to give the apprentices a course of technical instruction and examinations also instituted, so that candidates who attain particular minimum standards to qualify for the practice of an artisan's profession like a Fitter, Blacksmith, Wireman and so on may be granted certificates by a Board of Examiners similar to Boiler men's certificates. Some facilities of this kind for theoretical instruction exist in the Polytechnics, but they have to be greatly amplified.

5) In the matter of Civil Engineering, there is

little scope for such training at present. A suggestion was made by Mr. Sundaram thatprovisions may be inserted in Civil Engineering contracts by Govt. for training of apprentices in each of the several artisan classes like Bricklayers, Painters, Carpenters, and so on and a certain minimum proportion of apprentices to actual workers may be maintained by each contractor in a large contract. Either the State or the contractor should employ agencies to give theoretical instruction, to supplement the practical instruction, by master craftsmen individually or jointly. The apprentices should also have facilities for attending such courses of instruction by day or in evening classes for certain number of days in the week. Certificates similar to those contemplated for Mechanical and Electrical Engineering should also be awarded in the field of Civil Engineering for qualified Mason, Bricklayers, Painters, Carpenters etc., by a Board of Examiners.

6) The Committee felt that this problem was a large one and could only be effectively examined by a Directorate of Technical education to be newly constituted in accordance with the recommendations to be discussed under Agenda item 1 of this meeting of the Board. This board of Technical Education should constitute an ad hoc committee representing various interests, to make suitable proposals and to handle the subject in all its stages.

Recommendation
30/11/48

Chief Engineer (General).

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STATEMENT "A"

Statement showing requirements of technical personnel of various categories by different employers.

Sl. No.	Name.	Degree holders. (Engineers)	Sub Engg. staff. (Licentiates).	Artisans.	Total	Remarks.
1.	2.	3.	4.	5.	6.	7.
1.	Messrs. Burma Shell & Co.	4	7	39	50	For the next 10 years.
2.	The Chief Engineer (Special)	492	374	122	988	For the next 6 years.
3.	The Port Trust.	45	151	6	202	For the next 7 years.
4.	Sanitary Engineer to Government.	185	220		405	do. 7 do.
5.	The Chief Conservator of Forests.		45		45	do. 7 do.
6.	The College of Engineering Kakinada.	14	10	10	34	1949-50.
7.	The Tata Iron & Steel Co.	15		150	160	For the next 5 years. (It is stated that they have started a special training scheme for training 100 to 150 skilled artisans etc.)
8.	The Chief Engineer (Electricity).	527	613	697	1337	For the next 7 years.
9.	The Director of Industries & Commerce	230 *	249 *	1243 @	1722	*For the next 4 years. @For the next 7 years.
10.	The Chief Engineer (General)	(1) 203	273		476 or 1008	For next 7 years under present tempo of activity. OR For next 7 years under medium tempo of activity. OR
		(2) 420	588			
		(3) 1140	1444		2584	For next 7 years under agressive tempo of activity.

Notes of speech delivered by Hon'ble Sri T.S. Avinashilingam, Minister for Education, at the meeting of the Standing Advisory Board for Technical Education held at 2.30 P.M. on 1st Dec., '48.

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Let me welcome you to this meeting of the Standing Advisory Board for Technical Education. This Board, in its meeting of the 15th June of this year, set up a committee under the chairmanship of Sri N. Govindaraja Iyengar, Chief Engineer (Special) to go into the matter of suggesting measures for making our Engineering Colleges more efficient. Besides, the two Chief Engineers, for Electricity and General, the acting Vice-Chancellor of the Madras University, the Director of Public Instruction and the Principals of some of the Engineering Colleges were members of the Committee. That Committee has submitted its report. The Report of a Committee consisting of such eminent specialists is entitled to our deep consideration. That Report is the main subject for discussion in today's meeting.

One of their most important recommendations is the recommendation that the basic under-graduate Engineering Course be three years in the three branches of Civil, Mechanical and Electrical Engineering and that under Electrical Engineering, there be two sub divisions (1) Electrical Engineering-Power and (2) Electrical Engineering-Tele-Communications. Instruction in the basic courses of Civil, Mechanical, and Electrical Engineering-Power will be given in all the Engineering Colleges in the Presidency. Instruction will be common to all the three branches of Civil, Mechanical and Electrical Engineering in the first year. Selection by the student of the particular branch of Engineering to be made in the beginning of the second year. There will be no separate under-graduate course in Highway Engineering. The Committee observes that the reduction from 4 years to 3 years of the under-graduate courses in Engineering will, without impairing efficiency, result in some saving in expenditure to Government and also in material saving to the students and their parents.

This recommendation must be read with their second recommendation that a post-graduate course of one year in an Engineering

College College leading to an M.Sc. University Degree at the end, conferred as a result of an examination, shall be instituted in addition to the M.Sc. Degree obtained by submission of thesis. The post-graduate courses may be distributed amongst the various Engineering Colleges in this province. Such post-graduate courses will be for Public Health, Highways, Tele-Communications, Production Engineering, Irrigation, Reinforced Concrete, Aeronautics, Railway Engineering and Mechanical Transport, Mining and Metallurgy, Naval Architecture and Marine Engineering, Textiles and Automotive Engineering. Students who have passed the B.E. Degree after an Under-Graduate course in any one of the Colleges in the Province of Madras will be eligible for any of these post-graduate courses. In addition, they have recommended that facilities be provided in the Engineering Colleges for research leading to M.Sc. and Doctorate Degrees in Engineering.

This matter, as you know, was considered at the last meeting of the Technical Education Board. The Board generally approved these proposals and the matter was referred to the Universities. I understand that the Board of Studies of Engineering of the Madras University have accepted these proposals and have recommended its acceptance to the Academic Council and that the matter is pending decision before the Academic Council. The views of this Board will doubtless be of use to the University in coming to a conclusion over this matter.

The next important proposal in the report is with regard to the creation of a Technical Education Board with a director of technical education to be in charge of the development of technical education in the province. Today, there are four types of technical institutions. One is of the degree level affiliated to the University and that is our Engineering Colleges; the second is the Poly-technics which are of a lower grade; the third is our Technical High Schools and the fourth is the Industrial schools. While the first and the third are under the department of Education, the Poly-technics and the Industrial Schools are in the Industries Department. The Board

feels that as these form different grades of technical education, they may be placed under the administrative control of the Director of Technical Education, with a Technical Education Board to assist him in his duties. This again, is an important matter of reform in administration and the Government will be glad to have your views on this matter.

The Committee has also made many other recommendations to improve the efficiency of our technical institutions such as co-ordination between industrial institutions and field development, contacts between students parents and staff, giving of field experience to staffs of technical institutions and lectures by practising engineers. It is unnecessary for me to go into these recommendations in detail. The Government will consider with interest your views in the matter before taking action on them. There are also other subjects which are on the Agenda today such as the opening of Science courses in Engineering Colleges, the need for the continuance of the Technological Diploma Examination Board, Conduct of prognostic tests in connection with selection of students for admission to Engineering Colleges. etc. On these also, the Government will be very glad to have your considered views.

The importance of Technical Education in the future make up of India cannot be over rated. In fact, the future of a country in the modern world, in peace or in war, depends upon the extent of our technical knowledge and our efficiency of our technical institutions. Hereafter, our standards must be world standards and uhless we keep pace with the world and produce the best by way of technical knowledge and equipment, we shall not be able to attain equality with other nations. Independence must mean to us the creation of a powerful and prosperous India respected and honoured by the nations of the world. This power and prosperity can be built only on a background of knowledge. At no time was applied science and technical knowledge so important to the life of a country than today. And so, it is of the utmost importance that our technical institutions should

be reorganised on modern lines so that they may be of the maximum efficiency.

Apart from these changes, the really important thing for increasing efficiency is the zest and devotion which must inspire those who are in charge of these educational institutions. We may have the best of equipment. We may also have persons who may have that knowledge but without enthusiasm and inspiring leadership, these may not be used to the best advantage. The coming in of independence must inspire us with this devotion to the country. It has been said that eternal vigilence is the price of liberty. This is true in times of peace as in times of war. Our educational and technical institutions must observe this golden rule so that we may be always watchful to make the necessary improvements in our technique and methods.

Many of the proposals placed before you today have been brought forward with this idea of increasing efficiency and Government will be glad to have your considered views in these matters.

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From	To
Rao Bahadur Lt.Col.S.Paul, B.E.,	The Members of the Standing
Principal & Secretary,	Advisory Board for Tech-
Standing Advisory Board for	nical Education.
Technical Education,	
College of Engineering,	
Guindy, MADRAS-15.	

ASST. SECRETARY TO GOVT. EDUCATION AND PUBLIC HEALTH 30 JAN 1949

ABTE/49 Dated: 29th January 1949.

Sir,

SUB: Fourth Meeting of the Standing Advisory Board for Technical Education.

6469

The Fourth Meeting of the Standing Advisory Board for Technical Education will be held at 2-30 P.M. on Monday the 7th February 1949 in the Council Chamber, Fort St.George, Madras. The Honourable Minister for Education will preside. The Agenda for the Meeting is given below. I am to request you to make it convenient to attend the meeting.

A G E N D A.

(1) Items of the Recommendations of the Special Committee for shortening the courses of studies etc., that were not considered by the Board at its last meeting.

(2) Statistics of technical personnel required by the Province in the next 5 or 7 years.

(3) Opening of Science courses in the Arthur Hope College of Technology, Coimbatore.

(4) Examination and grant of Diploma to the students of the Overseer courses trained in the Engineering College, Guindy and the Polytechnics by a central body.

(5) The need for the continuance of the Technological Diploma Examination Board, in view of the constitution of the Standing Advisory Board for Technical Education.

(6) Conduct of prognostic tests in connection with selection of students for admission to Engineering Colleges.

(7) Any other matter permitted by the Chairman.

The Minutes of the last meeting of the Board held on 1st December 1948 will be sent in due course.

S. Paul

SECRETARY,
Standing Advisory Board for
Technical Education.

Copy submitted to The Hon'ble Minister for Education and Chairman of the Board.

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MINUTES OF THE THIRD MEETING OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION HELD ON 1st DECEMBER 1948.

1. The Third Meeting of the Standing Advisory Board for Technical Education was held at the Council Chamber at 2-30 P.M. on Wednesday, the 1st December 1948. The following members were present.

1. Hon'ble Sri T.S.Avinashilingam Chettiar, Minister for Education. CHAIRMAN.
2. Sri D.S.Reddi, Director of Public Instruction.
3. Sri A.R.Venkatachari, Chief Engineer (General).
4. Mr.W.H.Turner, Chief Engineer (Highways).
5. Sri N.Govindaraja Iyengar, Chief Engineer (Special).
6. Sri A.Viswanath, Principal, A.H.College of Technology, Coimbatore.
7. Sri V.H.Sadarangani, Principal, College of Engineering, Kakinada.
8. Sri T.M.S.Mani, Director of Industries & Commerce.
9. Sri P.Govinda Menon, Joint Director of Industries & Commerce.
10. Sri S.Govindarajulu Nayudu, representing the Madras University.
11. Prof.T.R.Seshadri, representing the Andhra University.
12. Dr.K.C.Chakko, representing the Annamalai University.
13. Sri M.Pallam Raju, M.L.A.
14. Sri N.Ranga Reddi, M.L.C.
15. Sri Subramanyam, M. & S.M. Railway.
16. Sri Ramayya, South Indian Railway.
17. Sri B.S.Sanjeevi Reddi, Mining Engineer & Geographical, Kurnool.
18. Sri G.D.Naidu, United Motors, Coimbatore.
19. Lt.Col.S.Paul, Principal, College of Engineering, Guindy. SECRETARY.

ASST. SECRETARY TO GOVT. EDUCATION AND P.H.

7657

2. Dr. Sir A.Lakshmanaswamy Mudaliar, Vice-Chancellor of the Madras University waspresent by invitation.

AGENDA FOR THE MEETING.

(1) Recommendations of the Special Committee for shortening the courses of studies, improving the efficiency in technical institutions etc.

(2) Statistics of technical personnel required by the Province in the next 5 or 7 years.

(3) Opening of Science courses in the Arthur Hope College of Technology, Coimbatore.

(4) Examination and grant of Diploma to the students of the Overseer courses trained in the Engineering College, Guindy and the Polytechnics by a central body.

(5) The need for the continuance of the Technological Diploma Examination Board, in view of the constitution of the Standing Advisory Board for Technical Education.

(6) Conduct of prognostic tests in connection with selection of students for admission to Engineering Colleges.

3. The Hon'ble Minister for Education in his opening speech traced the history of how the Special Committee was formed to consider the question of shortening the duration of the engineering courses of study and for suggesting ways and means to improve the efficiency in the engineering colleges. He classified the report of the Committee into three categories viz., (1) Recommendation for the reduction of the duration of the engineering courses to be taken up immediately. (2) Recommendations which will take sometime for the Government to consider and come to a decision; (3) Recommendations pertaining to changes in the administration of technical institutions.

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(43) 85

4. The Hon'ble Minister amplifying the first recommendation invited the attention of the members that the Special Committee had recommended the shortened three year course in Civil, Mechanical, Electrical and Telecommunication Engineering in the Guindy Engineering College and the first three branches only in the other Engineering Colleges. The M.Sc. degree by examination in various specialised subjects, the Hon'ble Minister remarked had to be considered along with the above recommendations. The shortening of the course from 4 to 3 years, he said, was awaiting the approval of the Academic Council of of the Madras University.

5. The Hon'ble Minister next referred to the creationof a Board of Technical Education to be established under the Ministry of Education with representatives from the Public Works Department, Industries Department and others, with a Director of Technical Education as its executive head to co-ordinate technical education in Engineering Colleges, Polytechnics, Technical High Schools and Industrial Schools. The Hon'ble Minister said that this was a very important proposal and required very careful consideration. The other recommendations, such as field experience, contact between Professors, parents and students, visits to works, giving facilities for Professors to gain experience in big Projects might be considered as minor in character, but had great value in improving the efficiency of our institutions,. It would be necessary to have our institutions of top efficiency. The Hon'ble Minister remarked that eternal vigilance is the price of liberty and God Willing, we will endeavour to make our institutions top efficient. The Hon'ble Minister xx then invited a comprehensive general discussion on all the recommendations, as he proposed to take up the items one by one. He requested the members to give their considered opinion on all points.

6. There was a general discussion in which, the grouping of certain subjects such as Mining and Metallurgy and the necessity for the creation of a separate Technical Education Board were the main topics. At the invitation of the Hon'ble Minister, Sri N.Govindaraja Iyengar, Chief Engineer (Special) introduced the subject, 'Shortening of the duration of the courses of study in Engineering Colleges from 4 years to 3 years, which was one of the recommendations under item (1) of the Agenda. There was considerable discussion on this subject for more than 2 hours. In winding up the discussion, the Hon'ble Minister, invited Dr. Sir A.Lakshmanaswamy Mudaliar, who was present by invitation to speak.

7. The Vice-Chancellor in his speech said that he could not make any statement which would more or less bind the University, until the University had considered this matter in detail. In general, he referred to the quality of the Graduates turned out from the Guindy Engineering College under the 4 year scheme and how they had obtained the approbation of Engineers not only in India, but even from specialised Engineers in America.

8. The question of shortening of the course was then put to vote and was carried by a majority, 14 voting for, three against and two remaining neutral.

9. The next recommendation to be taken up by the Board was the opening of the post-graduate course in various subjects. There was some difference of opinion about the grouping of the subjects and after some discussion, the Board decided that the general proposal for opening a post-graduate course be accepted and the details regarding the same to be examined at a later date.

X

P31-33ante 10. Item X(e) of the report of the Special Committee, viz., the

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creation of a separate Board of Technical Education with a Director of Technical Education to be in charge of all technical education in the Province was next taken up for consideration. This item evinced considerable discussion, especially from the Director of Industries, who had also spoken at great length at the beginning of the meeting. Almost all the members present took part in the discussion. The Hon'ble Minister winding up the discussions said that it was necessary to know the opinion of the Board on this important recommendation and accordingly, it was put to the vote and carried by a majority, 13 voting for, two voting against and one remaining neutral.

11. The Hon'ble Minister suggested that as the time was very late, further consideration of the report may be adjourned to the next meeting which may be held in one of the Engineering Colleges sometime in the last week of January or the beginning of February 1949.

12. The meeting then came to a close at 6-30. P.M.

Sd/-T.S.AVINASHILINGAM
CHAIRMAN.

SECRETARY.

College of Engineering, Guindy,
Madras-15, Dated: 2.2.1949.

To

The Members of the Board.

Copy to The Secretary to Govt. E. & P.H Deptt. for kind information

A5II A 85929/48

Sub: Item 3 (Conduct of prognostic tests in connection with selection of students for admission to Engineering Colleges) of the Agenda for the Fourth Meeting of the Standing Advisory Board for Technical Education to be held on 7-2-1949.

SPECIAL NOTE PREPARED BY DR.G.D.BOAZ, HEAD OF THE DEPARTMENT OF PSYCHOLOGY, UNIVERSITY OF MADRAS.

I. INTELLIGENCE TESTS: (for General Intelligence).

(a) Non-verbal. Some standardised progressive matrix test or some performance test. In the Army the former was used.

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(b) Verbal Test. A battery of selected verbal test items of which there are plenty available.

6 - FEB 1949

II. PERSONALITY TESTS:

(a) Word Association Test: Reveals complexes and personality traits such as 'Introversion'- 'Extroversion', Egocentric nature, Negativism and the development of the different instinctual urges.

(b) Personal history sheet, which includes one's estimate of oneself and one's own account of someone else's estimate. What a friend thinks of you what an enemy thinks of you etc.

(c) Thematic apperception test. (as known in the Army, though this term is not a very happy one). This is actually projective studies on personality. Exposing a few pictures and asking the subjects to write stories on those themes or situations. (The pictures used in the Army were not standardised for Indian conditions). There are a number of other kinds of such tests also.

With the help of these various personality traits, sentiments, level of imagination, sense of reality etc. can be studied.

III. GROUP TESTS:

Different miniature tests relating to the concerned fields of activity, (putting up of a tent, making up a ~~from~~ pontoon bridge with kerosine tins and crossing a pond, rescuing some one from a given situation of danger etc. There are meant to study characteristics like 'initiative' powers of leadership, team-spirit, organising capacity, agility, insight into the demands of the situation etc.

When testing people for a particular profession or proffessional course, these tests may be modified and aptitude tests and 'Trade Tests' may be introduced in some form.

SPECIAL NOTE PREPARED BY MR.C.T.PHILLIP, CENTRAL INSTITUTE EDUCATION, DELHI.

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Prognostic Tests to select students for Engineering Courses.

Students for engineering courses are now being selected on the basis of their marks in mathematics, physics and chemistry. While it cannot be denied that attainments in these subjects indicate capacity for success in engineering subjects, they do not reckon several qualities essential for an engineer. The type of intelligence required to master academic subjects is called abstract intelligence. Psychologists tell us that there is another variety which they call concrete intelligence. If abstract intelligence facilities thinking in terms of ideas and symbols, concrete intelligence facilities thinking in terms of actual objects. Many young men though unable to excel in academic subjects are gifted with concrete intelligence of a high order. The portals of the engineering college will every be closed for such, if selection is made on the basis

(46)

of their marks in academic subjects alone. // There are other intellgctual qualities too demanded by engineering occupations. E.G. a sense of form and shape, ability to perceive a design and copy it without the aid of instruments, a knack to choose the most suitable shape and size to fit into a given space, capacity to imagine cross sections of objects of diverse shapes, facility to perceive objects arranged in three-dimensional space, educe their spatial relations and visualise the changes of pattern brought about by the movement of parts of the system with reference to others etc. Tests for measuring these abilities have been used now for a long time. // Though Engineers do not actually ply a tool or maniuplate machines, on occion they may have to do so. Then if they prove to be clumsy with their hands, they will become the laughing-stock of their subordinates. Manual dexterity tests should, therefore, form part of the selective programme for prospective engineers. // Engineers have to get work done by others. Leadership and capacity to manage men are therefore desirable qualities in an engineer. Social and temperamental traits, then, should be reckoned with in assessing the suitability of a candidate for engineering occupations. Psychologists have not been able to measure temperamental qualities as reliably as they do intellectual qualities. All the same, tests of leadership have been constructed and used widely. // It is very likely that we will succeed in things in which we are interested much more than in things to which we are ~~diff~~ indifferent. Students with an inborn taste for engineering are likely to watch mechanical and electrical devices in action. If therefore simple questions on such contrivances are asked, students with real interest in engineering can be sorted out. Tests of engineering aptitude based on this principle should certainly take an important place in a prognostic examination.

The need for Educational Research in a Modern State.

The vital necessity for educational research is being recognised in India only slowly. It is strange that governments which spend large sumes of money for research in the making of material things have not even made a beginning in research about the making of minds.

Every craftsman tests the qualities of his materials before he works on them. An engineer measures the strength of the iron and concrete with which he constructs a bridge. Our teachers, however, have no scientific means of measuring the minds of the children they teach. It is only by knowing the mental capacities of children that we can educate them in accordance with their abilities, and by methods suitable to their powers of comprehension. Much of the inefficiency of present-day teaching is due to the heterogeneity of the intellectual abilities of a class. It is here that intelligence tests have played such a vital role in modern education. Intelligence tests are the stethescope of the teacher.

It is estimated that 1 to 2 per cent of the children of any country will be mentally deficient. When the intelligence of a child is so low that he cannot be entrusted to look after his own affairs he is said to be mentally deficient. All civilised states have made provision for the education of such in special schools. Intelligence tests are the recognised means of detecting mental deficiency. ✱

A good number of pupils in every class give grievous head ache to their teachers by being backward in their studies. It is common for such children to be called dullards, and regularly punished, often for no fault of theirs. The academic careers of many children have been blasted by mishandling at school. All backward children need not be dull. The causes of backwardness are many and varied. e.g. physical defects, specific mental disabilities, low intelligence, emotional maladjustment etc. To probe the causes of backwardness at school diagnostic tests are necessary. Many ~~xxxxxx~~ cases of failure at school can be cured by proper diagnosis and remedial measures. Diagnostic tests are an essential adjunct to education.

Vocational education has of late received an impetus. But the purpose of vocational education would be defeated, if young people are not guided to choose their vocations in harmony with their inborn aptidues. To help teachers to find out the vocational potentialities of children, aptitude tests have been used in all advanced countries.

If a physician damages the health of a patient by wrong treatment there is an uproar. If a teacher spoils the mental health of a child by foolish handling, nobody cares or even notices. A large number of our children are emotionally maladjusted. Many are problems to their parents and teachers. Many delinquents and

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93

and future criminals are made in our schools. For the mental health of the rising generation it is imperative that the state initiate an investigation of the problems of emotionally maladjusted children and scientific methods of solving them.

The only purpose for which examinations are used in our schools is for promotion from class to class. There is a variety of other uses to which examinations are put in advanced countries, eg. to compare the merits of different methods of school organisation and different techniques of teaching, for teachers to find out how far the pupils have followed them, for an inspector to measure the teaching efficiency of a school etc. For these purposes reliable, objective, and quick-scoring tests called standard attainment tests are required. That is the only way to transform the present capricious annual examinations striking anxiety and terror in children into a scientific and reliable instrument of daily use in the class room.

No state can run an education department on modern lines without standardised tests of attainments, intelligence and aptitudes. Scientific means of diagnosing and remedying intellectual and emotional ailments of children are a crying need of the day. To launch on universal compulsory education without the means of discovering mentally deficient children and remedying the disabilities of backward children would be a sure means of multiplying the inmates of lunatic asylums, probation schools and prisons.

Circulated to the Members of the Standing Advisory Board for Technical Education.

College of Engineering,
Guindy, Madras-15,
Dated: 5--2--1949.

SECRETARY,
Standing Advisory Board for
Technical Education.

To

The Members of the Board.

Copy to the Secretary to Govt, Edn. & P.H. Department.

8592/48A

E. P. H. (A)

The proceedings of the Bd.'s meeting on 7.2.49 maybe awaited, on receipt of which the papers can be recorded.

9.2.49

9/2/49

646

Same as on 8/ante

From		To
Rao Bahadur Lt.Col.S.Paul, B.E.,		The Members of the Standing
Principal & Secretary,		Advisory Board for Tech-
Standing Advisory Board for		nical Education.
Technical Education,		
College of Engineering,		
Guindy, MADRAS-15.		

ABTE/49 Dated: 29th January 1949.

Sir,

SUB: Fourth Meeting of the Standing Advisory Board for Technical Education.

The Fourth Meeting of the Standing Advisory Board for Technical Education will be held at 2-30 P.M. on Monday the 7th February 1949 in the Council Chamber, Fort St.George, Madras. The Honourable Minister for Education will preside. The Agenda for the Meeting is given below. I am to request you to make it convenient to attend the meeting.

A G E N D A.

(1) Items of the Recommendations of the Special Committee for shortening the courses of studies etc., that were not considered by the Board at its last meeting.

(2) Statistics of technical personnel required by the Province in the next 5 or 7 years.

(3) Opening of Science courses in the Arthur Hope College of Technology, Coimbatore.

(4) Examination and grant of Diploma to the students of the Overseer courses trained in the Engineering College, Guindy and the Polytechnics by a central body.

(5) The need for the continuance of the Technological Diploma Examination Board, in view of the constitution of the Standing Advisory Board for Technical Education.

(6) Conduct of prognostic tests in connection with selection of students for admission to Engineering Colleges.

(7) Any other matter permitted by the Chairman.

The Minutes of the last meeting of the Board held on 1st December 1948 will be sent in due course.

DEPUTY SECRETARY TO THE MADRAS LEGISLATURE
1 - FEB 1949
FORT ST. GEORGE

S. Paul

SECRETARY,
Standing Advisory Board for
Technical Education.

Copy to the Secretary, Madras Legislature Secretariat, Fort St.George, Madras for information.

96

(49) 97

Edn and P.H. Dept

T.M. by Post No. 7667 A-1/49 A Edn

dated 4.2.49

From

~~Asst~~ Secy to Govt, Edn & P.H. Dept

To The Principal, Eng. College, Guindy

DESM
DSM
4-2-49

Fourth meeting of the Standing Advisory Board for Tech. Edn on 7-2-49.
Ref your letter A-BTE/49 & 29.1.49.

In your letter cited you have stated that the meeting will be held in the Council Chamber, Fort St. George. The Council Chamber is under the control of the Hon'ble the President and if a meeting has to be held in it the prior approval of the Hon'ble the President has to be obtained. So in future before you send ~~notice~~ notices of such meetings please write to me in advance so that I may obtain the Hon'ble President's approval in time. I am taking steps to get the requisite approval for the meeting to be held on 7.2.49.

4/2/49.

DM
4/2/49

98

ABTE/49.

College of Engineering, Guindy,
Madras-15, Dated: 10--2--1949.

To

The Secretary to Government,
Education & Public Health Department,
Fort St.George, MADRAS.

10621

ASST. SECRETARY TO GOVERNMENT
EDUCATION AND PUBLIC HEALTH DEPT.
19 FEB 1949

Sir,

Sub: Fourth meeting of the Standing Advisory Board for Technical Education on 7th February 1949.

Ref: Your T.M.(by post) No.7667-A1/49 A-Edn. dated 4th February 1949.

I have noted your instructions contained in your above communication and shall in future contact you in advance before sending out notices of meetings with regard to the place of the meeting.

K. Paul
10/2/49
PRINCIPAL.

101 E.P.H.(A)

~~Memo~~ Letter No. 85920-5/48AEdn dated 22-3-49.

Sub: Standing Advisory Bd. for Techl. Edn.—
Meeting on 7-2-49—

The Principal, Engg. college, Guindy, is requested to state when the proceedings of the meeting of the Standing Advisory Bd. for Techl. Edn. on 7-2-49 may be expected.

14.3.49

To
The Principal, Engg.
College, Guindy.

(52) 103-E.P.H.(A)

Memo. No. 85920-7/48A Edn dated 25-4-49.

Subs: Techl. Edn.- Forming a separate Dept. with a Director at its head - Decision of the Standing Advisory Bd. for Techl. Edn.

In June 1948, The Standing Advisory Board for Techl. Edn. set up a committee to suggest measures to increase the efficiency of the Engg. Colleges. One of the recommendations made by that committee was that "Techl. Edn." should be constituted into a separate Dept. ~~under the Ministry of Edn. with a Director at its head~~ with a Director at its head (with the status of a head of Dept.). This Dept. was to coordinate Techl. Edn. in Engg. colleges, Polytechnics, Technical High Schools and Industrial Schools. The

P.T.O.

B 104

~~above~~ recommendation was accepted by a majority at the meeting of the Standing Advisory Bd. held on 1-12-48. The D.P.I. ~~remarks~~ and the D. of I.Sc. are requested to offer their remarks in the matter urgently.

14-4-49

18/4/49.

18/4/1949

para 10 on p 85-87 of.

To the D of I
" D. of I. Sc.

515

105

ABTE/49.

College of Engineering, Guindy,
Madras-15, Dated: 8th April 1949.

To

The Secretary to Government,
Education and Public Health Department,
Fort St.George,
MADRAS.

ASST. SECRETARY TO GOVERNMENT
EDUCATION AND PUBLIC HEALTH DEPT.
12 APR 19

Sub: Standing Advisory Board for Technical Education - Fourth meeting on 7th February 1949 - Minutes.

Ref: Your Memorandum No.85920-5/48 A, Education dated 22nd March 1949.

28084

I am enclosing herewith a copy of the Minutes of the Fourth meeting of Standing Advisory Board for Technical Education held on 7th February 1949. It would be seen from the Minutes that three separate Committees have been set up for specific purposes. The Chairman of these Committees, Sri N.Govindaraja Iyengar desired to proceed immediately with the business for which these Committees were appointed. Accordingly, the Proceedings and the Minutes of the meeting, which were in draft form were required by him to know the terms of reference and other details. These were therefore sent to him. Copies of the Minutes have now been taken from the original as soon as it was available and a copy of the same is sent herewith as required.

A. Paul
8/4/49
PRINCIPAL.

Enc.1.

Copy submitted to the Director of Public Instruction, Madras with two copies of the Minutes, for his information.

106

107

MINUTES OF THE FOURTH MEETING OF THE STANDING BOARD FOR TECHNICAL EDUCATION HELD AT 2-30 P.M. ON 7th FEBRUARY 1949 IN THE COUNCIL CHAMBER, FORT ST.GEORGE, MADRAS.

The Fourth meeting of the Standing Advisory Board for Technical Education was held at the Council Chamber, Fort St.George, Madras at 2-30 P.M. on Monday, the 7th February 1949. The following members were present.

1. Sri T.S.Avinashilingam Chettiar, Hon'ble Minister for Education CHAIRMAN.
2. Sri D.S.Reddi, Director of Public Instruction, Madras.
3. " A.R.Venkatachari, Chief Engineer (General).
4. Mr.W.H.Turner, Chief Engineer (Highways).
5. Sri N.Govindaraja Iyengar, Retired Chief Engineer (Special).
6. " G.Sundaram, Chief Engineer for Electricity.
7. " A.Viswanath, Principal, A.H.College of Technology, Coimbatore.
8. " V.H.Sadarangani, Principal, College of Engineering, Kakinada.
9. " T.M.S.Mani, Director of Industries and Commerce, Madras.
10. " K.K.Nambiar, Chairman, City Improvement Trust, Madras.
11. " S.Govindarajulu, Law College, Madras.
12. Dr. K.C.Chakko, Annamalai University, Annamalainagar.
13. Prof.M.S.Thacker, Indian Institute of Science, Bangalore.
14. Sri N.S.Varadachari, M.L.A., Government House, Madras.
15. " N.Ranga Reddi, M.L.C.
16. " Subramanyam, M. & S.M.Railway, Madras.
17. " R.Venkataswami Naidu, President, Mill Owners' Association, Coimbatore.
18. " Chunduru Venkatareddi, Bezwada.
19. " G.D.Naidu, United Motors, Coimbatore.
20. Lt.Col.S.Paul, Principal, College of Engineering, Guindy, SECRETARY.

Sri N.S.Krishnaswami Iyengar, Principal, College of Engineering, Anantapur was also present.

The Hon'ble Minister for Education in his opening speech reviewed the items on the Agenda and brought to the notice of the Board the special points for their consideration. A copy of the Hon'ble Minister's speech is enclosed herewith for reference.

(1) After the conclusion of the Hon'ble Minister's speech, item (1) of the Agenda was taken up. The main point for discussion was the shortening of the course and the Inter Universities Conference Resolution which stated:-

" (i) This Conference is of opinion that there should be uniformity in regard to the duration of the Engineering Degree course in the Universities.

(ii) This Conference is of opinion that the minimum period of training for a Degree in Engineering should be not less than four years, but during this course, periods of practical training may also be included. Should the practical training be not included or be not sufficient, an additional period of practical training of not less than 180 days should be required after the candidate has finished his four year Degree course.

(iii) This Conference is of opinion that both the Central and Provincial Governments and leading industrial concerns should afford all possible facilities for practical training to Engineering students of the University."

There was considerable discussion about this point and the following members of the Board expressed their views:- Mr.G.D.Naidu,

Contd.

Mr.G.Sundaram, Mr.V.H.Sadarangani, Dr.K.C.Chakko, Mr.C.Venkata Reddi, Lt.Col.S.Paul, Mr.N.Govindaraja Iyengar, Mr.A.Viswanath, Mr.A.R.Venkatachari, Prof.M.S.Thacker, Mr.T.M.S.Mani, Mr.N.S.Varadhachari. The Hon'ble Minister winding up the discussion suggested that the Inter University Board and other Universities may be addressed for necessary clarification about their views with regard to the three year course and the resolution of the Inter University Board and a Committee consisting of Mr.Govindaraja Iyengar, Mr.G.Sundaram and Col.Paul may be appointed for drafting a suitable letter to be sent to the Universities. The Board unanimously accepted this suggestion.

(2) The other items of recommendations of the Special Committee were taken up. The Board agreed that the post-graduate courses went together with the reduction of the Engineering courses from 4 to 3 years and the Board agreed to await the outcome of the correspondence suggested above.

Items IV, V, VI, VII, VIII and IX of the recommendations of the Special Committee, viz., 'Co-ordination between institutions and field developments', 'Cost involved", 'Contact between students, parents and staff', 'Equipment', 'Adequacy of teaching staff and Lectures by practising Engineers' respectively were generally accepted by the Board. ~~Items X, XI, XII and XIII of the recommendations of the Board.~~ Items X, XI, XII and XIII of the recommendations of the Special Committee, viz., 'Creation of a separate department of technical education', 'A Board of Technical Education', 'Power of the Board' respectively were already accepted by the Board in the last meeting of the Board held on 1st December 1948 and were not therefore considered.

Items XIV and XVI of the recommendations of the Special Committee, viz., 'Examinations' and 'Guaranteed appointments' respectively were accepted by the Board.

(3) The Hon'ble Minister for Education particularly referred to item XV of the report of the Special Committee which dealt with admissions. Special reference was made to the notes circulated by the Secretary and by Mr.Phillip in connection with the adoption of prognostic tests for students seeking admission to Engineering Colleges, which was item 6 of the Agenda for the meeting. There was considerable discussion on this subject in which Messrs. W.H.Turner, T.M.S.Mani, A.R.Venkatachari, G.Sundaram, A.Viswanath, Lt.Col. S.Paul, Messrs.G.D.Naidu, N.S.Varadhachari, S.Govindarajulu, N.Govindaraja Iyengar, Dr.K.C.Chakko, Messrs.Ranga Reddi and N.S.Krishnaswamy Iyengar took part. The Hon'ble Minister winding up the discussions suggested that a Committee consisting of the following be appointed to go into the details of these tests and to put up further recommendations to the Board. This was unanimously accepted by the Board.

1. Sri N.Govindaraja Iyengar. ... CHAIRMAN.
2. Sri G.Sundaram.
3. Lt.Col.S.Paul.
4. Sri S.Govindarajulu.
5. Dr.Boaz.
6. Mr.Johnson.

(4) Item (2) of the Agenda, viz., "STATISTICS OF TECHNICAL PERSONNEL REQUIRED IN THE PROVINCE" was then taken up for consideration. Sri A.R.Venkatachari, Chairman of the Committee appointed for this purpose reviewed the work done by the Committee and stated in conclusion that taking everything into consideration, the supply of technical personnel and the demand seemed to be about the same at the present moment, and that the existing arrangements seemed to be adequate except perhaps for the Artisan class. The Board accepted the figures given by Mr.Venkatachari and resolved that this may be recorded.

(5) Item (3) of the Agenda, viz., "OPENING OF SCIENCE COURSES IN THE ARTHUR HOPE COLLEGE OF TECHNOLOGY, COIMBATORE" was next taken up for consideration.

Contd.

After some discussion, the Board agreed that the question might be examined not merely with regard to the Arthur Hope College of Technology, but with regard to all the Engineering Colleges in the Presidency. Messrs. A.Viswanath, Col.Paul, and Mr.T.M.S.Mani took part in the discussion. The Board approved the suggestion that wherever possible, B.Sc. courses and courses in Applied Science may be instituted in Engineering Colleges.

Items IV and V of the Agenda, viz., "EXAMINATION AND GRANT OF DIPLOMA TO THE STUDENTS OF THE OVERSEER COURSES TRAINED IN THE ENGINEERING COLLEGE, GUINDY AND THE POLYTECHNICS BY A CENTRAL BODY", and THE NEED FOR THE CONTINUANCE OF THE TECHNOLOGICAL DIPLOMA EXAMINATION BOARD IN VIEW OF THE CONSTITUTION OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION" were then taken up for consideration. As the two items were more or less allied, the two were taken up together. In the discussions that followed, Messrs. V.H.Sadarangani, Col.Paul, Messrs.A.R.Venkatachari, T.M.S.Mani, G.Sundaram took part. The Board approved the suggestion that till the proposed Board of Technical Education came into existence, the College of Engineering, Guindy may hold its own examination for all types of Civil Engineering Diplomas, including Overseers and the Technological Diploma Examination Board may hold examinations for other types of diploma holders. At the suggestion of the Hon'ble Minister, it was agreed that it was desirable that these two types of examinations should be put under the same Board as soon as possible. With regard to the continuance of the Technological Diploma Examination Board, it was agreed that until definite orders are passed by the Government on the recommendation of the Board with regard to the creation of a separate Board of Technical Education, the present Technological Diploma Examination Board might be allowed to continue.

Before winding up the meeting, the Hon'ble Minister made special mention of the facilities to be offered for brilliant students to get the highest possible form of technical education in the Presidency. Arising out of this, the conduct of evening classes for upgrading diploma-holders of technical institutions and the facilities now offered were discussed at length. Messrs. G.Sundaram, Dr.K.C.Chakko, Col.Paul, Messrs.N.S.Varadachari, T.M.S.Mani, and K.K.Nambiar took part in the discussion and it was unanimously agreed that a Special Committee should be appointed to go into this question and submit concrete proposals to the Board for providing every possible facility for permitting students to qualify themselves to the highest possible degree available in the Presidency. Accordingly, the following were constituted as a Special Committee for this purpose.

1. Sri N.Govindaraja Iyengar. ... CHAIRMAN.
2. Prof.M.S.Thacker.
3. Sri K.K.Nambiar.
4. Sri T.M.S.Mani.
5. Sri G.Sundaram.
6. Sri C.V.Reddi.
7. Lt.Col.S.Paul.

The Hon'ble Minister then thanked the members present for their valuable suggestions in arriving at the above decisions.

The meeting then terminated at about 5 P.M.

College of Engineering, Guindy,
MADRAS-15. Dated: 7th April 1949.

To
The Members of the Board.

S. Paul
SECRETARY,
Standing Advisory Board for
Technical Education.

(57)

SPEECH DELIVERED BY THE HON'BLE SRI.T.S.AVINASHILINGAM CHETTIAR, MINISTER FOR EDUCATION AND CHAIRMAN, STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION AT THE FOURTH OF THE BOARD HELD ON 7th FEBRUARY 1949.

****

Let me welcome you to this adjourned meeting of the Technical Education Board. I would like to say just a few words by way of introduction. First of these is a matter over which this Board has already expressed its opinion and that iw with regard to the substitution of a three years' course instead of the 4 years' course for the present B.E. Degree Examination. Since we met last, there has been an Inter-Universities Conference. The Standing Committee of the Sixth Quinquennial Inter-Universities Conference has passed the following resolution:

(i) This Conference is of opinion that there should be uniformity in regard to the duration of the Engineering Degree course in the Universities.

(ii) This Conference is of opinion that the ~~xxxx~~ minimum period of training for a Degree in Engineering should be not less than four years, but during this course, periods of practical training may also be included. Should the practical training be not included or be not sufficient an additional period of practical training of not less than 180 days should be required after the candidate has finished his four year Degree course.

(iii) This Conference is of opinion that both the Central and Provincial Governments and leading industrial concerns should afford all possible facilities for practical training to Engineering students of the University.

It may be seen from the above resolution that this Conference has opined that including the period of practical training, the Engineering course should be not less than 4 years. This may be interpreted to mean in two ways; either that practical training may be interspersed in the middle and the whole period of the Engineering course may be 4 years or that the academic Engineering course to be spent in the College may be for 3 years and there may be a year of practical training and field work, outside the College, after which alone the Degree of Bachelor of Engineering may be given. All of us are well aware of the great need and necessity for providing practical training for our Engineers. And this is in no way against the recommendation of this Board. The University, I am sure, will consider all points of view and do what is best in national interest and consistent with efficiency. The Standing Committee has rightly emphasised also that facilities for practical training to Engineering students should be provided by industrial concerns and by the Central and Provincial Governments. You will be glad to know that the Government ~~xx~~ are contemplating the introduction of an Apprenticeship Bill so that power may be taken to provide practical training for our students. This Bill was considered by the Provincial Advisory Board of Education and by the relevant departments of Government. In the light of their remarks the Director of Public Instruction has been asked to suggest the necessary amendments to the Bill. The Govt. hope that if the University provides for a compulsory period of practical training for one year after the three years' course, the Govt. will be able to bring it into effect by the passing of the Apprenticeship Bill in the legislature.

The Technical Man Power Committee appointed by the Government of India has under its definition of technical man-power rightly included not only people undergoing technical education such as Engineering but also people learning the basic sciences and those who are doing research in these basic sciences. It cannot be gainsaid that a proper grounding of the basic sciences is of the utmost importance for the development of technical education and it is for that reason that the basic sciences are receiving more and more attention in the present day. A proposal has been made that with the

Contd.

help of the large laboratories that are being maintained in the Engineering Colleges, courses in these basic sciences should also be opened in the Engineering Colleges. It is expected that not only will this afford more facilites for students wanting to undergo science courses but this inter-mingling of science and Engineering students will also help in disseminating a higher standard of science in the Engineering Colleges.

It is necessary that we should keep pace with the rest of the world in this great field of scientific advancement. And it is for this reason that the Government are taking steps to reorganise the Presidency College as an institution of higher training and research. As you may be aware, a Committee has been set up with Sir C.V.Raman as its Chairman and Dr.Lakshmanaswami Mudaliar and others as members to suggest ways and means for this purpose. I have had a preliminary talk with the distinguished Chairman and members of the Committee and the Govt. expect that the Committee will submit its report by the middle of this month. It is expected that they will give their suggestions indicating the stages in which this transformation of the Presidency College can be efficiently brought about within a reasonable period of time. You will also be glad to know that necessary funds are being provided in the next year's budget to take the first steps that may be necessary in the next year for the conversion of the Presidency College into an institution of higher learning and research. The levelling up of the Presidency College, I hope, will also contribute towards raising the level and quality of attainments in other colleges in the province also.

While we are discussing the Engineering courses and the ways and means to increase the output of Engineers in this Province, we should not fail to appreciate the need for a second grade type of technicians of both of the Artisan and the Overseer type. In the past we had neglected this type of technical workers with the result we had many Engineers and not enough technical personnel to assist them to get the work done. And it is for this reason, that the Govt. have taken up on hand the matter of producing as many Overseers as may be necessary for the various projects in this Province. In some of the Polytechnics, the L.C.E. courses have been substituted by Overseer courses. In some of our Engineering Colleges, further provision has been made to train a large number of Overseers. It is also the intention of Govt. that, apart from the common pedestrian course, the Bachelor of Engineering that is at present provided by the Engineering Colleges, a higher grade course which will lead also to higher research in Engineering should also be provided in our Engineering Colleges. The first step in that direction will be the opening of a course in M.Sc. in Engineering as has been proposed in the report of the Expert Committee. But as has been made clear in my speech on the last occasion, for the present, provision of this M.Sc. course will largely depend upon the other suggestion that has been made by the Expert Committee, that of revising the 4 years' Engineering course into one of three years. This and some other subjects are coming before you today and the Govt. are awaiting with interest your advice in this matter.

Before closing, I would only like to add that whatever we are trying to do in this matter of the reorganisation of technical education should be from the point of view of increasing the efficiency of our people. The future of our country depends upon the number of well-equipped and well-trained technical personnel that we may possess. Apart from the knowledge, it is essential that they should also be trained from the very beginning to work with integrity, perseverance and devotion. Our prosperity in peace and our success in war depends upon the high quality of our technical personnel and it is this great ideal which we should keep always in our minds while considering the reorganisation of technical education. I have no doubt that apart from the Govt. agencies, the private industrialists and the public will also help in the attainment of this great ideal.

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Same as Page 107-115 ante
Secy. (Edn. & P.H.)

11/4/49

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MINUTES OF THE FOURTH MEETING OF THE STANDING BOARD FOR TECHNICAL EDUCATION HELD AT 2-30 P.M. ON 7th FEBRUARY 1949 IN THE COUNCIL CHAMBER, FORT ST.GEORGE, MADRAS.

12 APR 1949
EDUCATION AND PUBLIC HEALTH DEPARTMENT
12 APR 19
EDUCATION AND PUBLIC HEALTH
28708

The Fourth meeting of the Standing Advisory Board for Technical Education was held at the Council Chamber, Fort St.George, Madras at 2-30 P.M. on Monday, the 7th February 1949. The following members were present.

59

1. Sri T.S.Avinashilingam Chettiar, Hon'ble Minister for Education — CHAIRMAN.
2. Sri D.S.Reddi, Director of Public Instruction, Madras.
3. " A.R.Venkatachari, Chief Engineer (General).
4. Mr.W.H.Turner, Chief Engineer (Highways).
5. Sri N.Govindaraja Iyengar, Retired Chief Engineer (Special).
6. " G.Sundaram, Chief Engineer for Electricity.
7. " A.Viswanath, Principal, A.H.College of Technology, Coimbatore.
8. " V.H.Sadarangani, Principal, College of Engineering, Kakinada.
9. " T.M.S.Mani, Director of Industries and Commerce, Madras.
10. " K.K.Nambiar, Chairman, City Improvement Trust, Madras.
11. " S.Govindarajulu, Law College, Madras.
12. Dr. K.C.Chakko, Annamalai University, Annamalainagar.
13. Prof.M.S.Thacker, Indian Institute of Science, Bangalore.
14. Sri N.S.Varadachari, M.L.A., Government House, Madras.
15. " N.Ranga Reddi, M.L.C.
16. " Subramanyam, M. & S.M.Railway, Madras.
17. " R.Venkataswami Naidu, President, Mill Owners' Association, Coimbatore.
18. " Chunduru Venkatareddi, Bezwada.
19. " G.D.Naidu, United Motors, Coimbatore.
20. Lt.Col.S.Paul, Principal, College of Engineering, Guindy, SECRETARY.

Sri N.S.Krishnaswami Iyengar, Principal, College of Engineering, Anantapur was also present.

The Hon'ble Minister for Education in his opening speech reviewed the items on the Agenda and brought to the notice of the Board the special points for their consideration. A copy of the Hon'ble Minister's speech is enclosed herewith for reference.

After the conclusion of the Hon'ble Minister's speech, item (1) of the Agenda was taken up. The main point for discussion was the shortening of the course and the Inter Universities Conference Resolution which stated:-

" (i) This Conference is of opinion that there should be uniformity in regard to the duration of the Engineering Degree course in the Universities.

(ii) This Conference is of opinion that the minimum period of training for a Degree in Engineering should be not less than four years, but during this course, periods of practical training may also be included. Should the practical training be not included or be not sufficient, an additional period of practical training of not less than 180 days should be required after the candidate has finished his four year Degree course.

(iii) This Conference is of opinion that both the Central and Provincial Governments and leading industrial concerns should afford all possible facilities for practical training to Engineering students of the University."

There was considerable discussion about this point and the following members of the Board expressed their views:- Mr.G.D.Naidu,

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Mr.G.Sundaram, Mr.V.H.Sadarangani, Dr.K.C.Chakko, Mr.C.Venkata Reddi, Lt.Col.S.Paul, Mr.N.Govindaraja Iyengar, Mr.A.Viswanath, Mr.A.R.Venkatachari, Prof.M.S.Thacker, Mr.T.M.S.Mani, Mr.N.S.Varadhachari. The Hon'ble Minister winding up the discussion suggested that the Inter University Board and other Universities may be addressed for necessary clarification about their views with regard to the three year course and the resolution of the Inter University Board and a Committee consisting of Mr.Govindaraja Iyengar, Mr.G.Sundaram and Col.Paul may be appointed for drafting a suitable letter to be sent to the Universities. The Board unanimously accepted this suggestion.

The other items of recommendations of the Special Committee were taken up. The Board agreed that the post-graduate courses went together with the reduction of the Engineering courses from 4 to 3 years and the Board agreed to await the outcome of the correspondence suggested above.

Items IV, V, VI, VII, VIII and IX of the recommendations of the Special Committee, viz., 'Co-ordination between institutions and field developments', 'Cost involved", 'Contact between students, parents and staff', 'Equipment', 'Adequacy of teaching staff and Lectures by practising Engineers' respectively were generally accepted by the Board. Items X, XI, XII and XIII of the recommendations of the Board. Items X, XI, XII and XIII of the recommendations of the Special Committee, viz., 'Creation of a separate department of technical education', 'A Board of Technical Education', 'Power of the Board' respectively were already accepted by the Board in the last meeting of the Board held on 1st December 1948 and were not therefore considered.

Items XIV and XVI of the recommendations of the Special Committee, viz., 'Examinations' and 'Guaranteed appointments' respectively were accepted by the Board.

The Hon'ble Minister for Education particularly referred to item XV of the report of the Special Committee which dealt with admissions. Special reference was made to the notes circulated by the Secretary and by Mr.Phillip in connection with the adoption of prognostic tests for students seeking admission to Engineering Colleges, which was item 6 of the Agenda for the meeting. There was considerable discussion on this subject in which Messrs. W.H.Turner, T.M.S.Mani, A.R.Venkatachari, G.Sundaram, A.Viswanath, Lt.Col. S.Paul, Messrs.G.D.Naidu, N.S.Varadhachari, S.Govindarajulu, N.Govindaraja Iyengar, Dr.K.C.Chakko, Messrs.Ranga Reddi and N.S.Krishnaswamy Iyengar took part. The Hon'ble Minister winding up the discussions suggested that a Committee consisting of the following be appointed to go into the details of these tests and to put up further recommendations to the Board. This was unanimously accepted by the Board.

1. Sri N.Govindaraja Iyengar. ... CHAIRMAN.
2. Sri G.Sundaram.
3. Lt.Col.S.Paul.
4. Sri S.Govindarajulu.
5. Dr.Boaz.
6. Mr.Johnson.

Item (2) of the Agenda, viz., "STATISTICS OF TECHNICAL PERSONNEL REQUIRED IN THE PROVINCE" was then taken up for consideration. Sri A.R.Venkatachari, Chairman of the Committee appointed for this purpose reviewed the work done by the Committee and stated in conclusion that taking everything into consideration, the supply of technical personnel and the demand seemed to be about the same at the present moment, and that the existing arrangements seemed to be adequate except perhaps for the Artisan class. The Board accepted the figures given by Mr.Venkatachari and resolved that this may be recorded.

Item (3) of the Agenda, viz., "OPENING OF SCIENCE COURSES IN THE ARTHUR HOPE COLLEGE OF TECHNOLOGY, COIMBATORE" was next taken up for consideration.

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After some discussion, the Board agreed that the question might be examined not merely with regard to the Arthur Hope College of Technology, but with regard to all the Engineering Colleges in the Presidency. Messrs. A.Viswanath, Col.Paul, and Mr.T.M.S.Mani took part in the discussion. The Board approved the suggestion that wherever possible, B.Sc. courses and courses in Applied Science may be instituted in Engineering Colleges.

Items IV and V of the Agenda, viz., "EXAMINATION AND GRANT OF DIPLOMA TO THE STUDENTS OF THE OVERSEER COURSES TRAINED IN THE ENGINEERING COLLEGE, GUINDY AND THE POLYTECHNICS BY A CENTRAL BODY", and THE NEED FOR THE CONTINUANCE OF THE TECHNOLOGICAL DIPLOMA EXAMINATION BOARD IN VIEW OF THE CONSTITUTION OF THE STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION" were then taken up for consideration. As the two items were more or less allied, the two were taken up together. In the discussions that followed, Messrs. V.H.Sadarangani, Col.Paul, Messrs.A.R.Venkatachari, T.M.S.Mani, G.Sundaram took part. The Board approved the suggestion that till the proposed Board of Technical Education came into existence, the College of Engineering, Guindy may hold its own examination for all types of Civil Engineering Diplomas, including Overseers and the Technological Diploma Examination Board may hold examinations for other types of diploma holders. At the suggestion of the Hon'ble Minister, it was agreed that it was desirable that these two types of examinations should be put under the same Board as soon as possible. With regard to the continuance of the Technological Diploma Examination Board, it was agreed that until definite orders are passed by the Government on the recommendation of the Board with regard to the creation of a separate Board of Technical Education, the present Technological Diploma Examination Board might be allowed to continue.

Before winding up the meeting, the Hon'ble Minister made special mention of the facilities to be offered for brilliant students to get the highest possible form of technical education in the Presidency. Arising out of this, the conduct of evening classes for upgrading diploma-holders of technical institutions and the facilities now offered were discussed at length. Messrs. G.Sundaram, Dr.K.C.Chakko, Col.Paul, Messrs.N.S.Varadachari, T.M.S.Mani, and K.K.Nambiar took part in the discussion and it was unanimously agreed that a Special Committee should be appointed to go into this question and submit concrete proposals to the Board for providing every possible facility for permitting students to qualify themselves to the highest possible degree available in the Presidency. Accordingly, the following were constituted as a Special Committee for this purpose.

1. Sri N.Govindaraja Iyengar. ... CHAIRMAN.
2. Prof.M.S.Thacker.
3. Sri K.K.Nambiar.
4. Sri T.M.S.Mani.
5. Sri G.Sundaram.
6. Sri C.V.Reddi.
7. Lt.Col.S.Paul.

The Hon'ble Minister then thanked the members present for their valuable suggestions in arriving at the above decisions.

The meeting then terminated at about 5 P.M.

S. Paul

College of Engineering, Guindy,
MADRAS-15. Dated: 7th April 1949.

SECRETARY,
Standing Advisory Board for
Technical Education.

To

The Members of the Board.

Copy submitted to the Hon'ble Minister for Education, Fort St. George Madras and Chairman, Madras

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SPEECH DELIVERED BY THE HON'BLE SRI.T.S.AVINASHILINGAM CHETTIAR, MINISTER FOR EDUCATION AND CHAIRMAN, STANDING ADVISORY BOARD FOR TECHNICAL EDUCATION AT THE FOURTH OF THE BOARD HELD ON 7th FEBRUARY 1949.

****

Let me welcome you to this adjourned meeting of the Technical Education Board. I would like to say just a few words by way of introduction. First of these is a matter over which this Board has already expressed its opinion and that iw with regard to the substitution of a three years' course instead of the 4 years' course for the present B.E. Degree Examination. Since we met last, there has been an Inter-Universities Conference. The Standing Committee of the Sixth Quinquennial Inter-Universities Conference has passed the following resolution:

(i) This Conference is of opinion that there should be uniformity in regard to the duration of the Engineering Degree course in the Universities.

(ii) This Conference is of opinion that the ~~maxx~~ minimum period of training for a Degree in Engineering should be not less than four years, but during this course, periods of practical training may also be included. Should the practical training be not included or be not sufficient an additional period of practical training of not less than 180 days should be required after the candidate has finished his four year Degree course.

(iii) This Conference is of opinion that both the Central and Provincial Governments and leading industrial concerns should afford all possible facilities for practical training to Engineering students of the University.

It may be seen from the above resolution that this Conference has opined that including the period of practical training, the Engineering course should be not less than 4 years. This may be interpreted to mean in two ways; either that practical training may be interspersed in the middle and the whole period of the Engineering course may be 4 years or that the academic Engineering course to be spent in the College may be for 3 years and there may be a year of practical training and field work, outside the College, after which alone the Degree of Bachelor of Engineering may be given. All of us are well aware of the great need and necessity for providing practical training for our Engineers. And this is in no way against the recommendation of this Board. The University, I am sure, will consider all points of view and do what is best in national interest and consistent with efficiency. The Standing Committee has rightly emphasised also that facilities for practical training to Engineering students should be provided by industrial concerns and by the Central and Provincial Governments. You will be glad to know that the Government ~~xx~~ are contemplating the introduction of an Apprenticeship Bill so that power may be taken to provide practical training for our students. This Bill was considered by the Provincial Advisory Board of Education and by the relevant departments of Government. In the light of their remarks the Director of Public Instruction has been asked to suggest the necessary amendments to the Bill. The Govt. hope that if the University provides for a compulsory period of practical training for one year after the three years' course, the Govt. will be able to bring it into effect by the passing of the Apprenticeship Bill in the legislature.

The Technical Man Power Committee appointed by the Government of India has under its definition of technical man-power rightly included not only people undergoing technical education such as Engineering but also people learning the basic sciences and those who are doing research in these basic sciences. It cannot be gainsaid that a proper grounding of the basic sciences is of the utmost importance for the development of technical education and it is for that reason that the basic sciences are receiving more and more attention in the present day. A proposal has been made that with the

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help of the large laboratories that are being maintained in the Engineering Colleges, courses in these basic sciences should also be opened in the Engineering Colleges. It is expected that not only will this afford more facilites for students wanting to undergo science courses but this inter-mingling of science and Engineering students will also help in disseminating a higher standard of science in the Engineering Colleges.

It is necessary that we should keep pace with the rest of the world in this great field of scientific advancement. And it is for this reason that the Government are taking steps to reorganise the Presidency College as an institution of higher training and research. As you may be aware, a Committee has been set up with Sir C.V.Raman as its Chairman and Dr.Lakshmanaswami Mudaliar and others as members to suggest ways and means for this purpose. I have had a preliminary talk with the distinguished Chairman and members of the Committee and the Govt. expect that the Committee will submit its report by the middle of this month. It is expected that they will give their suggestions indicating the stages in which this transformation of the Presidency College can be efficiently brought about within a reasonable period of time. You will also be glad to know that necessary funds are being provided in the next year's budget to take the first steps that may be necessary in the next year for the conversion of the Presidency College into an institution of higher learning and research. The levelling up of the Presidency College, I hope, will also contribute towards raising the level and quality of attainments in other colleges in the province also.

While we are discussing the Engineering courses and the ways and means to increase the output of Engineers in this Province, we should not fail to appreciate the need for a second grade type of technicians of both of the Artisan and the Overseer type. In the past we had neglected this type of technical workers with the result we had many Engineers and not enough technical personnel to assist them to get the work done. And it is for this reason, that the Govt. have taken up on hand the matter of producing as many Overseers as may be necessary for the various projects in this Province. In some of the Polytechnics, the L.C.E. courses have been substituted by Overseer courses. In some of our Engineering Colleges, further provision has been made to train a large number of Overseers, It is also the intention of Govt. that, apart from the common pedestrian course, the Bachelor of Engineering that is at present provided by the Engineering Colleges, a higher grade course which will lead also to higher research in Engineering should also be provided in our Engineering Colleges. The first step in that direction will be the opening of a course in M.Sc. in Engineering as has been proposed in the report of the Expert Committee. But as has been made clear in my speech on the last occasion, for the present, provision of this M.Sc. course will largely depend upon the other suggestion that has been made by the Expert Committee, that of revising the 4 years' Engineering course into one of three years. This and some other subjects are coming before you today and the Govt. are awaiting with interest your advice in this matter.

Before closing, I would only like to add that whatever we are trying to do in this matter of the reorganisation of technical education should be from the point of view of increasing the efficiency of our people. The future of our country depends upon the number of well-equipped and well-trained technical personnel that we may possess. Apart from the knowledge, it is essential that they should also be trained from the very beginning to work with integrity, perseverance and devotion. Our prosperity in peace and our success in war depends upon the high quality of our technical personnel and it is this great ideal which we should keep always in our minds while considering the reorganisation of technical education. I have no doubt that apart from the Govt. agencies, the private industrialists and the public will also help in the attainment of this great ideal.

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K O P

DIRECTOR OF PUBLIC INSTRUCTION
MADRAS
11 MAY 1949

Edn & P.H. Depts (C)

Endt 28708-C1/49-1 Edn Dt 9/5/49.

Referred to the Director of Public Instruction for remarks.

for Asst Secretary to Govt
9/5/49

To

The Director of Public Instruction.

EDUCATION DEPARTMENT.

C1 / 1 (61) 127

From
The Director of Public Instruction,
M A D R A S.

To
The Secretary to Government,
Education and Public Health Department, Fort St. George,
M A D R A S.

R.C.No.1649-K2/47 dated 20th May 1949.

ASST. SECRETARY TO GOVERNMENT
20 MAY 1949
EDUCATION AND PUBLIC

Sir,

Sub:- Standing Advisory Board for Technical Education- Minutes of the meeting held on 7-2-49.
Ref:- Government Endorsement No.28708-C1/49-1, Education, dated 9-5-49.

In submitting herewith the Government Endorsement referred to above, referring to me for remarks a copy of the minutes of the meeting of the Standing Advisory Board for Technical Education held on 7-2-49, I have the honour to invite the attention of Government to their Memo. No.85920-7/48-A Education dated 25-4-49 regarding the proposal for the constitution of a separate Department for Technical Education in the Province and also to Memo No.53890-11/45-A Education dated 2-5-49 regarding the opening of science courses in Engineering Colleges wherever possible. The remarks of the Principals of Engineering Colleges have been called for on both the proposals and a report will be submitted to Government in due course. The resolutions of the Board on items (1), (2) and (IV) and (V) do not call for any remarks.

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28/5/49
The report from may be awaited

Yours faithfully,

For Director of Public Instruction.

KVS. 30/5/49

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R.C.No.1649 K2/47

Office of the
Director of Public Instruction
Madras, dated, 15th July 1949.

From

The Director of Public Instruction
Madras.

To

The Secretary to Government
Education and Public Health Department
Fort St. George, Madras.

ASSISTANT SECRETARY TO GOVERNMENT
20 JUL 1949
EDUCATION AND PUBLIC HEALTH DEPARTMENT

Sir,

Subject:- TECHNICAL EDUCATION -- Forming a separate Department with Director at its head -- Decision of the Standing Advisory Board for Technical Education.

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Reference:- Govt. Memo. No.85920-7/48-A Edn., dated 25--4--1949.

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With reference to the Government Memo referred to above, I called for the considered opinion of the Principals of the four Government Colleges in the matter. The Principals of the Engineering College at Coimbatore, Kadnada and Anantapur are unanimously of opinion that there should be a separate department for all technical education in the Province under a Director of its own. I am enclosing herewith a copy of letter No.3-179 A/49 dated 26-5-49 from the Principal, College of Engineering Guindy, who holds a slightly different views so far as technical education at the collegiate stage is concerned.

2. There may be some definite advantages if all technical education from the Industrial School to the Technical Colleges come under one separate Department, but there is also the possibility of a certain amount of confusion of objectives arising. If this contingency occurs, the consequences will be as prophesied by Col.Paul. Principal, College of Engineering, Guindy,

3. On the other hand it has to be admitted that a separate Director of Technical Education would be in a position to exercise better control over Technical Colleges. Unified control over all grades of Technical Education will secure better co-ordination between one category of schools and another i.e. industrial schools and polytechnics, in the planning of the courses of studies etc. Similarly in the purchase of equipment etc., in planning improvements to the existing colleges and even in regard to the opening of new courses, a Technical Director can be of far greater use than the Director of Public Instruction.

Yours faithfully

For Director of Public Instruction.

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Copy of letter Roc.No.3-179 A/49 dated 26th May 1949 of the Principal, College of Engineering, Guindy, Madras 15, to the Director of Public Instruction, Madras.

Ref:- Your letter Rc.No.1649-K2/47 dated 13-5-49 regarding formation of a separate department of Technical Education.

There are some very important fundamental issues raised in the recommendation of the Standing Advisory Board for Technical Education that it requires a careful review. The recommendation contemplates:-

(i) The separation of Technical Education from Education (General) under a separate Director of Technical Education.
(2) The Co-ordination of all Technical Education under one head which is now carried out under different agencies.
(3) The creation of a Board of Technical Education.

2. At the present memeht Technical Education of the Collegiate Standard is under the Director of Public Instruction. Technical Education of the Poly-technic Standard and Industrial Schools is under the Director of Industries. In the meeting of the Standing Advisory Board for Technical Education, the Director of Industries very strongly urged that the conduct of the Poly-Technics and the Industrial schools may continue under the Director of Industries. Unlike any other head of Department, the Director of Industries is closely allied not only to Government Industries but also to aided and purely private Industries and if the candidates turned out from the Poly-Technics are to manv these industries and play a leading part in the Industrialisation of this Province, it is necessary that the conduct of the Poly-Technics and Industrial schools should be left in the hands of the Director of Industries.

3. The Administration of Technical Education of the Collegiate Standard has been vested with the Director of Public Instruction. All matters however connected with the courses of study, syllabus and the development of these courses have been carried by the University Authorities, who have vested their powers to a Faculty of Engineering and Board of Studies. The University lays down its policy for these courses with reference to decisions arrived at by the Inter Universities Board and also in confirmity with the Standard and details of courses conducted in Universities all over the world. The creation of a separate Technical Board might complicate matters at the present time when important decisions of far reaching consequences are being considered.

4. The clubbing together of Technical Education of the Collegiate standard and Poly-technic Standard might be a dangerous experiment. If carried out, it might result in the downgrading of the Collegiate education or the upgrading of the Poly-technic Education to a theoretically high standard. The criticism has always been levelled that India produces Technicians who are good as far as book knowledge goes but who lack a practical background, when asked to take charge of works. There is a tendency for the Poly-Technics to copy the type of instruction given to Engineering students. On the other hand, the Poly-technics should aim at giving the students a more practical exposition of the subjects. The clubbing together of these two types of Technical Institutions would aggravate this trouble and would in no way lessen the same.

5. The ~~appropriation~~ seperation of Technical Education from Education

proper has to be examined from all aspects. In U.S.A. and U. K. it is an accepted fact that even the Education of Engineering is broad based and that subjects like, Humanities, Economics etc., are also form part of their study. When the trend of thought in these advanced coutries follows these lines, to separate Technical Education from Education proper, would not be the right course to be adopted. Besides Education of all types is being considered from all aspects in the present set up. When conditions are not yet stabilised, it would be inadvisable to introduce a further change which would cause serious complications in the finances of the Province, especially at a time when every consideration has to be taken to limit the expenditure to the minimum. The financial implications of Technical courses are so heavy that unless they are viewed in the right prospective with education as a whole, it is likely that an independant Director with his heavy requirements, even if moderated at higher levels, would cause an inroad into the Provincial Exchequer to the detriment of the Educational needs as a whole.

6. Co-ordination of Technical Education at all levels is necessary. This co-ordination can be attained by the Standing Advisory Board for Technical Education or by a smaller representative body. The opening of four Engineering Colleges in this Presidency might require a Technical Deputy Director to advise the Director of Public Instruction in matters relating to the adequacy of staff, equipment and other points connected with the various Colleges. For the reasons already stated above, it is considered inadvisable at the present time to form a separate Board of Technical Education under a Director of Technical Education. The present arrangements of the Technical Education of the Collegiate standard to come under the Director of Public Instruction and the Poly-technics and the Industrial schools to come under the Director of Industries may be allowed to stand. If considered necessary, the post of a Deputy Director of Tenical Training may be created to assist the Engineering Colleges in the Presidency.

(sd .).....
Principal.

/True Copy/

For Director of Public Instruction.

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proper lab to be examined from all aspects. In U.S.A. and U.K. it is an accepted fact that even the education of Engineering is broad based and that subjects like, Humanities, Economics etc., are also form part of their study. When the trend of thought in these advanced countries follows these lines, to separate technical education from education proper, would not be the right course to be adopted. Besides education on all types is being considered from all aspects in the present set up which conditions are not yet stabilised, it would be inadvisable to introduce a further change which would cause serious complications in the finances of the Province, especially at a time when every consideration has to be given to limit the expenditure to the minimum. The financial implications of Technical courses are so heavy that unless they are viewed in the right prospective with education as a whole, it is likely that an independent Director with his heavy requirements, even if moderated at higher levels, would cause an inroad into the Provincial Exchequer to the detriment of the educational needs as a whole.

b. Co-ordination of Technical Education at all levels is necessary. This co-ordination can be attained by the Statutory Body for Technical Education or by a smaller representative body. The opening of four Engineering Colleges in this Presidency might require a Technical Deputy Director to advise the Director of Public Instruction in matters relating to the adequacy of staff, equipment and ~~xxxxx xxx~~ other points connected with the various Colleges. For the reasons already stated above, it is considered inadvisable at the present time to form a separate board of Technical Education under a Director of Technical Education. The present arrangements of the Technical Education or the Collegiate standard to come under the Director of Public Instruction and the Poly-technics and the Industrial schools to come under the Director of Industries may be allowed to stand. If considered necessary, the post of a Deputy Director of Technical Training may be created to assist in the Engineering Colleges in the Presidency.

.....(sd.)
Principal.

/True Copy/

for Director of Public Instruction.

(136) 135 E-PH-(A)

Memo. No. 85920-8/48 Ed dated 30-7-49.

Sub: Techl. Edn. - Forming a separate Dept with a Director at its head - Decisions of the Standing Advisory Bd. for Techl. Edn from the D.P.I. No. 1649 K2/47 d. 15.7.49.

The D. of I. & C. is requested to expedite his reply to Memo. No. 85920-7/48 Ed. dt. 25.4.49.

P. 93-104 ✓

To the D. of I. & C.
Copy to the D.P.I.

DM
30/7/49

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Industries & Commerce Department.

A (69) 186

From
Sri P. Govinda Menon, B.E.,
Director of Industries &
Commerce, Madras 5.

To
The Joint Secretary to Government,
Education and Public Health Department,
Fort St. George, Madras.

-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-v-

No. 5055-C.3/47 dated the 28th July, 1949.

Sir,

Sub:-- Technical Education--Forming a separate department with a Director at its head--Decision of the Standing Advisory Board for Technical Education.

Ref:-- Government Memorandum No.85920-7/48-A, Education dated 25-4-49.

****

The Committee, set up by the Standing Advisory Board for Technical Education for suggesting measures to increase the efficiency of the Engineering colleges, seems to have recommended by a majority vote--that Technical Education should be constituted into a separate Department under the Ministry of Education with a Director at its head, who will coordinate Technical Education in engineering colleges, polytechnics, technical high schools and industrial schools. Successive Directors of Industries were definitely against such a proposal. In this connection, I invite a reference to this office letter No. 5475-E.3./46 dated 16--1--47 in reply to Government Memorandum No. 51354-A/46-5 Education, dated 27--12--46 (copy enclosed) in which Mr. Khaleeli, the then Director of Industries and Commerce has definitely expressed himself against the suggestion of separating the function of technical education from the Department of Industries and Commerce. The next Director, Sri M.T. Raju, I.C.S., also held that "the twin activities of the Department (viz.,) Technical Education and Industrial Development are so intimately connected with each other that it would be inadvisable that formulation of Policy in regard thereto should be in different hands". My predecessor, Sri T.M.S. Mani, I.C.S., also held the same view and I submit herewith a copy of D.O. letter dated 2--12--48 addressed by him to the Secretary to Government in the Development Department on the subject, with an extract of the note recorded by him in that connection. I agree with my predecessor and am of the opinion that in these days of dearth of technical personnel, it is inadvisable if not harmful to create more departments.

V. Rajagopalan
30/7/49
for Director of Industries and Commerce.

bvs/30-7

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(10) 138

Copy of letter No. 5475-E.3/46 dated 16--1--47 from the Director of Industries and commerce, Madras to the Secretary to Government, Education and Public Health Department.

Sub:-- Education Department--Creation of a post of Deputy Director of Technical Education.

The suggestion that one officer working under the Director of Public instruction might be sufficient to direct control and coordinate the work of all the Technical institutions in the Province is not a sound one. Technical education is at various levels and as such it has to be treated differently at different levels. As far as the diploma and Industrial certificate levels are concerned no effective direction and regulation can be assured unless the Industries and of the Province are made to co-operate and this the department of Education cannot hope to do. On the other hand, the Department of Industries alone is competent and it alone can command the help and co--operation of workshops and factories. Constant contact with the industries is an essential feature of the Polytechnic and Industrial School education and if that is absent in any scheme, Government might be wasting huge funds in turning out a new type of academic technicians. It is for similar reasons that Agricultural, Veterinary and Medical Education is each vested in the department which is directly concerned with the practical side of the profession.

Speaking subjectively there are more points in favour of the transfer of Engineering colleges to the department of Industries and Commerce; but I would not press this point at present since the work involved in establishing the new engineering colleges, the six polytechnics and the 15 industrial schools (let alone the improvement of 80 aided schools) is so vast that it will be practically impossible for one officer to shoulder.

By the middle of 1947 all the new polytechnics and Industrial Schools will be working in full swing in this department. Responsibility for their maintenance and administration devolve on this department. It was already made clear to Government on more than one occasion that the sanction for the post of an Additional Director for Technical Education has been sought in order to relieve the Director and the Joint Director of Industries of the excessive additional work thrown on them by the opening of these institutions. Mere technical advice by the Deputy Director (Technical) of the Education Department will not be of any help in the administration of the polytechnics and industrial schools. I have had occasionally to urge on Government to sanction the post of Additional Director of Industries (Technical Education) immediately and that unless this was done it may not be possible for me to carry on the administration of my department with any degree of efficiency or expedition.

(true copy)

Copy of D.O. No. 5055-C-3/47 dated 2--12--1948 to Sx K.G. Menon, Esq.,M.B E., I.C.S., Joint Secretary to Government, Development department.

I enclose for the information of H.M. Industries a copy of note I have recorded of the results of the meeting of the Standing Advisory Board of Technical Education held yesterday. As H.M. and yourself are aware, I am definitely of the opinion that the creation of a separate department and Directorate of Technical Education and training to deal with, manage, inspect and administer all grades of training institutions including Polytechnic and Industrial Schools would be a retrograde step in present conditions and might result in confusion. I regret my views did not find favour with the majority of the members of the Advisory Board.

I trust the note would be useful to you and H.M. when you are called upon to implement the recommendations of the Board.

(True copy)

P.T.O.

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EXTRACT OF NOTE

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While readily agreeing that it would certainly be desirable to have a Board of Technical Education in which the various institutions which needed technical personnel would be represented, including the Chief Engineers, Public Works Department, and Electricity, the Railways the Port Trust and one or two top ranking industrialists, to decide on policies and objectives and to coordinate technical education and training of various categories such as degree courses etc., I suggested that the creation of a separate department or directorate of Technical Education was not called for for the following reasons:--

(a) The degree courses were chiefly regulated by the University who laid down standards of training and syllabuses and standards of execution with due regard to the marketability of the degrees elsewhere in India and also abroad and taking into account fully the requirements to be satisfied before Indian technical students could secnre admission in foreign educational and training institutions. The Universities would not be agreeable to surrendering all executive action to a separate Government department.

(b) The Industries Department were in daily contact with industrial enterprises and were in the best position to ascertain and arrange for the requirements of technical personnel of the various grades. They had already done a lot of pioneering work in establishing and operating successfully a large number of Polytechnics and Industrial Schools and had arranged through the Technical Diploma Examination Board proper standards for diploma and artisan courses, with due regard to the relative position of the degree courses also. This had been done in consultation with educational authorities and coordination has already been secured. A change at the present juncture would result in considerable confusion.

(c) Once the policy, objective and standards were laid down by the proposed Board of Technical Education, the question of implementation would obviously fall to the departments in closest touch with the requirements. In the case of Polytechnics and Industrial Schools in particular, the Industries Department would be prepared to carry into effect the policies, objectives and standards laid down by the proposed Board on which in addition to the Universities, all institutions training or using technical personnel would be represented. If a separate executive body in the shape of a Directorate of Technical Education were to be set up,that body would be functioning without any close contact with industry and industrial needs. As a matter of fact the Industries Department would still have to be approached for executive and administrative action to be approached for executive and administrative action to give effect to policies and standards.

(d) The categories of training varied so largely e.g., the standards and methods for degree courses were very different from those for diploma courses although the personnel trained in these two categories would be complementary. It would therefore be difficult for any one directorate to deal with these varying items of training, without being in the closest possible touch with the consumers of the products of the institutions and their requirements.

(e) The creation of a separate directorate would amount to the installation of a fifth wheel in the coahh and add to the number of departments which would ultimately have to deal with technical education problems.

(f) The statement that the Director of Industries was over worked because of his being asked to deal with technical education in the diploma and artisan standards was not correct as there was a separate Joint Director of Industries who dealt with technical education and training as part of other duties. There is considerable advantage in the Industries Department, which is in close contact with industry and industrial requirements, dealing with technical education and training in the diploma and artizan standards, as part of its work

p.t.o.

(7) 160

3. H.M. Education thought that as objections had been raised by me it might be possible to arrive at a compromise and suggested that while the Industries Department continued to run the Polytechnics and Industrial Schools, the supervision and managementof the Polytechnics and Industrial Schools should vest with a separate Directorate of Technical Education. I pointed out that an inspection staff already existed in my Department and that it would hardly be conducive to efficiency for one department ~~merely~~ merely to operate the institutions and another to manage and inspect them. Further the administration of the various grades of technical institutions involve budgetary control of all expenditure, appointments and postings, service questions, purchase and repair of equipment, acquisition and repairs of buildings, and a host of administrative details which it would be impossible for one organization to deal with. In other words, a single Director of Technical Education would not be able to deal with degree courses, diploma institutions and artisan schools. The net result would be mere multiplication of staff while much of the actual work would still have to be done by the Departments concerned.

xxx xxx xxx

(True Extract)

141

142

E.P.H.(A)

(72)

Very urgent

Memo. No. 85920-11/48A Edn. dated 17-12-49.

Sub: Techl. Edn. - Forming a separate Dept.

from the D.P.I. No. 1649/k2/49 d. 15-7-49.

The D.P.I. is requested to work out the proposal with its full financial implications and submit it to the Govt.

To the D.P.I.

16.12.49.

17/12/49

DPI 19/12/49

143

Education Department.

From

The Director of Public Instruction,
Madras.

To

The Secretary to Government,
Education and Public Health Department,
Fort St. George, Madras.

Rc.No.1649 K2/47 dated 24-12-1949.

Sir,

Sub: Technical Education - Forming a separate Department.

Ref: Govt.Memo. No.85920-11/48-A Edn., dated 19-12-1949.

With reference to the Government Memo referred to above I have the honour to state as follows:

The question of creating a separate department for Technical Education with a Director as its head was sponsored by a Sub-Committee of the Standing Advisory Board for Technical Education. There is no indication as to the staff that would be necessary for this Department. It is not known whether there will be any inspecting staff to inspect the Technical Institutions periodically. I would, therefore, suggest to Government that further particulars regarding the new Department should be decided only by the Sub-Committee and the Standing Advisory Board for Technical Education and that the Secretary (Principal, College of Engineering, Guindy) be requested to place the question for discussion at the next meeting of the Board.

Incidentally, I may point out that with the impending establishment of a separate Andhra Province the proposal may, perhaps, be deferred as there will not be sufficient work for a separate Department.

Yours faithfully,

for Director of Public Instruction.

KHR.26.12.

144

Dev. D.I

145

Letter No. 4622- D. I/50-1 d 25-1-50

To the Chief Secretary to the Govt of Bombay, Bombay.

The Chief Secretary to the Govt. of West Bengal, Calcutta.

The Chief Secretary to the Govt of U.P, Lucknow.

The Chief Secretary to the Govt of Bihar, Patna.

The Chief Secretary to the Govt of Central Provinces, Nagpur.

Sir,

Subj:- Technical education - formation of a Separate Dept

I am directed to state that the question of creating a separate Dept. for Technical education with a Director at its head to co-ordinate technical education in Engineering Colleges, Polytechnics, Technical High Schools and Industrial Schools in this Province is

vide P 143 f

146

under the consideration of the Govt of Madras. In this connection I am to request you ~~to be so good as to~~ furnish information whether the Polytechnics and Industrial Schools in your Province are under the control of the Industries Dept or the Education Dept. — Is An early reply is requested. Yours faithfully,

24/1/50 MS 24.1.50.

24/1/50

R.D. 20/2

25.1.50.

FILED
ASSISTANT SECRETARY TO GOVERNMENT
19 FEB 1950
DEVELOPMENT DEPARTMENT

(25) 147

No. 1663-XIX.

GOVERNMENT OF MADHYA PRADESH
Education Department.

14173

From,

Dr. M.S. Modak, M.A., Ph.D.,
Under Secretary to Government,
Madhya Pradesh,

To,

The Secretary to Government of Madras,
Development Department,
Fort St. George, Madras.

Dated Nagpur, the 16 February, 1950

Subject:-Technical education - Formation of a separate Department.

.....

Sir,

I am directed to refer to your letter No. 4622-D-I/50-1 dated the 25th January, 1950 and to state that the Technical and Industrial Schools in the State are under the control of the Education Department. There is no Polytechnic School in the State.

pp145-146 above

Yours faithfully,

Under Secretary to Government,
Madhya Pradesh.
Education Department.

16/2 ....

BLVerma. 14.2. Submitted for perusal. Dev. D. I

The replies from the other Govts. who have been addressed in the matter may be awaited till 1-3-50.

21/2/50 MS 21.2.50.

21.2.50

(76) 149

No. 163/3945-B,
Development Department,
Bombay Castle, 17th February 1950.

From

N.S. Pardasani, Esquire,
Under Secretary to the Government of Bombay,
Development Department.

14506

To

The Secretary to the Government of Madras,
Development Department,
Fort St. George, MADRAS.

GOVERNMENT OF BOMBAY
DEVELOPMENT DEPARTMENT
SECRETARIAT
21 FEB 1950

Subject:- Technical Education.
Formation of a Separate Department.

Sir,

I am directed to refer to your letter, No.4622 D.I/50-1, dated the 25th January 1950, addressed to the Chief Secretary to the Government of Bombay, on the subject mentioned above and to state that except for the Government Tanning Institute and Leather Working School, Bandra, all technical institutions in this State are under the control of the Joint Director of Technical Education who is under the Administrative Control of the Education Department. The Tanning Institute and Leather Working School referred to above are under the control of the Director of Industries.

2. I am to add for your information that Peripatetic Demonstration Parties are under the control of the Joint Regist for Industrial Co-operatives and Village Industries who is unde the administrative control of this Department.

Yours faithfully,

Under Secretary to the Government of Bombay,
Development Department.

pp 145-146 above

Dev. D.I

The replies from the remaining Govts who have been addressed, in the matter may be awaited till 1-3-50.

HJB/P7. 23250

All Communications to this Office should give the No., Date and Subject of any previous correspondence, and should note the department quoted.

No. w/215 (S)/XVIII-

From Shri S.P. Pande, P.C.S.,
Under Secretary to Government,
Uttar Pradesh. United Provinces.

To The Secretary to the Government of Madras
Development Department,
Fort St George,
Madras.

Dated Lucknow, February 27 1950

Subject:- Technical education- Formation of a separate Department.

Sir,

With reference to your letter No. 4622 D.I/50-1, dated January 25, 1950, on the above subject, I am directed to say that the Polytechnics and Industrial Schools in this State are under the control of Industries Department of this Government.

Yours faithfully,

(S.P. Pande)
Under Secretary

Dev. D. I

Submitted for perusal. The Govts. of W. Bengal and Bihar may be reminded in the matter. A draft reminder letter is submitted for approval.

4/20/50 4.3.50.

PSUP—500 Govt—1949. 50,000

Industries (A) Department

pp/455/66 above

168

152

150

Desp. D. I

25.27
6/3

Revised Memo — 6/3/50. Letter No. 4622 - D-I/50 - 3 & 4 - 3-50.

B/413

To The Chief Secretary to the Govt of West Bengal Calcutta

The Chief Secretary to the Govt of Bihar, Patna

Sir,

Subject:- Technical Education - Formation of a Separate Dept.

pp 145-146 cf

Ref:- This Govt's letter No. 4622 - D.I/50. dated 25-1-1950.

I am directed to enquire when a reply ~~an early reply~~ to the letter cited may be expected.

Yours faithfully,

6/3/50 4.3.50.

N.R. 2/3

FIFTH ASSISTANT SECRETARY TO GOVERNMENT
10 MAR 1950
DEVELOPMENT DEPARTMENT

No. 2101 A.
2M-133-50

Government of Bihar.
Appointment Department.

From

S. K. Chakravarty, Esquire,
Under Secretary to Government,

To

The Secretary to Government,
Development Department, MADRAS.

Dated, Patna, the 6th March, 1950.

Subject :- Technical education - Formation of a separate Department.

Sir,

With reference to your letter No.4622/D6/50 dated the 25th January, 1950, I am directed to say that there is at present no Polytechnic institute or Industrial School in Bihar. As regards Engineering Schools and Engineering Colleges in Bihar, they are under the control of the Industries Department.

Yours faithfully,

Under Secretary to Government.

Dev. D. I

Shrivastava, 1/3

The reply from the Govt. of West Bengal may be awaited till 25-3-50.

[They were reminded on 4-3-50]

11/3/50 11.3.50.

1335

1018

Dev. D. I 157

Letter No. 4622 - D. I/50 - 4 dt 29 - 3 - 50.

To The Chief Secretary to the Govt. of West Bengal, Calcutta.

Sir,

Subj:- Technical education - Formation of a separate Department

Ref:- This Govt's letter No. 4622 - D. I/50 - 1 dated 25 - 1 - 50 and reminder letter of even number dated 4 - 3 - 50.

I am directed to enquire when a reply to the letter cited may be expected.

Yours faithfully,

Under Secretary.

158

Reminder

Secy. D.I 17-11-50.

Letter No. 4622-D.I/50-5 dt 18-5-50.

To the Chief Secretary to the Govt of West Bengal, Calcutta.

Sub:- Technical education - Formation of a Separate Deptt.

Ref:- this Govt's letter No. 4622-D.I/50-1 dated 25-1-50. #145-46 above and reminder letters of even number dated 4-3-1950 and 29-3-50 p153 and p157 above

I am directed to request an early reply to this Govt's letter cited.

y.f.

Yours

Please 15/5/50

15/5/50 W 18.5.50.

NR 25/6.

Edn

159

Technical Education - Creation of a separate deptt. - Proposal of the Standing Advisory Bd for Technical Edn - Deferred.

Cno 85920 G/48

4/148 p136 cf p143 cf

From the W.G. & C. Doc. 5055-C&I/47 dt 28.2.48
From the D.P.I. Doc. 1649 Ed/47 dt 24.12.48

Order/Ms 2276 dated 12/8/50.

X-ref p31 cf.

The Govt have decided that the proposal of the Standing Advisory Board for Technical Education that Technical Education should be constituted into a separate department under the Education Deptt and placed under the administrative control of a Director of Technical Education,

160

who will have the status of a Head of a Dept, may be deferred.

160
24.7.50
Rs 28.7.50

1/8/50 Dl. 1/8/50

To DPIwo 16/8.
The DPI
" DD&C.
" Principal, College of Engg., Guindy
Copy to Dept Dept
2/secs.

6170/48-1
25.11.48.

Save a copy 161

ASST. SECRETARY TO GOVT. EDUCATION AND PUBLIC HEALTH DEPT. 19 NOV 1948

ABTE/48.

College of Engineering, Guindy, Madras-15, Dated: 16th Nov. 1948.

From
Rao Bahadur Lt.Col.S.Paul, B.E.,
Principal & Secretary,
Standing Advisory Board for Technical Education,
College of Engineering, GUINDY.

To
The Members of the Standing Advisory Board for Technical Education.

SIR,

SUB: Third Meeting of the Standing Advisory Board for Technical Education.

35920

The third meeting of the Standing Advisory Board for Technical Education will be held at 2-30 P.M. on Thursday, the 2nd December 1948 in the Council Chamber, Fort St.George. The Hon'ble Minister for Education will preside. The Agenda for the meeting will follow in due course. I am to request you to make it convenient to attend the meeting.

S.Paul
17/11/48

SECRETARY.

Copy to the Secretary to Government Education & P.H. Deptt. Fort St. George, Madras. for information.

2/ V62

E-P.H.(A)

Please see the letter from the ~~Principal~~ Secretary, Standing Advisory Bd. for Techl. Edn. on plante may be perused. The receipt of the agenda for the meeting of the Bd. to be held on 2.12.48 may be awaited.

The meeting will be held in the Committee room and not the Council Chamber. The Principal of the Engg College, Roorkee, was in the Sect to day and he was satisfied with the accommodation available in the Committee room. It is presumed that the Committee room is not booked for any other meeting on 2.12.48. Chief Sect. may see.

22.11.48

X next to the room I H.M (Edn)

A

22/11/48

24/11/48 Chief Sectt

Special

K

Sectt. of the M.L.

8

Plante

Please see letter No.ABTE/48, dated 16-11-1948 from The Secretary, Standing Advisory Board for Technical Education at page 1 ante.

ASST. SECRETARY TO GOVERNMENT 24 NOV 1948 EDUCATION AND PUBLIC HEALTH

87380

He has intimated to the members of the Board that the next meeting of the Advisory Board would be held in the Council Chamber at 2-30 P.M. on 2-12-1948. Previously, the E. & P.H. Deptt. used to send a requisition to this Secretariat for making the Council Chamber available for the meeting of the Board. So far no such requisition has been received in this Sectt. for this meeting. The Legislative Council is in session now and it is not known whether it would ~~continue to sit~~ be over before ~~till~~ the 2nd December, 1948. It may therefore be suggested that the Committee Room may be utilised for this meeting. This may therefore be sent to E. & P.H. Deptt. and they may be requested to say whether they are agreeable to the above proposal.

23/11/48

23/11 24/11

D.O. No. 7686/48-Immd. 24.11.48.

E & P H dept (A)

Please see the letter, since received, from the Principal, Engg. college, Roorkee, on p 3 c.f. and the note of the H.L. Sectt. above. The meeting of the Standing Advisory Bd. is to be on 1-12-48, instead of on 2-12-48, as previously notified. The file may now be sent to the Chief Sectt. as already marked on p 2 ante.

ADDITIONAL ASSISTANT SECRETARY TO GOVERNMENT 6170 48 PUBLIC DEPARTMENT

25-11-48

25/11/48

25/11/48

Chief Sectt

E.P.H. u.o. 85920-4/48A dated 25-11-48

C.S(O.P.II)

Please see the letter from the Principal, Engineering College and the notes of E.&P.H. Dept. on pp 1-3 ante. With reference to 'A' on p 2 ante E.&P.H. Dept. may be informed that the committee room (Room No. III) is under the Control of M.L. Sectt. ~~They may be asked to~~ and they should apply to that Sectt. for reserving the room for the meeting of the Advisory Board for Technical Education on 1-12-48.

25/11/48

25/11/48

E&PH (A)

C.S(O.P.II)
V.O.61708/48-1
25-11-48

ASST. SECRETARY TO GOVERNMENT
30 NOV 1948
EDUCATION AND PUBLIC HEALTH DEPT.
88057A

Attention is invited to the notes of the Chief Sectt. (O.P.II) on p 5-6 of (V). The Committee room (room No. 111) was then under the charge of the chief Sectt. It is understood that it has since been placed under the control of the M.L. Sectt. That Dept. may now be requested u.o. to permit the room being used for the forthcoming meeting of the Standing Advisory Bd. for Techl. Edn. on 1-12-48.

G.O.1677 Edn 2-7-48

ascertained from (O.P.II) & ch. Sectt.

26-11-48

26/11/48

M.L. Sectt.

ASSISTANT SECRETARY, MADRAS LEGISLATURE
26 NOV 1948
FORT ST. GEORGE

E.P.H.-u.o. 85920-2/48A
dated 26.11.48

Sectt. of the M.L.

Please see the notes above.

The Committee Room may be made available for holding the meeting of the Standing Advisory Board for Technical Education on 1-12-1948.

007868

ASST. SECRETARY TO GOVERNMENT
27 NOV 1948
EDUCATION AND PUBLIC HEALTH DEPT.
88120A

H.M.(Edn) somehow or other came up above that and I told him that the Council chamber would be available for the purpose of the council meeting on that day. Since the Council will not meet on 1-12-48 the chamber will be available for the meeting of the committee.

27/11/48

27/11

O.No. 7868/48
27.11.48.

E.P.H.(A)

Please see the notes of M.L. Sectt. at the bottom of p ante. It is stated that the Leg. Council will not be meeting on 1-12-48; and that therefore the Council chamber is available for the meeting of the Standing Advisory Bd. for Techl. Edn. The Principal, Engg. college, Guindy, may be informed of this. ~~Draft~~ A draft memo is submitted for approval. After issue, the file may be circulated to H.M.-(Edn.) for information.

27-11-48

27/11/48

27/11/48

30.11.48

C.no. 88498 from the Principal, Engg. college, Guindy
No. ABTE/488-25-11-48.

SECRETARY, EDN. AND A.H. DEPT.
30 NOV
GOVERNMENT OF MADRAS

Please see the letter from the Principal, Engg. College, Guindy, ~~Setting~~ setting out the agenda for the meeting of the Standing Advisory Bd. for Techl. Edn. on 1-12-48 and enclosing notes on the various items included in the agenda. The receipt of the proceedings of the meeting may be awaited.

30-11-48

30/11/48

1/12/48

A

(85)

Secretariat of the Madras Legislature

SPECIAL.

Please see copy of letter No. ABTE/49, dated 29.1.49 addressed to the members of the Standing Advisory Board for Technical Education from the Secretary of the Board at page 1 ante.

The Secretary of the Board has informed the members that the fourth meeting of the Standing Advisory Board for Technical Education would be held in the Council Chamber, Fort St. George at 2-30 p.m. on 7-2-1949. the date of the meeting has been fixed without previous Consultation with this Secretariat. Usually, the Education & Public Health Department used to send a requisition to this Secretariat for making the Council Chamber available for such meetings. No such requisition has so far been received.

This may therefore be sent to them and they may be requested to say whether the Council Chamber is required for the purpose proposed meeting. If so, it may be made available to them. The orders of the Hon'ble President will be obtained.

G.O.No. 646/49-1M.L. dated 4.2.49.

4/2

4/2

A.

The Principal of the Engg college, Guindy, does not know the procedure to be adopted in such cases. The correct procedure has been explained to him.

The Secretariat of the Legislature may be requested to move the Hon'ble President to place the Council Chamber at the disposal of this dept. on the 7th for holding the meeting.

4/2/49

Section Officer

Please see the above note from the E.& P.H. Deptt. In this connexion it may be pointed out that the meeting of the Joint Select Committee on the Madras Buildings (Lease and Rent Control) Amendment Bill, 1948, which was originally scheduled to meet at 11 a.m. on 7-2-1949 in the

ASST. SECRETARY TO GOVERNMENT EDUCATION AND PUBLIC (766)A 4 FEB 1949

X t.m below. Noted.

ASSISTANT SECRETARY, MADRAS LEGISLATURE 4 FEB 1949 FORT ST. GEORGE

Document not now traceable.

No. E.P.H.-a-0.766)A-2/49-1

dated 4.2.49

807

in the Council Chamber would meet on the same date and place from 12 noon. It is not likely that the meeting would be over by 2-30 P.M., when it is required for the meeting of the Standing Advisory Board for Technical Education. It is therefore suggested that the meeting of the Board may be held in the Committee Room, which would be made available if required.

5/2/49. 5/2/49.

MSR 5/2

U.O. No. 646/49-2 ML 5.2.49. 8198A

Ed & P.H. Deptt

A.

The Secretariat of the Legislature may be requested to make the Committee Room available as there is no other alternative. They may also be requested to see that sufficient furniture is supplied &.

Shorthand reporter from the Legislature office was deputed for the last meeting of the Board. They may be requested to depute a reporter for the meeting on the 7th inst also.

AGM 5/2/49

Secy to Govt Legislative

6/2/49. Please see the above note from the Education & Public Health Deptt.

The Committee Room may be made available for the meeting of the Board. About 33 chairs, as requested therein, may also be placed in the Room.

5/2/49 6/2/49. As the Assembly is sitting to-day it is requested that it will not be possible to spare the services of Reporters to attend the meeting.

AGM 6/2/49.

DSW 7/2/49.

7/2

Edn & P.H. Deptt

U.O. No. 646/49-3 ML 7.2.49

6

For orders.

AGM. 7-2-49. Sri Subramanian may be deputed for the meeting. Meanwhile R.S. Srinivasan may look after Subramanian's work.

AGM 7/2/49

* They are about 30 members on the Board. Some two or three other officers also have to attend the meeting.

ASSISTANT SECRETARY, MADRAS LEGISLATURE SECRETARIAT 5 FEB 1949 766A 3/49A

ASST. SECRETARY TO GOVERNMENT EDUCATION AND PUBLIC HEALTH DEPTT 12 FEB 1949 8804A

Through Reporting Section

-5-

98

I cannot spare Mr. Subramanian who is constantly required for my work.

7/2

Srinivasan may please attend the meeting & take notes

RSM 7/2/(49)

Notes

7-2-49 C.No. 7657 from the Principal, Engg. college, Guindy dt. 2.2.49.

p83-87 c/f

The third meeting of the Standing Advisory Board for Technical Education was held on 1-12-48. The agenda for the meeting was as on p11 c/f. Only item (1) in the Agenda was dealt with in the Bd.'s meeting on 1-12-48. The proceedings of this meeting were sent by the Principal, Engg. college, Guindy, may be perused. (The other items in the Agenda on p11 c/f. have been considered at a subsequent meeting of the Board held on 7-2-49. The proceedings of this meeting are still awaited from the Principal. He is being reminded separately in this regard.)

p83-87 c/f

vide p81 c/f

2. In this meeting on 1-12-48, the Standing Advisory Board has taken two important decisions —

(1) it accepted the proposal to reduce the B.E. degree course from four to three years;

para 8 on p85 c/f.

(2) it also accepted a proposal to form a separate Dept. of Techl. Edn., with a Director at its head.

para 10 on p85-87 c/f.

C.No. 6597 A/48. (file issued with a reminder to Mr. E.S.)

There is a separate file regarding item (2) above. The decisions of the Universities in this matter are awaited. Action is here necessary only regarding item (2) above. This is dealt with below.

It was reported in the papers that the Madras, Andhra & Annamalai Universities have agreed to the proposal.

3. In June 1948, the Standing

E.I.C.

Advisory Bd. set up a Committee to suggest measures to increase the efficiency of the Engg. colleges. One of the recommendations made by that Committee was that "Technical Edn." should be constituted into a separate Dept., with a Director at its head. This Dept. was to coordinate Techl. Edn. in Engg. colleges, Polytechnics, Technical High Schools and Industrial Schools. The proposal was opposed by the Director of Industries and Commerce. But, by a majority, the Standing Advisory Board accepted it.

4. It may here be noted that in 1947, Govt. deferred a proposal to appoint a Dy. Director of Technical Edn. in the D.P.I.'s office, to assist the Director in dealing with the work relating to Engg. colleges and the vocational side of the bifurcated S.S.L.C. Scheme. The present proposal is to form an independent Dept. to coordinate all Techl. Edn. relating to Engg. colleges, Polytechnics etc. It seems that the remarks of the D.P.I. and the D. of I.C. will have to be obtained first, for orders whether this may be done. Development may see before circulation.

E.P.H.-u.o.85920-6/48A dated 29.3.49

Development D.I

To AS/ The notes of the E.P.H. at Pn 9-10 above may be perused and the file returned to E.P.H.

Development No. W/ 34443-DI/49

PTO

(Notes from page 9 ante may be perused. E.P.H.(A) A draft memo is submitted for approval. The file may be circulated to H.M.(Edn.) before the draft is issued.

The draft is self explanatory

H.M.(Edn.) / H.M.(L.R.)

[Issued as Memo. No. 85920-5/48A Edn. d. 22.3.49 from the Principal, Engg. College, Guindy No. ABTE/49 dated 8.4.49.]

The Principal, Engg. College, Guindy, has now sent the copy of the minutes of the meeting of the Standing Advisory Bd. on 7.2.49. Relevant extracts from the minutes have been taken and dealt with in the connected files.

2. The replies of the D.P.I. and the D. of I.C. to the memo on p103-104 ante may be awaited.

p 20

b.No: 65432 A. From the D.P.I. No. 1649 K2/47 dt 15.7.49.

b.No: 58765 A. From the Director of Industries and Commerce. No: 5053-C3/49 dt 28.7.49

-.

In June 1948 the Standing Advisory Board for Tech. Edn set up a committee to suggest measures to increase the efficiency of the Eng: colleges. One of the recommendations made by that committee was that Tech. Edn should be constituted into a separate dept under the Ministry of Edn. with a Director at its head. with the status of the Head of a dept. The new dept was to co-ordinate Tech. Edn: in Eng. Colleges, Polytechnics, Tech. High Schools and Industrial High Schools: the recommendation was accepted by a majority at the meeting of the Standing Advisory Board held on 1.12.48. The D.P.I and the Director of Industries were consulted as to whether the recommendation could be implemented. Their replies are on pages 129-133 and 136-140 cf.

The D.P.I has not expressed any definite opinion in the matter. He has pointed out the advantages and disadvantages of the change proposed and left it to Govt to take a decision ~~decide the issue~~.

The Director of Industries and Commerce on the other hand is definitely against the recommendation and considers that no change is required.

It seems that the view of the Director of Industries and Commerce may be accepted Des. may see before circulation

29/9/49 DPI 7/10/49 Dev

(88)

1/ I am not convinced that the arguments of the Director of Industry are so sound. Whether a Board is established or not, there is no reason why the lower stages of technical education, as represented by the Polytechnics, should not be under the control of the same authority dealing with the higher stages, as represented by the Engineering colleges.

2/ Whether the authority concerned should be under the Education, or the Dev. Dept has to be related to the practice of other provinces and countries. This is apparently in favour of the Education Dept. as the subject is educational, whatever its industrial aspects. The mere fact that the Dev. Dept has contacts with industrial concerns should not be allowed an exaggerated importance, because as suggested in the note of Mr Marsh, it will be possible to utilise the Dev. Dept for such contacts as may be necessary

Dev. may see

E.I.H.-4.0.85920-9/484
dated 10-10-49

Dev/ 100573 10/10

To AS

~~Development Dept~~ Develpt Dept ~~of~~

This Dept previously noted on ~~p~~/10 above (& enclosures on pp 138-140 CF) the letter from the D.I/C on ~~p~~/136 CF and the notes of the Edn. H on ~~p~~/12-13 above may be perused. It will be seen that the Committee set up by the Standing Advisory Board for Technical Education to suggest measures for increasing the efficiency of the Engineering College has recommended among others that Technical education should be constituted into a Separate Dept under the Ministry of Education with a Director at its head having the status of the Head of a Dept. The new Dept is to co-ordinate Technical education in Engineering College, Polytechnic, Technical High Schools and Industrial (High) Schools. The Standing Advisory (Board) has accepted the recommendation by a majority. The D.I/C who was consulted in the matter is definitely against the recommendation (for the reasons stated on ~~p~~/136 CF) and he is of opinion that in these days of dearth of technical personnel it is inadvisable to create more Departments. ~~Vide his letter on p/136 CF~~ The Principal, Engineering College, Guindy is also against this proposal - vide pp 131-133 CF. The DPI has not expressed any definite opinion in the matter. ~~But~~ The Secretary, Edn. H. does not agree with the D.I/C and he sees no reason why the lower stages of Technical education as represented by the Polytechnics should not be under the control of the same authority ~~(opposite practice except)~~ dealing with higher stages as represented by the Engineering colleges.

~~It is for orders whether the views of the Edn. H Secretary will be agreed to. After orders are passed the file may be returned to Edn. H.~~ Attention is invited to pp 139-140 CF wherein it has been urged by the DPI that the creation of a Separate Directorate ~~with~~ for Technical Education will only constitute a fifth wheel in the Coach and would only add to the number of Departments which would ultimately have to deal with technical education problems. It is for orders whether in view of the reasons urged by the DPI on pp 136-140 CF and by the Principal, College of Engineering, Guindy on pp 131-133 CF, this Dept will agree with the DPI that there is no need for a separate Directorate.

After orders are passed the file may be returned to Edn H. Edn H will no doubt consult Finance also in the matter and circulate the case to H(M) (Sec) also.

16.10.42. S. Edn H.

M. ~~p~~/12 above

M. ~~p~~/12 above

K ~~p~~/12 above

A ~~p~~/136 CF

B ~~p~~/13 above

M' ~~p~~/139 CF

Vide L' ~~p~~/133 CF

~~p~~/13 above

(89)

'B' on page 13 above.

It is not the Director of Industries alone that holds the view that the Polytechnics and Industrial schools should be under the Industries department. The Principal, College of Engineering also holds the same view. Apart from ~~these~~ this the Director of Public Instruction also points out that there is also a possibility of a certain amount of confusion of objectives arising if the Polytechnics and Industrial schools are brought under the same department as the Engineering College. It will thus be seen that it is not the Director of Industries alone who holds a different opinion.

A ~~p~~/131 CF

M ~~p~~/129 CF

'C' on page 13 above.

It has been pointed out that as the subject is educational whatever its industrial aspect, Polytechnics and Industrial schools should come under Education department. Education department as such is not competent to deal with technical education. If it should at all take any technical education it cannot do so without the help of the technical departments such as Engineering, Industries etc.,

Further if the argument of the Education department

C ~~p~~/13 above

is to be logically pursued it should also take in other subjects, such as Agriculture, Veterinary, Medical, Commercial and in fact anything that savours of education. It is not clear why they have not included these subjects also in their purview. Ordinarily a boy brought up in agricultural surroundings knows consciously or unconsciously more details about agriculture than a man who actually undergoes agricultural education in a school or college. The boy will become a better agriculturist if only he is given agricultural education besides, because the boy feels it his line. In the same manner an industrial atmosphere is necessary in order to mould the life of a boy into an actual industrialist. The study of a few principles in theory will not be of any avail. This is exactly the defect that has been pointed out to be the banal feature among Indian students and which Lt. Col. S. Paul has correctly pointed out. India which is fast developing its industrial possibilities cannot look on indifferently on its engineers and technicians having merely book knowledge. They will prove utter failures from a practical point of view when they are asked to take charge of the works. So long as Education department is in charge of technical education it cannot but make the students mere book worms and theorists as there is no scope there for practical training and for industrial and technical atmosphere to mould them on right lines.

'D' on page 13 above.

It has been pointed out that the mere fact that the Development department has contacts with industrial concerns should not be ~~given so much~~ allowed an exaggerated importance as the services of that department ~~will~~ can always be utilized for such contacts as may be necessary. What is pointed out above will hold good only when such contacts are required occasionally. In imparting education in Polytechnics and Industrial schools

contacts with the Industrial concerns and private industrialists are of a constant, continous and permanent nature. Without these contacts it is hardly possible to expect a healthy growth of industrialisation. The students undergoing training in such industrial and technical institutes should always be in close touch with the departments with which they are concerned and also the industrialists and private industries with a view to acquaint themselves with the latest developments in those fields. It would therefore be more correct to say that the services of Development department and Engineering departments are imperatively and constantly necessary. The interests of students undergoing training in industrial and technical subjects and the interests of the department of Industries and Engineering are mutually dependant. The Education department on the other hand comes into the picture only occasionally and it is quite easy to secure its services as and when required. It will thus be seen that there is greater justification for placing the Polytechnics and Industrial schools under the Industries department than under the Education department.

A

Degree is to evolution of a Diploma.
Polytechnics have a practical bias,
related directly to industry and workshop
practice, and the department in charge should
be one in contact with industry and industrialists
and not one dealing merely with ~~syllabuses, examinations~~
papers and textbooks and ~~text books and examinations~~
the academic side of it. No doubt the
education department will be consulted when
questions of importance how theoretical knowledge in
the class room are involved.

All learning of any kind, whether art,
craft or book knowledge is education, and, as pointed
out by A.S. at c on P16, we doubt, if his idea is
logically pursued, Land over Agricultural ~~colleges~~, Veterinary
~~colleges~~, Medical, Engl., commercial and all other colleges should
be in the Education department.

Development
No/100573-D.II/49-1
19-10-49.

S.P.H.(A)

Notes from page 12 ante may be perused. The Principal, Engg. college, Guindy, the Director of Industries and Commerce and the Development Dept. are against the recommendation of the Standing Advisory Board for Techl. Edn. that "Techl. Edn." should be constituted into a separate Dept. under the Ministry of Edn. with a Director at its head (with the status of a head of a Dept, to coordinate Techl. Edn. in Engg. colleges, Polytechnics, Technical High Schools

P.T.O.

8181
24 OCT 1949

F.III (91)

and Industrial Schools. The Director of Public Instruction has not expressed any definite opinion in the matter. In view of the opposition of the Principal, Engg. college, Guindy, the D. of I. & C. & the Dev. Dept., the recommendation of the Standing Advisory Board need not, ~~perhaps~~, be accepted by the Govt. The file may be circulated to H.M. (P.W.) & H.M. (Ind.) for orders. Finance may see before circulation.

ASSISTANT SECRETARY TO GOVERNMENT
79559
27 NOV 1949
FINANCE DEPARTMENT

19-11-49

S.M.
22/11/49

19/11/49

I advise to my views. Finance may see. If a separate Director for Technical Education is appointed, the equivalent appointment in the Director of Industries, can be retrenched

23
22/11

G.O.Ms.No. 85920-10/48-1
dated 24-11-49

Finance (E.III)

The file deals with the recommendation of the Standing Advisory Board for Technical Education, for the Constitution of a separate dept for Technical Education under the Ministry of Education with a Director on the status of a head of dept, at its head. While E.H.H dept seem to accept the recommendation of the Advisory Board, the Principal Engineering college, Guindy, the Director of Industries and Commerce and the Development dept are against the proposal. The proposal has thus not been finalised, nor have the financial implications involved worked out in the proposal

out clearly. In the absence of the latter mentioned information, it is submitted that no useful remarks can be offered in this deptt at this stage.

25/11/49 — 25.11.49

E & H. (A)

The file may now be circulated to H.M.(Pol.) and H.M.(Ind.) for orders.

29-11-49

30/11/49 Work out the proposal first, with its financial implications

30/11/49

A draft memo to the D.P.I. is subd. for approval.

16.12.49

17/12/49.

[Issued as Memo. No. 85920-11/48A Edn. d. 19.12.49.] p142 c/f

from the D.P.I. No. 1649 K2/47 d. 24-12-49. p143 c/f

The D.P.I.'s letter d. 24.12.49 p143 c/f may be perused. In view of 'k' therein, it is for orders whether the file may lie over till 12.2.50. ~~It is also for orders whether in the meanwhile further action on the Apprenticeship Bill also may be stayed.~~ x c/f

11-1-50.

11/1/50.

Reference may be made to the Standing Advisory Board, which also may be perhaps consulted to advise

FIN. U.O. 7959/Edn.1 28-XI-49

29 NOV 1949 93276

on the department to deal with Polytechnics, and the Apprenticeship Bill. This Dept does not wish to appropriate any part of the Dev. Dept, but it is concerned that the practice of other provinces and countries should not be ignored. Whatever the subject, the principles of education in it are the same and can legitimately be the concern of the same dept. Accordingly, the E & P.H. Dept are concerned with Medical, Engineering and legal education. But they are not concerned with Veterinary and Agricultural education is an anomaly, which cannot be an argument to the general principle that only those should teach, who know to do so.

92

E.P.H. & O. 85920-12/48A dated 16-1-50. (with two d-f. S.)

4622

16/1/Dev

Development Deptt D.I

17 JAN 1950

This Deptt previously noted on ff 14-15 above. The further note of the Ed. P.H. on ff 20-21 above may be perused. With ref. to 'A' above it is submitted that before any further remarks are offered by this Deptt on the matter, it seems necessary to find out the practice

major
obtaining in other Provinces so far as Polytechnics and ~~Technical~~ Industrial Schools are concerned. Subject to orders, a draft letter to the Govts. of other major Provinces is submitted for approval.

Ls 24/1/50 Ks 24.1.50.

Ch/ 24/1/50 S/ 25.1.50

Issued as Letter No. 4622-D. I/50-1. d. 25-1-50. pp145-146 c
From the Govt of Madhya Pradesh, No. 1653-ttt. dated 16-2-50. p147 c
From the Govt of Bombay, No. 163/3945-B. d. 17-2-50. p149 c
From the Govt of Uttar Pradesh, No/4/-150(S)-XVIII- d. 27-2-50. p151
From the Govt of Bihar, No/2101/2.M-133-50.A. d. 6-3-50. p155 c

Dev. D. I

The proposal in this file relates to the creation of a separate Deptt. for technical education with a Director at its head to co-ordinate technical education in Engg. Colleges, Polytechnics, Technical High Schools and Indl. Schools in this State. Education Deptt. are in favour of the creation of such a separate Deptt. for technical education and are of the view that Polytechnics and Industrial Schools in this State should come under the Education Deptt. vide B and C p.13 above

The D.I.& C. is of the opinion that Polytechnics and Indl. Schools should be under the Industries Deptt. and the Principal, College of Engg., Guindy also holds the same view. Apart from this, the D.P.I. also points out that there is a posibility of a certain amount of confusion of objectives arising if the Polytechnics and Industrial schools are brought under the same Department as that of the Engg. College. This Deptt. strongly held the view that there is greater justification for placing the Polytechnics and Indl. Schools under the Industries Deptt. than under the Education Deptt. -vide this Deptt. notes on pp.14-18 above - But the Education Deptt. adhere to the

p136 c
A-p131 c
M-p129 c
K-p17 above

views already expressed by them and have stated that the practice obtaining in other States and countries should not be ignored and that whatever the subject, the principles of education in it are the same and can legitimately be the concern of the same Deptt.

A-p21-X above

With ref. to 'X' above, the Govts. of other Major states were addressed to ascertain whether Polytechnics and Indl. schools in those states are under the control of the Industries Deptt. or Education Deptt. The Govt. of West Bengal have not replied in spite of 3 reminders issued, and it does not appear necessary to await their reply. We can proceed on the basis of the replies received from the Govts. of other Major States.

pp145-146 c

From the replies received it is observed that in Madhya Pradesh, while there are no Polytechnics schools, Technical and Industrial schools in the State are under the control of the Education Deptt. and that in Bombay all technical institutions except the Govt. Tanning Institute and Leather Working school are under the control of the Jt. Director of Technical Education who is under the administrative control of the Education Deptt. Polytechnics and Industrial Schools in Uttar Pradesh and Engg. Schools and Engineering colleges in Bihar are under the control of the Industries Deptt. In the circumstances this Deptt. may adhere to the views already expressed that Polytechnics and Industrial Schools in this State should continue to remain under the control of the Industries Deptt. For orders.

p147 c

M-p149 c

p.151 c

p.155 c

K-p17 above

After orders are passed the file may be returned to Education.

Ch/ 28/6/50 S/ 29.6.50

Education

ASSISTANT SECRETARY (8 JUL 1950) EDUCATION DEPARTMENT

18069 L 28/6/50 Ks 28.6.50.

Ch/ 28/6/50 S/ 29.6.50

Edn.

Develpt No. No 4622-D.I/50-6 29-6-50.

(with Two L.Fs.

Edn
G

The proposal in this file has been summarised in the notes of Wes Deptt on pp. 22-23 ante. The Fin Deptt have stated that no useful remarks can be offered by them at this stage as the proposal has not been finalised and as the financial implications involved have not been worked out fully. The D.P.I who was asked to work out the proposal with its full financial implications has stated that the Sub-Committee of the Standing Advisory Board for Technical Education, which sponsored the proposal, has not indicated the strength of staff that would be necessary for the proposed new Deptt, that the further particulars regarding the new Deptt should be decided only by the Sub-Committee and the Standing Advisory Bd for Tech. Edn and that the Secy of the Bd (Prof. College of Engg, Guindy) may therefore be asked to place the question for discussion at the next meeting of the Board.

pp 19-20 ante

p 142 cf

p 143 cf

It is likely that some addl staff and consequently expre, will be involved in the proposal. As the D Edn and Fin Deptt have strong objections to the implementation of the proposal, it is for consideration whether the proposal may be dropped or whether the Technical Advisory Bd may be asked to discuss the matter and submit detailed proposals with an estimate of cost involved for orders as to circulation.

Fin
10.7.50

Edn
12.7.50

(94)

Edn (Exs)
Edn (Sc)

13/7/50

Although the financial implications have not yet been worked out there is bound to be some additional cost to Govt and on that ground alone the proposal may be defened.

13.7.50

HM(Edn) 14/7

HM(Ind) 15/7

HM(PW) M.B 19.7.50

A draft order is submitted for approval. Dev reference may be made before action issue

Fin
24.7.50

Edn
28.7.50

1/8/50

Dev
1.8.50

Dev.

Edn No 89206 G/48-17
28.7.50

75580

Development Dept DI

This Deptt previously noted on pp 22-23 above the further note of the Education Deptt and the orders in circulation at pp 24-25 above and the draft order below may be perused and returned to Education.

Deptt no
M/75580-D I/50-1
8-8-50.

Edn
5/8/50

ASSISTANT SECRETARY
8.8.50.
23155
9 AUG 1950
EDUCATION DEPT.

Edn
7850

8/8 Orders issued
Edn.

22

Ede
G

Now note on p 25 ante
the Draft Order below may now
issue.

WD
B G SW
Mr
WDSO

11/8/80

28/12/80 FH

65
55

(45)