Public Works (1890) Department.

RAILWAY BRANCH.

G.O., No. 713 Ry.

DATED 22nd May

[Despatch Abstract.]

Mechanical Engineering. — Proceedings, Educational Department, regarding the admission for practical instruction in the Bramhope Workshops, of students of the College of Engineering, Communicated to the Consulting Engineer for Railways.

[P. W. Ry. 760—25-9-99.]

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GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following paper :—

From Lieutenant-Colonel S. C. CLARKE, R.E., General Superintendent, Public Works Workshops, to the Superintending Engineer, V Circle, dated Madras, 2nd December 1889, No. 2622 W.

I have the honor to forward the accompanying letter, dated 2nd December 1889, from the Engineer student V. Devasikhamani Pillai, for your favorable consideration.

2. This student should certainly be removed to Perambúr workshops, or wherever extensive iron and wood works are carried out, to give him every advantage.

ENCLOSURE.

From M.R.Ry. V. DEVASIKHAMANI PILLAI, Engineer Apprentice, to the General Superintendent, Department of Public Works Workshops, Madras, dated Seven Wells, 2nd December 1889.

With reference to my final year's practical course, I beg to bring to your favorable consideration and strong support the following few lines.

In the early part of August this year, myself along with another student of the Engineer class sent an application to the Superintending Engineer through you, requesting if Government will grant us permission to have our final year's practical course in any of the English workshops, mostly at our own expense ; and that if they could grant us certain privileges after a satisfactory completion of the course, in addition to passing any mechanical tests they would prescribe. But as nothing is known about that letter as yet, I beg to request you will please be good enough to get me permission to spend my final year at the Perambúr works, as that is the largest workshop in this Presidency. Further, I beg to state that there is not much in this workshop to learn for more than one year. I have also spent the early part of this session at the Dowlaishweram workshops, and got myself transferred to the Madras workshop as there was little work going on there.

As I believe that a training in the Perambúr workshops will give me a practical knowledge of railway works in addition to the knowledge of machine details, and as such knowledge will give me better prospects in the absence of any encouragement from Government, I am anxious to get myself trained at the Perambúr Workshops, Madras Railway.

No. 6388.

Forwarded to the Chief Engineer for consideration.

I did not pass on the application referred to, to go to England and live there at the public expense, it seemed too preposterous.

CHEMBRAMBAUKUM, *11th December* 1889.

(Signed) W. H. BURTON, Col., R. E.,
Superintending Engineer, V Circle.

No. 114-C.

For favor of information whether the applicant can be afforded instruction at the Perambúr workshops, and if so, on what terms. He is not an apprentice, but a passed Engineer student of the College of Engineering undergoing his practical course.

(Signed) W. L. C. BADDELEY, Captain, R.E.,
9th January 1890. *Under Secy. to Govt., P.W.D.*

To the Consulting Engineer for Railways.

From F. H. TREVITHICK, Esq., Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 18th January 1890, No. 6677—52.

[Your No. 24, dated 11th January. Application by Engineer students for instruction at Perambúr workshops.]

In reply to your enquiry, I have the honor to inform you that there will be no objection to the admission of the Engineer students to the Perambúr workshops. Before, however, the question of terms can be settled, I think I must ask you to be good enough to say more definitely what is intended to be conveyed by "affording instruction."

2. If these men come as pupils, they should, I think, pay a fee to the Locomotive Superintendent in the manner customary at home; and when this subject was discussed by the Committee for re-organisation of the Civil Engineering College, a sum of Rs. 1,000 per student was considered about right. Pupils coming in on these terms, of course, receive no pay, but they are offered every advantage to acquire, not so much actual manual dexterity, as a knowledge of the various handicrafts carried on in the locomotive workshops.

3. Men who come as apprentices come with a view to learning some one particular trade; they are then located in one particular shop, under control of one foreman, they receive pay after a certain time, and in previous cases a sum of Rs. 100 per man has been paid by Government, which sum should, it is thought, go to the Perambúr Mechanics' Institute.

Transferred to the Secretary to Government, Public Works Department, with reference to his No. 114-C, dated 9th January 1890.

27*th January* 1890. (Signed) C. J. SMITH, Col., R.E.,
Consulting Engineer for Railways.

No. 574-C.

MEMORANDUM.

Forwarded to the Educational Department, with remark that in cases where the students desire practical instruction in other than Government workshops, they may reasonably be expected to defray their own expenses.

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
3*rd February* 1890. *Ag. Joint Secy. to Govt., P.W.D.*

Referred to the Director of Public Instruction for report whether the student in question passed out of the College as a civil engineer or as a mechanical engineer, within the meaning of Articles III and V of the College Rules, and for remarks.

(By order.)

4*th March* 1890. (Signed) A. G. CARDEW,
Under Secretary.

From D. DUNCAN, Esq., M.A., D.Sc., Acting Director of Public Instruction, to the Chief Secretary to Government, dated Madras, 26th March 1890, No. 3133.

In returning endorsement of the 4th instant, referring for report a memorandum from the Joint Secretary, Public Works Department, I have the honor to enclose copy

of a letter from the Principal, College of Engineering, in which he states that there is nothing on record to show whether V. Devasikhamani Pillai qualified as a civil or as a mechanical engineer.

2. From the enclosed copies of correspondence between this office and the Agent and Manager, Madras Railway, it will be seen that a premium of Rs. 500 to the Locomotive Superintendent for the two years' training at the Perambúr workshops was suggested by me as a fair arrangement, and accepted by the Acting Agent and Manager. This amount is just one-half of the premium recommended by the Committee appointed by Government in 1880 to consider the question of remodelling the College (*vide* paragraph 34 of its report, embodied in G.O., Educational, No. 61, dated 26th April 1882). I beg to recommend the reduced rate of premium for the approval of Government.

3. The next point to be settled is the source from which the above premium is to be paid. The statistics on page 9 of the Government order quoted above show that the Committee intended the premium to be treated as a charge against the College; and in paragraph 17 of his letter, recorded in the Government order, Mr. Grigg remarked that an additional grant should be made to this department, if it is required to bear the cost of premia and honoraria. Thus it seems to have been understood that the Government should pay the premia—either through the Department of Public Works or the Educational Department—and not the students themselves. Moreover, the grant of subsistence allowance to apprentices during their practical course seems to exempt them from liability for the premia. If it be decided that the students themselves should pay the premia, it would amount to a refund by mechanical engineer apprentices of nearly the whole amount drawn by them for subsistence during the period concerned, while the civil engineer apprentices pay no premia whatever for similar instruction at the Government workshops. In the present condition of this branch of instruction, every facility and encouragement should be afforded to young men seeking the profession of mechanical engineers; and it seems to me that the Government should undertake to pay the premia. If the additional cost be considered an undue burden—which I trust it will not be—then, as an alternative, I would suggest that a moiety of the amount be paid by Government, the apprentices being required to pay the other moiety out of the subsistence allowance, in consideration of their exemption from payment of fees when they are in receipt of practical instruction.

4. I beg to add that two mechanical engineers are now undergoing practical training at the Perambúr workshops. They have agreed to abide by any arrangement that may be decided as to the payment of premia.

ENCLOSURES.

From F H. TREVITHICK, Esq, Acting Agent and Manager of the Madras Railway Company, to the Acting Director of Public Instruction, dated Madras, 15th February 1890, No. 6677—1180.

[Your No. 1353, dated 8th February instant.]

I very much regret that by an oversight the letter you allude to, dated 31st October 1889, on the subject of admission into Perambúr works of mechanical engineer students, has been allowed to remain so long unreplied to.

2. There is no objection to the admission of the students. The only difficult point to settle is the question of remuneration. In connection with this, I enclose copy of a letter on the same subject written in reply to the Consulting Engineer for Railways.

3. The customary charge at home for engineer pupils is a hundred guineas a year for four years. Such a charge as this is, of course, out of the question here, and I am afraid also the Rs. 1,000 mentioned in the enclosed letter is too high. If you could make any proposition, we shall be prepared to meet you as far as possible.

From D. DUNCAN, Esq., M.A., D.Sc., Acting Director of Public Instruction, to the Agent and Manager, Madras Railway Company, dated Madras, 28th February 1890, No. 1964.

In acknowledging, with thanks, the receipt of your letter, No. 6677—1180, of the 15th instant, I have the honor to enclose copy of a letter, No. 1264-C, from the Principal, College of Engineering. Captain Love's suggestion that a premium of Rs. 500 may be fixed for the two years' training seems to be a fair arrangement for the present, and I beg to inquire whether this meets with your approval. On learning your views, I propose to address Government for payment of such premium as may be finally fixed.

2. I beg to request that you will be good enough to kindly arrange for the admission of V. Devasikhamani Pillai and V. Rangaswami Aiyangar into the Perambúr Workshop from the 1st proximo or from Monday next.

From Captain H. D. LOVE, R.E., Principal, College of Engineering, Madras, to the Acting Director of Public Instruction, dated Madras 18th February 1890, No. 1264-C.

With reference to your endorsement, No. 1578, dated 17th February, on a letter from the Agent and Manager, Madras Railway, herewith returned, I have the honor to state that the College Committee proposed in their first report that for each mechanical engineer trained for two years at the Railway Locomotive shops, a premium of Rs. 1,000 should be paid. Mr. Trevithick now expresses the opinion that this sum is too high, and declares his readiness to meet your wishes in any proposition you may make.

2. I think that Mr. Trevithick's liberal offer should be accepted, and I suggest that a premium of Rs. 500 for the two years' training, in lieu of Rs. 1,000, be proposed in the first instance for each student. If, after trial, this is found to be insufficient, it might be raised to Rs. 750.

3. Should the Agent and Manager agree, the cost to Government in the Educational Department will be as follows, on the assumption that two mechanical engineers (viz., one per annum) will always be under training:—

	Rs.
Premia for two engineers at Rs. 500	1,000
Subsistence allowances, one engineer, at Rs. 25 per mensem	300
Total ..	1,300

4. The College rules (Article 5 *b*) provide that mechanical engineers shall undergo the full practical course "at the chief workshops of the Presidency." If it were considered sufficient for these students to spend the first year in the Public Works shops, and the second at the Railway workshops, the annual cost would be reduced to Rs. 500+300 = 800.

5. The case that immediately presses is that of V. Devasikhamani Pillai, who has already spent nearly one year and two months in the Public Works shops. It is very desirable that he should proceed forthwith to the Railway shops, and I recommend that the Agent and Manager be asked to receive him at once, pending the settlement of the question of amount of premium. As Devasikhamani Pillai has himself offered to pay, if necessary, any moderate premium that may be demanded, there seems to be no necessity to await the sanction of Government in the matter.

6. If Devasikhamani Pillai can be transferred on the 1st March, the premium to be paid on the above basis would be $\frac{10}{24}$ of Rs 500, or, say, Rs. 200. His subsistence allowance of Rs. 25 per mensem, which is now paid by the Public Works Department, would become a charge against the Educational Department.

From F. H. TREVITHICK, Esq., Acting Agent and Manager, Madras Railway Company, to the Acting Director of Public Instruction, dated Madras, 5th March 1890, No. 1665.

In reply to your letter of the 28th ultimo, I have the honor to inform you that instructions have been given at Perambúr works to receive V. Devasikhamani Pillai and V. Rangaswami Aiyangar as pupils from the 1st of the current month.

I think Captain Love's suggestion that a premium of Rs. 500 for each student should be paid to the Locomotive Superintendent may be accepted.

From Captain H. D. LOVE, R.E., Principal, College of Engineering, to the Director of Public Instruction, dated Madras, 7th March 1890, No. 1326 C.

With reference to your official memorandum, No. 2200, dated 5th March 1890, I have the honor to report that V. Devasikhamani Pillai passed out of the College during Captain Henderson's acting principalship and that there is nothing on record to show whether he qualified as a civil or mechanical engineer. The theoretical course is the same for both classes of students, and it is probable that no definite election was made by Devasikhamani during his theoretical course.

2. The provision made in the last sentence of Article IV, Clause (5), of the College rules, has not hitherto been observed, and it is not, I consider, desirable that it should be observed. A candidate fresh from an Arts College is not in a position to make election until he has had some training in this college, including practice in the College workshop.

3. I propose addressing you shortly on proposed modifications of several of the College rules, and will then embody the suggestion made in the preceding paragraph.

Order—dated 23rd April 1890, No. 294, Educational.

His Excellency the Governor in Council accepts the terms specified by the Agent and Manager, Madras Railway Company, for the practical instruction in mechanical engineering of passed students of the College, viz., Rs. 500 for a course extending over two years.

2. The Government will meet half of this amount from the Educational budget in the case of one student of each year in the A. C. E. class electing to be trained as a mechanical engineer, and the concession will be offered in the order of merit at the final examination. Students who do not gain the concession, and who desire to undergo training at Perambúr, must pay the whole of the premia themselves. Other students electing mechanical engineering will receive training *gratis* at the Public Works Workshops.

3. The admission to the Perambúr Workshops of the two students referred to in paragraph 4 of the letter of the Director of Public Instruction, the senior of whom, it is observed, will have only one year's training, is sanctioned; and half the premia due for them will be paid by Government.

(True Extract.) W. Bradshaw
Captain R E
Under Secretary P.W.D
for Chief Secretary.

To the Public Works Department.
" Director of Public Instruction.
" Public Works Department (Railway Branch).
" Accountant-General.

Exd. A. Raitt.

PWC No: 4664

Govt. of {1890} Madras.

EDUCATIONAL.

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Issued

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R 17.5.90

G.O., 23rd April 1890, No. 294.

APRIL.

B. No 713 R dy. 22 day May 190.

Mechanical Engineering.

Passing orders on the subject of practical instruction in — of passed students of the College of Engineering, and the admission to the Perambúr Workshops of the students referred to.

B No 713 R dy 22 day May 190.

Communicated to the Consulting Engineer for Railways for information.-

Revd 19.5.90

for R

To

The Consg. Engr for Rlys

Exr & Rly Secrets

R 21.5.90