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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1020 (W) Press ~~Mis.~~

Dated 13-10- 1877.

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

13th October 1877, No. 1,020 W.

Buildings and Roads.
Military Works.

Read the following paper:—

No. 143. Endorsement of the Military Department, dated 12th September 1877, No. 5,139.

Reports from G. H. Faulkner, Esq., Executive Engineer, on the Fort Gas Works, dated 4th and 6th October 1877.

No. 143-A. ORDER THEREON, 13th October 1877, No. 1,020 W.

BEFORE sanctioning any expenditure whatever for testing the gas pipes, &c., &c., &c., His Grace the Governor in Council desires that the whole of the original papers on the subject of the Fort St. George Gas Works be made over to the District Engineer, Presidency, who will at once employ Mr. Executive Engineer Faulkner upon the task of drawing up a report on the cost per 1,000 cubic feet at which gas has hitherto been manufactured in Fort St. George. When this fact has been ascertained the Government will be prepared to pass further orders on the subject.

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Government, P.W.D.

To the District Engineer, Presidency, with papers in original.

Exd. A. Grubert.
Spare Copies

Fair Copy and
Return Soon –

4 OCT 77

Memorandum by the Chief Engineer

Before any money is expended – I wish to know ~~the~~ whether the cost of gas is approximately [illegible] earlier paper of it is? can it be largely reduced? & how? if not they are an unduly extravagance I mean to say since that some acct. [illegible] examine the statements –

As regards the expense sought – it may be safely assumed that the greater portion of wrot. iron service pipes are corroded inside [illegible] main [illegible]

In circulating two reports of Mr Faulkner on the Fort Gas Works, the Chief Engineer recommends that an outlay of 500 Rupees be sanctioned to allow of a thorough examination and testing of the pipes of one section of the works. It is expected that the money will not be thrown away in a mere experiment, but that permanent benefit will be derived from the outlay, and an opinion can possibly be arrived at as to Mr Faulkner's ability to supply the report called for by Government and thus save the heavy expence of getting a Gas Engineer from Calcutta.

E A [illegible] R.E.
Chief Engineer P.W.D

will send –

~~[illegible]~~

The important question is – the cost of the cost of gas as I have stated from the papers [illegible] the works have been started – no money spent thereon –

I am not aware whether Mr T has inspected the [illegible] of gas [illegible] pipes by water [illegible] [illegible] questions [illegible] [illegible] [illegible] causing [illegible] [illegible] pipes [illegible] + choke the [illegible]

If Mr T can [illegible] the cost ~~[illegible]~~ [illegible] then we can consider the question of [illegible]

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4 OCT 77

~~Fair Copy and Return~~

Oct 4/77

To Major Ross Thompson
District Engineer –
Sir.

I have looked over all the Correspondence & plans handed over to me from your Office –

From the Correspondence I cannot find out in what particular the Gas Works failed –

I have examined the plant as far as it can be seen above ground & it appears excellent of its kind –

I have seen also a piece of piping that was taken up & which is eaten through from having been ~~[illegible]~~ laid in a soil saturated with salt

This morning Mr. Reader

received his orders to take
instructions from me & I
pointed out a ~~portion~~ place ~~of~~
near the Government Office
near the Grand Powder Mag
which I should wish to have
opened up for about 30 feet
so as to Expose the Main
pipe & Joints – I can then
form some opinion of their
state –

Also I requested him to
open up & expose 2 ~~pipes~~
distributing pipes –

Then I will examine tomorrow
morning –

I propose after that to
~~test~~ with air from the
large Gasholder the whole
length with side pipes as
far as the South Gate
cutting off all to the West
for the present –

Should not this prove very
Satisfactory – I should try
the same with water under
pressure =

I cannot learn from
any of the Lessees that this
necessary precaution had
been adopted before laying
on the Gas –

I have searched in vain through
the Plans for the levels
of the main Pipe – these
are very necessary & could
be got at now by pricking
through the ~~[illegible]~~ ground on
to the main Pipe = say at every
9 feet from the Gas holder
to the South Gate – noting
at each distance the exact
position of the syphon –
After ~~Upon~~ proving the pipes
again with air – they should
be proved with Gas –

This can be made

from any inferior Coal as it will be wasted –

As soon as I see my way to getting the whole of the Eastern lights in good working I will commence the Western portion – by that time I shall have found out ~~what is~~ to what the defects to the Gas works are attributable –

It is very necessary that I should have a room in the Fort to live in for the present as these examinations & repairs &c will take up my time both day & night – & require hourly attention –

I have not the slightest doubt about being able to bring the whole into

OCT 77

Madras
5th October 1877.

From
Mr G. H. Faulkner
Executive Engineer
To
Major Ross Thompson R.E.
District Engineer

Sir

I have looked over all the correspondence and plans handed over to me from your Office.

From the correspondence I cannot find out in what particular the Gas works failed.

I have examined the plant as far as it can be seen above ground and it appears excellent of its kind.

I have seen also a piece of piping that was taken up and which is eaten through from having been laid in a soil saturated with salt.

This morning Mr Reader received his orders to take instructions from me and I pointed out a place near the Government Office near the Grand Powder Magazine which I should wish to have opened up for about 30 feet so as to expose the main pipe and Joints - I can then form some opinion of their State

also I requested him to open up

and

and expose 2 distributing pipes. these I will examine tomorrow morning.

I propose after that to test with air from the large gasholder the whole length with side pipes as far as the south gate cutting off all to the west for the present

Should not this prove very satisfactory I shall try the same with water under pressure

I cannot learn from any of the Lascars that this necessary precaution had been adopted before laying on the Gas

I have searched in vain through the plans ~~from~~ for the levels of the main pipe - these are very necessary and could be got at now by pricking through the ground on to the main pipe - say at every 9 feet from the Gas holder to the South gate - noting at each distance the exact position of the Syphons - after proving the pipes again with air - they should be proved with Gas.

This can be made from any inferior coal as it will be wasted -

As soon as I see my way

to

to getting the whole of the Eastern lights in good working I will commence the western portion - by that time I shall have found out to what the defects to the Gas Works are attributable.

It is very necessary that I should have a room in the Fort to live in for the present as these examinations & repairs &ca will take up my time both day and night and require hourly attention.

I have not the slightest doubt about being able to bring the whole into good working order

If necessary to make an estimate I should wish to be informed, if the whole of the piping Lamps &ca which I saw in the stores this morning has been written off against the Gas Work plant or if they are in stock with value -

If the latter I should wish to be supplied with a list of such stock - quantity of each kind & value

I have the honor to be
Sir
Your Most Obedient Servant
J W Faulkner
Executive Engineer

Buildings & Roads.

From –
The Distt. Engineer
Presidency

Submits report from Ex. Eng. Mr Faulkner on the Examination of the Fort Gas works.

No. 3728.

Submitted to the Chief Engr. Buildings and Roads for orders.

Wm Thompson Majr
5th Oct 77 Distt Engr Presy

Cir 8-10

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6 OCT 77

Madras Oct 6. 1877.

To
Major Ross Thompson.
District Engineer

Sir.

In continuation of my letter Dated Oct. 4th I have now the honor to report that I have had an opportunity of Examining the Main Gas pipe & 2 Service pipes –

The ½ service pipe is very much corroded & as it was laid down at the same time as nearly all the others it may be taken as an indication of the state of the whole –

These ½ pipes will have all to be taken up & new ones put down – but as there appears to be plenty of piping in Stock there will be merely the expense of Breaking up the Ground &

and relaying-

The pipes should have been in the first instance protected from the salt saturated earth by lapping with tarred rope- or they should have been buried in Chunam-

The Cast iron 1" service pipe I found in good order.

The Main pipe is also in good order.

Rust Joint

I have only to remark that the Joints have been made with a mixture of iron Borings Sal ammoniac & sulphur- a very proper kind of cement for a Water Mains- but unsuitable for Gas- I doubt very much that these Joints will give great trouble & be a source of constant leakage of Gas-

There are numbers of Syphons or Water Collectors on the Main pipe- I visited all these- these are quite useless & will give a great deal of unnecessary work when the Mains are in Constant use – one or two (which should have been self acting) would have been ample as the main dips down from the Council House to the South Gate =

To take up & relay all the ½" pipes in connection to this one Main will cost about 100l. – Labor only.

To test the Piping as proposed in my letter of the 4th Oct will cost for labor about 250l.

To make sufficient Gas & test the whole apparatus to Gas holder & then use & expend the Gas in experimenting on the Main & services will cost 150l.

If I be authorised to expend up to this amount viz 500l. I think I can get all into Good Working order –, that is all connected with the west main pipe —

With the experience I shall gain as to the faults &c I shall then be able to give a carefully prepared Estimate for the remaining portion of Gas mains & services.

I shall be glad to have an early sanction, so as to get to work without delay.

Without exposing the whole of the services & a good deal of the main & thus incurring expense you must see that it is quite impossible for me to make a detailed estimate or even make a report of the condition of the Gas works.

I am very sanguine as to bringing all into a good working state. I am

Sincerely Yours

R W Faulkner

Ar 8/10

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6 OCT 77

My dear Colonel.

I send you a second Report from Mr Faulkner — A certain amount of money must be spent, before any knowledge of the real state of things can be arrived at — as every thing is buried out of sight — and must be seen again — If Government can arrive at a decision to trust Mr Faulkner — with putting the Gas Works to rights, as well as to report on their state — a good deal of money would be saved by allowing him

G.B. 13th Oct/77 I.B. No. 143

repair and relay - as he goes on - Each pipe and branch must be treated on its own merits -

Yours Sincerely

Thos Thompson

Cu 8/10

G.H. Faulkner

Cr 8/10

Reports from G. H. Faulkner Esq., Executive Engineer on the Gas Works dated 4th & 6th Oct/77

FOR ORDERS.

E A Ward Col R.E.
Secretary to Government

FOR ORDERS.

Ca 8/10/77

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To,

Colonel E. T. Trasker

Examiner of Cont: Accounts

Fort St. George

G. 5th April 1877
No. 1163
P. W. Department

Sir,

With reference to the endorsement by the Controller of Military Accounts dated 1st May 77, on P. G. Military Department, No. 2409 dated 20th April 1877, I have the honor to report having, in compliance with instructions received from you, completed the work of examining and verifying the accounts of the Fort Gas Works, both as regards construction and cost of working.

2 — As regards the first item, the figures shewn in the report dated 29th February 1876 submitted by Lieut: R. E. Hamilton R. E, recorded in the above P. G. all agree with the estimates and accounts received from the District Engineer Presidency.

3 The cost of making the Gas for the year 1875 has been checked by accounts furnished to me by the late Superintendent

2

of the Gas Works (Doctor King), and the Statements marked A & B attached to the above P. G. have also been found correct.

There has been considerable delay in completing the work of checking these accounts. I received those relating to construction from the District Engineer's Office on the 12th June 1877 but they are very voluminous and I had to make myself acquainted from time to time, with sundry technicalities occurring in the wording of the accounts, and with which, not being familiar with Engineering transactions of this description, I could not be supposed to be conversant.

I have the honor to be,
Sir,
Your most obdt. Servant
Chas Clark

Fort St. George
10th Septr. 1877

From
The Exam^r of Accounts & Asst
to the Contr of Military Accts
Fort St George
No 2567
Dated 10 Sept 1877

Forwarding Report from the Com
C Clark regarding the com-
pletion of the work of ex-
amination & verification
of the accounts of the Fort
Gas Works.

2470

No 2567

Forwarded to the Controller of Military Accounts, with reference to his endorsement and the G.O. both herein quoted.

J.H. [illegible] Colonel
Exam^r of Commiss^t Accounts

Office of Exam^r of Accounts & Asst
Fort St George 10 Sept 1877

613: Oct:/77 IBW: 143

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Office of Controller of Military Accounts,
Fort Saint George, 11 September 1877.

A.

FROM
THE CONTROLLER OF MILITARY ACCOUNTS,

To
THE SECRETARY TO GOVERNMENT,
MILITARY DEPARTMENT.

Sir,

Agreeably to para 4 of Order of Government in the Public Works Department, No. 1163, dated 5 April 1877, communicated under Military Department docket No 2409, dated 20 Idem, I have the honor to report that Mr C. Clark of the Commissariat Examiner's Office was deputed to examine and verify the accounts of the Gas Works, both

as

as regards Construction and Cost of working –

2 — The result of the Examination and verification is stated in Mr. Clark's letter, received under docket of the Commissariat Examiner No. 2561, dated 10 September 1877 – which is herewith forwarded for the information of Government.

I have the honor to be,
Sir,
Your obedient Servant

Colonel,
Offg. Controller of Rily. Accts

Sfp
PG 20 April/77 D 339-340

Military 1877 Dept.

From

The Controller of Military Accounts,

Fort St. George,

To No 5393

The Secretary to Government,

Military Department,

Fort St. George
12 September 1877

No 5139 Transferred
to the Public Works
Department.

(By order

J Michael Colonel
Secretary to Government

G O 5-4-77 Nos 1163 & 1164

G O 13 Oct/77 I D No 1143

Cir 14-9-77.

A.

Dated 11 September } 1877.
Received " — }

Enclosures. 1

Endorsement.

Forwarded with reference to para 4 of Order of Govt P.W.D. No 1163 of 5 April/77 (M.D. docket No 4609 of 20 idem) report of Mr. C. Clarke of the Commissariat Examiner's Office showing the result of the examination and verification of the Accounts of the Gas Works - Fort —

2/

Endorsement of the Military Department No 5139. dated 12th Septr 1877. on letter from the Controller of Military Accounts No A dated 11th Septr 1877.

FOR ORDERS.

EA Bird Colonel R.E.
Secy to Govt. P.W.D.

I cannot make
out from the
[illegible]
[illegible] is the
cost of gas as stated by
me the expense per
1000 37/- ?
~~[illegible]~~ B.C. 12

37 shillings per 1000 C ft
GWL

Fort St. George }
14th Septr 1877. }

FOR ORDERS.

Return to office
[illegible]
[illegible] 14/10

11-9-77

B.A.R.
Wyndale

No 1120 W

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 13th Oct. 77.

Read the following:—Endorsement of the Military Depart. No 5139 of 12th Septr. 77.
Report from G. H. Faulkner Esq. re Executive Engineer on the Fort Gas Works dated 4th and 6th October 1877.

Before sanctioning any expenditure whatever for testing the Gas pipes &c. &c. &c. His Grace the Governor in Council desires that the whole of the original papers on the subject of the Fort St George Gas Works be made over to the District Engineer, Presidency, who will at once employ Mr. Engr. Faulkner upon the task

task of drawing up a report on the cost per 1000 cubic feet at which Gas has hitherto been manufactured in the Fort St George - When this fact has been ascertained the Government will be prepared to pass further orders on the subject.

WL
12.10.

M-s Dept 13-10-77
P.C. ... 20-10-77
D. C. Presidency with papers in original

Letter from Contr. Mily Accts No. 4 with 1 Do: Memo for orders
Engt. Do. No. 1163 & 1164 - 5 April 1877 with 3 notes containing remarks by Members of Govt.
Reports from Mr S. H. Faulkner Dt 4th & 6th Oct/77 - Memo by Ch Engr Dt 8 Oct/77 - Memo for orders Dt 8 Oct/77 - Memo by Chief Engr - No. 3056 - 4 Oct/77 - Telegram from Govt of India - Dt 5 Septr/77

Mis No. 29 W. 5 Septr/77
Memo for orders - Dt 1st Septr/77
Mis No. 1 W - Dt 2d July/77 -
Mis No. 96 W - Dt 12 Septr/77
130 W
131 W } 4 May/77 -

Govt. of {1877} Madras.

PUBLIC WORKS.

To

D.E. Presidency

Dated

Issued

Recd. Encl.

G. O., 13th Oct. 1877, No. 1020 W

Nos. 143-143 A

Fort St George Gasworks

The whole of the original papers on the subject of the — made over to the D.E. Presidency with the view of Mr Ex. Engr Faulkner being at once employed upon the task of drawing up a report on the cost per 1000 cub feet

Sub Dir Regr.
22.10.77