UTI/POW/2#12

1714/P

14/P

STANLEY B' STATION

NEW POWER STATION

TECHNICAL MATTERS

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69

To: The Superintendent.

From: The Colonial Secretary.

Public Works Department,

STAHLEY.

Copy to: S.P.E.

Power Station

In a memorandum setting out proposals for increasing the output of the Power Station, the Superintendent Power and Electrical Department has stated that in his opinion a new building will be required. He writes "in order to avoid reducing output during the installation period, I suggest the erection of a new building adjoining the present one and sited to the north of it. The present building is poorly constructed and not entirely safe".

Please contact the Superintendent Power and Electrical Department and ask him to explain to you which he has in mind. Then consider the question of a new building and comment whether, in your opinion, this can in any way be partly or wholly avoided, i.e. to what extent might it be possible to make some use of the existing building. You need not go into the question of costs apart from including in your reply whether any adaption of the existing building would be cheaper than the alternative of providing space and improved facilities in a new one.

(L.C. GLEADELL)
ACTING COLODIAL SICRETARY

RRB.

Kay - je

Ru 27-8-4

Satimated Coats.

Scheme 'A' Three 750 KW. sets, all existing sets discarded. Scheme 'B' Two 750 Kw. sets, two 200 Kw. sets to be automated.

I tem.	escription.	Schomo *	<u>A</u> ¹ ¹B¹
10	750/445 volt. fully automatic, circatic starting, synchronising, load charing, etc. etc. diesel alternator sets being completely self contained and automatic in every respect. Note: this estimate is calculated from a Sec. 1965 offer through the C.As. for two 539 Kw. sets. Delivery was 44 weeks with price quoted remaining firm for that period.	109,000	72,700.
2.	Preight insurance for item No. 1. is not calculable as shipping specifications are not known. Provisionally allow:-	2,500.	1,700.
3.	atcel framed building with sheathing including provision for lifting beams engine foundations, ducting and freight. Lete: This estimate is calculated from costs of a similar building constructed with contract labour in Stanley by 2		40 ,000.
4.	Installation and modifications to existing control.	2,000.	2,000.
5.	Automation of the two existing 200 Kw. sets.		5,000.
6.	Attendance of Engineer during later part of installation for commissioning trials. Makers estimate minimum of two months, would prefer three. 1965 quote was \$20 per day, allow \$25 per day for 90 days. plus air fare and Darvin voyage. This item is a Maker's recommend, it may not be considered necessary by the Covernment.	2 , 679.	2,679.
7.	Allow contingencies.	1,000.	1,000.
	Totals	127.179.	295,079

Department.

14th July 1969.

No.	1714

MEMORANDUM

4

It is requested that, in any referto this memodum the above number and date should be quoted.

22nd, October,

19 69.

To:

Colonial Secretary,

From: Superintendent of Works, P.W.D.

23001 1908

STANLEY.

Stanley, Falkland Islands.

SUBJECT :-

POWER STATION.

Reference your Memo's of 6th. August & 21st October, 1969, Power Station Improvements.

There is evidence of deterioration of the existing building and it is certainly poorly designed for it's purpose.

The justification for a seperate building is due to the fact that although the machine bases in the existing building are standing up to it remarkably well, the building itself is suffering from sympathic vibration as a result of being on and adjacent to rock foundation, and to ensure any improvement would mean major structional alterations and I am pretty sure the ultimate cost involving protection of plant, division of the building, expensive jacking and shoring and reconstruction would go a long way towards the cost of a seperate building properly constructed with load bearing stanchions and beams.

The possible use for the existing building could be as a switch and instrument house, thus reducing the size of the proposed building which need only be adequate for the new generators.

Supt. of Works.

Ble 3/1/70

MEMORANDUM

12

It is requested that, in any reference to this memoadum the above number and date should be quoted. Dep Mo SLANDS

28th. January. 19 70.

The Colonial Secretary,

Secretariat,

STANLIY.

Supt. Power & Electrical Dept.

Stanley, Falkland Islands.

Subject :-

Stanley Power Station.

I have enclosed for your consideration and possible amendment a letter to the Crown Agents the purpose of which is to obtain their views on the subject of Power Station plant replacement and to obtain firm quotations and delivery dates. At least it will start the ball rolling from the technical advise, costing and supply angle and enable us to go ahead directly the problem of finance is solved.

If you consider this course advisable at this time and you consider that no amendments are necessary to the letter then it could go as it is, I suggest in view of what is likely to be a sizeable indent it my be better if you signed the letter. I have accordingly enclosed a copy for your file which I have assumed to be No. 1714. 'Electrical Dept'.

Note. Drawis A & B & the inchex to them Sent to CAFT with p.

Supt. Power & Electrical
Department.



Dear Sirs,

Extension and Automation of Stanley Power Station

We are giving consideration as a matter of priority to the possibility of replacing some of the original generating plant installed in the Stanley Power Station and automating it. The purpose of this letter is to give you the information we assume you will require to:-

- (a) Give a critical survey of the proposals we have in mind.
- (b) Obtain any counter proposals you may have.
- (c) Obtain through your offices quotations for plant, buildings etc. necessary to complete the project.
- 2. The present station as shown on drawing 'B' was completed early in 1951. The building is constructed of concrete block walls which support steel roof trusses spaced twelve feet apart, there are no buttresses or girder supports to the roof trusses.
- 5. The original machines are three Blackstone EPVS 150Kw. 600 rpm. diesel engines driving Crompton Parkinson alternators wound at 400/230 volts with a frequency of 50 cycles. These alternators feed, via 400 amp Crompton Klad 'A' OCBs. into a Crompton Parkinson switch and alternator control board. Outgoing feeders and the general arrangement is shown on drawing 'A'. In 1959-60 two Mirrlees TL6 Brush 196Kw. 400/440 volt 50 cycle sets were acquired locally and installed, their voltage control was modified to suit that of the original sets and they have operated successfully in parallel with them.
- 4. For some little time now consideration has been given to the replacement of the Blackstone sets due to the increases in electrical demand and the fact that these machines are showing increasing signs of wear as was evident recently by a fracture in a main cylinder housing.
- 5. Annual current output is 2.4 million units, increasing by 140% over the past ten years. Naximum and minimum demands are 650Kw. and 150Kw. respectively. The maximum is estimated to increase to 850Kw. within the next ten years with an average demand in the daytime of 700Kw. These figures would be exceeded if any major development took place.
- 6. Proposals. It will be seen from the layout on drawings 'A' and 'B' that there is no space for any additional generating set in the present station. It would not be practical to remove one or more of the Blackstones to give space and at the same time maintain continuity of supply during the installation period which may well be prolonged.

- 7. An extension to the present building is proposed as shown in broken lines on drawing 'B'. Approach is from the north, the south and west sides are bounded by a quarry face and fuel storage tanks and on the east boundary there is an access road to the back of the station.
- 8. The proposed building extension might enclose the existing office shown at 5. and be constructed of the usual steel frames supporting similar roof trusses all sheathed in alloy. Space has been allowed for an additional 3rd set should this at some time be necessary either by removing the office at 5. or using the vacated space now taken by the Blackstones. Ingine lifting beams would be necessary in line with the new sets and double entrance doors built in at the north end of the new extension sufficient in size to allow entry to the largest pieces of machinery.
- 9. The proposed new sets two in number would each be of 750 Kw. 400/230 volts 50 cycle diesels of 600 rpm. fully automatic, airmatic starting, synchronising, load sharing etc. etc. being completely self contained and automatic in every respect with radiator oil and water cooling.
- 10. The existing TL6 Mirrlees Brush 196 Kw. sets would be required to be automated to the same degree to bank up with the new sets. The station being entirely automatic, attended only during working daytimes for necessary maintenance. The existing distribution switchgear as shown on drawing 'A' may need some modification or replacement as a result of automating the plant.
- 11. A schedule giving type, numbers etc. of the existing plant are shown on the index to drawings 'A' and 'B'.
- 12. I trust that the enclosed details although concise are comprehensive enough to enable you to assist in this initial stage as requested at paragraph (a) (c) of this letter. I look forward to receiving your comments and quotations.

Yours faithfully,

(Sgd) J. A. Jones

COLONIAL SECRETARY

Copies to: SPED 2459

I brome Agents

THE FOLLOWING REFERENCE AND THE DATE OF THIS LETTER SHOULD BE QUOTED IN COMMUNICATIONS.

57 25

CROWN AGENTS

FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS

Q.367/36

Telegrams: "Crown, London-S.W.I" Telephone: Abbey 7730 Telex No.:24209 916205



4, MILLBANK, LONDON, S.W. 1.

13th March, 1970

Dear Sir,



Extension and Automation of Stanley Power Station ____

Further to your letter reference number 1714 of the 28th January, we have studied with interest the very clear and concise details provided.

- 2. For reasons which are outlined below, an appreciable degree of engineering of the project will be necessary. The Crown Agents' Advisory Department will be happy to undertake this work for which our fee, additional to the Crown Agents' normal rates for procurement and inspection, would be 5% of the f.o.b. cost of the plant and the structure. This charge is based on our standard rates for "Preparation of detailed designs for mechanical and/or electrical plant systems and services" and including in this instance, the design of the building, plant foundations, etc.
- 3. Dealing briefly now with the salient points of your proposals:-

(i) Entirely automatic operation

Attendance to be only during working daytimes for necessary maintenance. We understand from this that the plant will be required to operate unattended for periods of up to 60 hours i.e. the week-end period.

For layer purods then this,

The three manufacturers in this country G.E.C/English Electric, Nawker Siddeley/Mirrless and W. H. Allen & Sons have all confirmed that automation to this degree can be provided but warn that it could prove very expensive and complicated to maintain. That there will be a considerable difference in rating between the existing and the new sets adds to the complication. Also, Mirrless are in some doubt at present, whether the TL6 sets, now no longer made, can be modified for automatic operation.

(ii) Proposed rating of new sets.

Your letter does not specify whether the sets are to be normally aspirated but we would point out that 750 kW sets of this type are no longer made in this country. Furthermore, G.E.C/ English Electric Diesels cannot offer speeds less than 750 rpm for outputs less than 1.2 megawatts.

Mirrless Blackstone have a 593 rpm, 740 kW, 16 cylinder, twin banked, turbo charged set with gear driven 750 rpm alternator.

W.H. Allen have a 600 rpm, 684 kW, 6 cylinder, single bank turbo charged set.

In the event that the Mirrless TL6 sets can be modified for automatic working it may prove disadvantageous to purchase the new machines from another manufacturer.

The Colonial Secretary, Colonial Secretary's Office, Stanley, Falkland Islands. /- (iii) Maximum and minimum demand.

- Rophy at 32

The Colonial Secretary, Falkland Islands

(iii) Maximum and minimum demand.

Present figures are given in your letter as 650 kW max. and 150 kW min. The maximum is estimated to increase to 850 kW within the next 10 years but an estimate of the minimum is not given. Assuming, however, the existing proportions are more or less maintained we would suggest that 500 kW sets may prove more economical. At this stage they would be a better match for the combined output of the two TL6 sets and, when the time comes for the replacement of these, a third 750 kJ set could mean a potential night output far above that required. In this regard we would mention the inadvisability of operating sets of this rating for long periods at much below 50% of full load.

We would also mention that W. H. Allen can offer normally aspirated 600 rpm sets, 6 cylinders 456 kW and 8 cylinders 608 kW. Mirrlees have a single bank 600 rpm, 478 kW set but this is both turbo charged and intercooled.

(iv) Switchgear

Our present view is that a new alternator switchboard will be necessary, particularly so if automatic control is to be extended to the four machines.

(v) Power station design.

We agree a third new set could be accommodated in place of the time expired Blackstones but feel it would be preferable to site it alongside the other two thus taking advantage of the engine lifting beam and, when the TL6 sets are removed, concentrating all generation in one building. We would enquire whether you have considered siting the extension east west alongside the present building? Whatever the situation we would recommend the inclusion of a maintenance bay thus facilitating the use of the crane or lifting beam.

- 4. Finally one small point, we notice that at para 3 of your letter, 1959-60 is given as the installation date of the TL6 sets whereas the index to drawings A and B states 1951. We take this latter date to be the Blackstone date.
- 5. We look forward to your reply.

Yours faithfully,

(A. L. McClure)
Director of Advisory Services

C.S.

After studying the Crown Agents letter I have reviewed my original proposals, they are as I have written in the attached preliminary draft letter to CAs. After discussion with you on all matters concerning the project you will no doubt find there are many amendments to be made. However I thought this was the best course to proceed slong. Parhaps you will direct accordingly.

30

propose & issue to betievo as aumilied. Theare Sourince of if you copies with it pairs it to SIL with he guest for him to have it typed wearhest for my bynature. It want not, whateen happens, him During of 24 April + baco. begins on 1/4 + is likely to last int 12+ Hon. 7.

ACS. 31
S.C. annahijs

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No. (It is requested that, in any reference to this letter, the alge Number and the quoted.

COLONIAL SECRETARY'S OFFICE.

STANLEY, FALKLAND ISLANDS. 17th April

Dear Sirs,

Extension and Automation of Stanley Power Station

Thank you for your letter of the 13th March. Your observations and proposals have received further study and after considering all of the information you have given the following comments and amended proposals are put forward as a basis for finalising the overall specifications for the project.

- The plant would be fully automated and unattended for 16 hours over a 24 hour period with the exception of week-ends when it would be unattended for 44 hours. However should this extended period cause undue complications, a visit could be made at 16 hour intervals for minor works, e.g. replenishment of lubricating oil, possible re-setting of controls and visual inspection.
- 3. The purpose of specifying automatic operation is to effect a saving of £3,000 (less the cost of operation of automotic devices) a year on staff scleries. Should it be considered that the recurrent cost of this type of system will approach or exceed this figure then automation will not be economic and will not be adopted. Neither will it be adopted if you advise against it on the grounds of possible operating difficulties and maintenance. Under either of these circumstances the more standard safety alarms and controls only will be fitted.
- Referring now to your observations on the type and capacity of the replacement plant. In view of the information that the TL6 Mirrlees 200 Kw. sets are no longer made, that there may be difficulty in automating them and of the possible difficulties in operating them in parallel with sets of the order of 750 Km. capacity, we consider it might be advisable to replace the complete plant. This we believe would also simplify automatic operation and assist towards standardising all equipment.
- We suggest the installation of fully automated sets manufactured by W.H. Allen. The espacities and types shown below have been taken from your letter and the machines identified from the catalogue "The British Diesel Ungine" issued by the British Internal Combustion Engine Manufacturers Association. You will note that in our choice we have increased our overall capacity by 70, and with the combination selected should be able to exceed our present peaks with sufficient reserve for periods of overhaul of the largest machine and have an economical rating for periods of minimum demand. The machine types and capacities we propose are:-
 - 684 Kw. 1,026 hp. at 600 r.p.m. Single bank, turbo charged type 6BS37-D. Engine.
 - 456 Kw. 678 hp. at 600 r.p.m. One Single bank, normally aspirated, type 6837-D. Engine.
 - 312 Kw. 470 hp. at 500 r.p.m. Single bank, normally aspirated, type 5837-D. Engine.

The Crown Agents for

Oversea Governments and Administrations,

4. Millbank.

LONDON, S. W. I.

14/136

- all of the machines quoted above are of the same type and it is assumed that their spares would be interchangeable.
 - The station supplies a general public and service load with an average overall power factor of 0.8 lagging. Loads worthy of special mention are induction motors up to 100 hp. and silicon rectifiers supplying a D.C. motor load to space research antonnas. Automatic voltage and governor controls should be capable of maintaining stability to within the hornally accepted limits for a public supply undertaking. Automatic frequency control to a time standard is desirable but if unduly costly chould be omitted. Under present conditions frequency control is well maintained by hand using a pulsynetic controlled electric clock in circuit with a comparator dial, this system may possibly be incorporated in the new arrangement.
 - Switchgear will consist of alternator control panels with necessary automatically operated OCBs. and metering, over-riding hand control will also be provided. A separate distribution panel fed from the alternator panel will be required and should comprise:-

1,000 amp OCB. One

400 cmp OCBs. Two

300 amp fused switches. THOUR

- Ammeters should be fitted to each of the CCBs. and one only to the combined fused switches. This distribution panel was not included in the original specification and it's inclusion is due to the assumption that all plant will be in the new wing. Provision of course should be made on both panels for possible future extensions.
- The orientation of the new building wing to the north and south was planned in order to place the exhausts and cooling radiators out of sight to the west where there is rising ground. If the building ren east and west parallel with the existing buildings, the embausts and radiators would need to be taken out on the north wall; this would necessarily be the front of the building and would tend to If machines of types and capacities now suggested are be unsightly. to be installed then the original layout will need amonding accordingly Space will be left sufficient to accommodate one other to suit. machine, and as you suggest provision should be made for a maintenance bay to facilitate the use of a crane or lifting beas.
- With regard to the observations in paragraph 4 of your letter concerning the installation date of the Mirrless TL6s., the drawing you noted was dated 1951. This was the date the original purchaser, (CDC) installed them on one of their projects here. later acquired them and installed them in 1959-60.
- We are currently awaiting confirmation from the Ministry of Overseas Development, to whom application has been made to finance the project, of their approval of it. Please arrange to copy to the Ministry correspondence between us up to the stage when implementation of the project is authorised and aid funds allocated to it by the Meanwhile this letter is being copied to the Ministry for Ministry. the attention of Mr D.H. Braun.
- 12. I would be pleased to receive any further comments you may have as a result of the amendments contained in this letter on our original proposals.

Yours faithfully,

Copy to: ODM (for attention D.H. Braun)

w. SPED

36

67/36

Telegrams: "Crown, London S.W.1" Telephone: 01-222 7730 Telex No. 916205 15 JUL 1970

FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS

Q. DEPT.

4, MILLBANK,

LONDON, S.W. I.

21st May, 1970.

Dear Sir.

Your Letter Reference 1714/0 Date 17th April 1970.

Extension and Automation of Stanley Power Station.

Thank you for your letter of the 17th April concerning the above project and confirm that we have now had preliminary discussions with Messrs W. H. Allen.

The economics of automated plant, as we feel at present unlikely to be attractive but we shall be writing to you again as soon as more information becomes available.

Yours faithfully,

for the Crown Agents.

S.P.E.,
To see pl.

\$\int_{\chi.7.70.}\$

The Colonial Secretary,
Colonial Secretary's Office,
Stanley,
FALKLAND ISLANDS.

DATE OF THIS LETTER SHOULD BE QUOTED IN COMMUNICATIONS.

Telegrams: "Crown, London S.W.I"

The Suthinider Mould see CROWN AGENTS

FOR ERSEA GOVERNMENTS AND ADMINISTRATIONS

'Q' Department,

4, MILLBANK,

LONDON, S.W. I.

9th June, 1970.

Telex No. 916205 Dear Sir.

Q.367/36.

Telephone: 01-222 7730

Extension of Stanley Power Station.

Further to your letter No.1714/O of the 17th April 1970. We have pleasure in enclosing a copy of Messrs. W.H. Allen Sons & Co. Ltd. letter GCB/R1C D.0096L and a copy of their catalogue AP - 2018-A-

In general, we are in agreement with the proposals but would particularly draw your attention to their remarks on the complications, cost and limitations of automatic operation. In view of paragraph 3 of your letter we feel you may not wish to consider this aspect further.

In our view the medium speed generating plant offered by Allens is very well suited to your need but it is of course, likely to prove more expensive in first cost than sets operating at higher speeds. We would not however recommend the latter for the sizes and duties in question.

As mentioned in your letter, we have been in touch with Mr. D.H. Braun of O.D.M. and understand that negotiations on funds are proceeding. It appears there can be no question of technical assistance and that our fees, detailed at para.2 of our letter of the 13th March, would therefore become part of the capital cost of the project. We shall be pleased therefore to receive your formal instructions to act as consultants, if this is your wish.

c.c. Mr. D.H. Braun., O.D.M.

Yours faithfully, Scall

The Colonial Secretary., Colonial Secretary's Office. Stanley, FALKLAND ISLANDS.

L. Jackson Asst. Chief Engineer for the Crown Agents

G.S.

OS 103A CAL 67

1564/XVII

28th July 1970.

Dear Sir,

I should be grateful if the undermentioned passages could be arranged on behalf of Mr. E. C. Gutteridge.

Darwin N.15 (north) ex - Stanley 20th August 1970.

Darwin N.19 (south) arriving Stanley 7th October.

and connecting air flights Montevideo/U.K. and return.

Yours faithfully,

(sgd) R. Browning

COLONIAL SECRETARY.

The Manager,
Darwin Shipping Ltd.,
STANLEY.

Rac 52

TELEGRAM.

From ^M	From MCCLURE CORWN AGENTS					
<i>To</i>	OLONIAL SECRETARY ST	ANLEY				
Despatched:	30th July,	19	- 70	Time:		
Received:	1st August,	19		Time:		

48.

Q367/36 Your telegram 29th visit Gutteridge most welcome but weeks duration adequate. However period 21 August to 16 September not convenient

McClure Crown

P/L : ARA

South ex Montevideo 3 Oct South ex Montevideo 21 Oct Provisionally booked.

EARWIN SHIPPING LIMITED

Directors: R.C. Vinson, XXXXXXXXXX A.SLOGGIE

Telegrams: "Fleetwing Portstanley."

STANLEY,
FALKLAND ISLANDS.

30TH JULY, 1970

THE COLONIAL SECRETARY, SECRETARIAT, STANLEY.

/REP.

DEAR SIR,

MR. E.C. GUTTERIDGE

50

THANK YOU FOR YOUR LETTER REFERENCE 1564/XVII DATED 28TH INST..

WE CONFIRM THAT THE BOOKINGS ON 'DARWIN' ARE IN ORDER AND THE FLIGHTS EX-MONTEVIDEO-LONDON-MONTEVIDEO ARE BEING ARRANGED, UPON CONFIRMATION OF THESE, WE SHALL INFORM YOU.

Yours FAITHFULLY,

FOR DARWIN SHIPPING LTD.

70

Dear Sir.

This is to confirm the passage arrangements made on behalf of Mr .C. Gutteridge by telephone this norming, namely:

By Premium Class on R. W.S. Darwin:

To cancel the passage on Voyage M.15 (north); and re-book on Voyage N.17 (north) or-Stanley 14th September. To retain the cassage on Voyage W.19 (south) ex-Contevideo 3rd October, but with an ontion to transfer to Voyage M.21 (south) er- ontovideo 21st October.

Onward passages to Britain should be adjusted accordingly.

Yours taitimully. (R. Browning)
for COLOUTAL ENCRETARY looped to Mr Guttering Lee 54

The Hamagor, Darwin Linipping Mimited.

PARWIN SHIPPING LIMITED

Pirectors: R.C. Vinsen, XXXXXXXXX A. SLOGGIE

Tolograms: "Fleetwing Portstanley"

STANLEY,
FALKLAND ISLANDS.

7TH AUGUST, 1970

THE COLONIAL SECRETARY, SECRETARIAT, STANLEY.

/REP.

DEAR SIR.

MR. E.C. GUTTERIDGE.

THANK YOU FOR YOUR LETTER REFERENCE 1714/0 DATED 5TH AUGUST, 1970.

THE CONTENTS HAVE BEEN NOTED AND ONWARD AIR BOOKINGS HAVE BEEN REARRANGED AS FOLLOWS: -

EX-STANLEY ONTHE 14TH SEPTEMBER 'DARWIN' VOY. N.17 AND EX-MONTEVIDEO ON THE 18TH SEPTEMBER BY FLIGHTS NO. SC114/SR203/SR812 MVD/RIO/GVA/LON ECONOMY.

THE RETURN TRIP IS AS FOLLOWS WITH AN OPTION TO TRANSFER TO VOYAGE N.21 SOUTH EX-MONTEVIDEO 21st October.

EX-LONDON ON THE 1ST OCTOBER BY FLIGHTS NO. SR807/SR200/SC115 LON/ZRH/GVA-DKRRRIO/MVD ECONOMY.

Se be apy to Wr. a.

Yours FAITHFULLY,

DARWIN SHIPPING LTD.

1

GOVERNMENT TELEGRAPH SERVICE

1714/0

FALKLAND ISLANDS

SENT

WAP 15148-821 585968/704663 500 pads 9/69 Grp.782

Number	Office of Origin	Words	Handed in at	Date
	STAULTY			3.11.70
o Lan Cron	n London sui			HO a/c

No 207

My 205 Stanley Powerstation Project stop Withhold action until formal notification given to you from FCO

SECRETARY



TELEGRAM SENT.

From GOVERNOR to SECRETARY OF STATE

Despatched: 5.11.70 Time: 1130 Received:

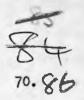
Time:

Ho 25805

Your unnumbered telegram of 2nd November. Fower Station . eply embodying revised proposals by letter 10th November. Leanwile Crown has new costings and it is understood these are acceptable in principle to our Levelopment Division. As c sts only firm up to 8th December request you scrutinise in consultation with Gordon of Development Division in anticipation by letter.

Jones

PL: JE



Dear Sirs,

New Stanley Power Station Project.

Please refer to your letter Q 367/36 of 4th September and to the subsequent visit of Mr E. C. Gutteridge, Superintendent of our Power and Mectrical Department.

- 2. The principle and plans agreed between Mr Buss and Mr Gutteridge together with the budgetary estimate of #140,000 to complete the project are accepted. This information, together with details of what was agreed during Mr Gutteridge's visit has been transmitted to the Foreign and Commonwealth Office with the request that upon formal approval by them they will authorise you to go ahead with the contracting.
- 3. On receipt of such approval your Advisory Department is accordingly commissioned to proceed with planning and specifying, and to arrange with manufacturers for the delivery of all plant and building in order of priority to allow:-

Foundations to be laid,
Building structure delivery,
Machine and plant delivery,
Engagement of creating personnel.

- 4. The building, machinery, plant etc. as specified may be modified without reference back, but if major changes in what has been agreed are recommended by your advisory staff the approval of the Development Division of the Foreign and Commonwealth Office should be obtained and this Government kept informed.
- 5. I enclose a personal letter from Mr Gutteridge for Mr Buss setting out additional technical information.
- 6. I am advised by Mr Gutteridge that there should be no difficulty in committing the 1970/71 aid allocation of £50,000 before 31st March 1971, and that you are fully aware of the need to ensure that this target is attained.

Yours faithfully,

(sgd) L. Gleadell.

AG. COLONIAL SECRETARY.

(It is requested that in any referto this letter, the above Number and the date may be

quoted.)

COLONIAL SECRETARY'S OFFICE, STANLEY, FALKLAND ISLANDS,



7th November

10 70.

Dear Sirs,

New Stanley Power Station Project

Further to my letter 1714/0 of 6th November 1970, on the above subject, I enclose herewith notes on the building plan since received from the Superintendent of the Power & Electrical Department, for the attention of Mr Buss. Would you kindly forward the enclosure appropriately?

Yours faithfully,

S.

for COLONIAL SECRETARY.

The Crown Agents for
Oversea Governments and Administrations,
(Q Department)

4, Millbank,

LONDON, S. W. I.

BU 1/12

GOVERNMENT TELEGRAPH SERVICE

99

FALKLAND ISLANDS

WAP 15148-821 585968/704663 500 pads 9/69 Grg.767

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			19.1.71
o FT'T PRIOR	ITY CROWN LONDON SW1			HO a/c

No 20



Yourtol 0367/36 15th Jenus my letters not yet received earliest possible written unever early February step. Agree delivery December sailing preferable step. First priority is despatch of building engine foundation and ducting plans.

Gutterid@o

C.S.,

For your information, following telegram was received from Buss, Crown Agents on Sunday 17th Jan.

"Q367/36 Allens seeking decisions outstanding items by end of month. We will make these but hope to receive your reply my letters 25/24th December beforehand. Allens have reported Brush cannot confirm delivery in time for September sailing. Provided fixed price and extra payments not involved I suggest better aim for next sailing. This will probably assist general planning if you agree"

Buss Crown.

Following reply sent, Monday 18th Jan.

"Yourtel Q367/36 15th January Letters not yet received earliest possible written answer early February. Agree delivery December sailing preferable. First priority is despatch of building, engine foundation and ducting plans.

Gutteridge.

Il For R in New Pomer Obetion & To

Saling be of Exco. J.

77

You mentioned to me recently the possibility, in the context of Circular No. 4/1969, of putting on a radio programme the primary object of which would be to remove various misconceptions under which the public are labouring in connection with this project.

You will recall that Circular No. 4/1969 stated that Clapp would be collecting material for these special programes. Perhaps the best way of dealing with your present proposal would be for Clapp to interview you? If this is what is eventually decided, I would want the programme to be taped, and to have the opportunity (as also might the Governor who has considerable experience of Information work) both to see the script and to hear the tape before it goes over the air. However, the first step would be for you to discuss with Clapp and then for you to discuss with me.

(J. A. Jones) Colonial Secretary

9. 10)

E. C. Gutteridge, Esq., Stanley.

1/29/

102

ZCZC 89 CW04 29 LONDON 51/50 28 1000

ETAT

SECRE TARY

PORTSTANLEY

FOR GUTTERIDGE ELECTRICIAN Q4367/36 POWER STATION

STRUCTURE NOW ON ORDER SITE SURVEY DETAIL AS PARA

14 MY LETTER 22ND DECEMBER URGENTLS REQUIRED STOP

GRATEFUL ON ACCOUNT POSTAL DIFFICULTIES YOUR TELEGRAPGS

WHEN MAY EXPECT THIS AND REPLIES LETTERS 22 AND 23

DECEMBER AND TELEGRAM 15 JANUARY

BUSS CROWN

COL Q4367/36 14 22ND URGENTLS TELEGRAPGS 22 23 15

Pk

1. p.u. draft hepty. (I don't know put what they
expect as to to about getting an auseum to them they the GPO

(trike. Swim?)

NNNN

103.

It is requested that, in any refer-ence to this memorandum the above number and date should be quoted.

30th January, 1971 •

The Colonial Secretary,

Secretariat.

STANLEY.

Stanley, Falkland Islands.

Supt. Power & Electrical Dept.

SUBJECT :-

New Power Station Project.

By the last incoming mail of RMS Darwin I received a letter from Mr D. Buss of the Crown Agents Advisory Dept. This was the letter referred to in his telegram of the 15th of January and for which an answer on a matter of the civil -100 works was required. The first stage is the laying of the foundations for which I am awaiting a foundation drawing and specifications. It is most desirabable that these arrive before the departure of S.F.W. in early April, in order that he may lay out the job and place the contract so that work may proceed and be ready in time to receive the building I drafted a telegram as below for your approval, structure. this should enable the necessary drawing to be drawn up and despatched. However with the aggravating postal strike this will now be held up. I believe there is still telephonic communication, it has been suggested that the information contained in the draft telegram might be telephoned. ?.

X. Draft telegram to Crown Agents.

Yourlet 22nd December 0367/36 Para 14 site levels correct as direct levels stop Highest point correct at two decimal point five five stop SPW favours same floor level which is six inches above highest point shown as bench mark stop Suggests pillar and beam foundation with beam under load bearing stanchions with intermediates stop plenty rock backfill available stop Location minimum five feet from office line stop existing road shown as shingle outline and will meet engine entrance new building stop Surface drainage necessary on elevation DD stop please endeavour to send foundation plans to arrive before midmarch letter follows on other matters

Supt. Power & Electrical Dept.

C.S.,

The above was written by S.P.E. before he seceived the file a lilegram al 102 with your mile. I have spoken to lim about it. The draft telegram above provides the information requested in the telegram from Crown below. We send ina Western pl.

1001. by working of Johnst SRC.

I/C / prefu Mis proposal for him to sp. with Burs of phone. It's cheaper - provided the cull is hestwiked to 3 minter. Will PE House arrive.



TELEGRAM.

From	BUSS CROWN		********	
<i>To</i>	SECRETARY PORT STABLEY			
Despatched :	28th January	<i>19</i> 71	Time:	1234
Received :	4th February	<i>1</i> 9 71	Time:	1555

Via Western

For Gutteridge electrical 0367/36 Power Station structure now on order site survey details as para 14 my letter 22nd December urgently required. Grateful on account postal difficulties you telegraph when may expect this and replies letters 22 and 23 December and telegram 15th January

BUSS CROWN

[Abon is a superial of 102 + was received win western lumin.

Replyal 104]

PL: JE

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

_	_					
		0	100	TR. T	700	

15148-821 585968/704663 500 pads 9/69 Grp.782

SENT

Number	Office of Origin	Words	Handed in at	Date
T-		-		8. 2. 71.
MF CROW	n London S.V.l. (Tel	01-222 7730)		Hoa/c

No. 26 Please phone to Mr Buss Q Department Crown Agents reference Q367/36 stop Please endeavour to despatch foundation plans with Miss W.A. Gunn Overseas Development Ministry reference RC/P57732 leaving for Falklands 1st March

GUTTERIDGE

C.S.,

On the last incoming Darwin mail of the 26th January, there was a fairly lengthy letter from Buss on matters connected with the Power Station Project and to which his subsequent telegrams referred. His outstanding questions were answered in my telex sent on the 1st. February. Attached is Buss's letter together with his budgetory breakdown. I have answered all of his queries. You may wish to peruse, although in the main the text is on technical matters. If you approve, the letter with drawings attached should be sent by first north bound airmail. I have also enclosed a full copy for your file, 1714/0.

SPED. 14th Feb. 71.

SPED. 14th Feb. 71.

SPED. 14th Feb. 71.

Some view as you about "a L'aporth" (= £10,000) "of tan."!

The Spanes position has beed looking at. (.1. has wond to check the tax bitnation for executing Steff; etc. Phu C.T. has hed the sportant of comment I shall went the popular back to show to H.E. (inthe the title).

The Spanes position has been something the spans back to show the spans back to show the popular back to show to H.E. (inthe the title).

It would be as well to delete the h'egentl reference. Cos a spoker ensurain it is alright but night be mornlespredu in a wouther form. especially on her are racrains someone also money. The tan position seems stranglesformand for now of the shaff concerned hier he receded in F. I for rea month which is the menimum recessary, under the O.T. awangement, before and can get our hands on their money.

Can the underinable last 15 bords of your cerail paugraph be evaned, so that it ends with the works ... within the original estimate. for to the bee. The to be for me to

IS. To you aunding 5.

1. 29/2

WE hay hish to be attacked promisely of

(1) letter from NBuss, (AA, to STVE;

(2) seeks from PP+ E (yet to drive); (3) hunter coming the papers; off i.c.w. the new power station, before PEs deply issues. The

SPE

hi Bass Letter to be pred. Em letter hi dept to him to irone.

SC.

I have removed the Berni lette to my fet.

At B.C. is the refly now cleared through HE. & C.S.

Le disfatched next hothbound airmant, there is
also a copy for the fet. If the drawings attached

to the copy and unrecessing but he their fet thy

may be taken off and obstraged, I have shephink.

8

B. 10/2/21

Siener fiere

STANLEY,

Copy for file.

Ref: Q367/36

FALKLAND ISLANDS.

4th February, 1971.

Stanley 'B' Power Station.

December 1970. to which you referred in your subsequent telegram of the 15th January 1971. I noted that an immediate reply was necessary in respect of your para.14. regarding building lines, levels etc. I drafted a telegram in reply but unfortunately the aggravating postal strike was affecting the despatch. On receipt of your 2nd telegram I was able, through the good offices of the Radio and Space Research people here, to get a telex message phoned through to you via their offices at Slough, I later received confirmation that it had in fact reached you. I am hoping from this that Mr Weaver will have sufficient information enable the foundation plans to be drawn up and despatched. The urgency here lies in the fact that the Supt. of Public Works will be away from the Colony from early April and I am anxious that he will place the contract for the building construction and lay out the job before he departs. In the meantime an opportunity arose, at very short notice, to connect with an outgoing mail to England via Chile. I immediately typed and despatched a condenced version of this letter, with diagrams, on an airgraph form.

You will no doubt be aware that there is now a contingency sum, the project fund having been increased to £150,000. However we will try to work within the original estimate.

I have enclosed SPWs. answers to your para. 14 in confirmation of my above mentioned telex. I had a word with SPW. in regard to building costs, but without taking quantities off he could not give a firm figure. The indications are that they will be of the order of £5,000. If this is near correct then the total will not be pushed out on this account.

Referring now to the seperate paras. of your letter that require comment.

1. Building Internal wiring and fittings to be supplied by you to suit the layout with provision only for outside lighting, the fittings can be supplied locally.

3. Fuel and

by Allens to suit your agreed layout.

Fuel. If you will refer to the enclosed drawings on the subject you will see my proposed arrangement. I have in mind that the three machines might be fed from a common rail, entering the building through the radiator pipe ducting, with valves as shown. There would be dual feeds from the daily service tank which would be situated alongside the existing 7,000 gallon secodary storage tank. I suggest a prefabricated metal structure supporting a 500 gallon tank.

Air piping. This will of course be supplied

The/

The fuel supply to the daily service tank might be from a fuel transfer pump sited in the centrifuge hut drawing from the cent trifuged oil in the 7,000 tank, this pump being under the control of a float switch in the daily service tank. This I might mention, is how the present fuel system works. After 'B' Station is commissioned, one of the dual fuel lines could be transferred to the existing 500 gallon daily service tank, thus duplicating the fuel supply. I think a fuel meter highly desirable in one line only, in order that fuel consumption can accurately be related to energy output as measured on the Kw.hr. meter. The advantage of the above arrangement is that we keep the station walls clear and there is no spillage within. If you do not agree please proceed on the conventional lines.

Radiator make up.

This water make up tank will be supplied from rainwater collected from the roof as as shown. I assume make up will be quite small but there is ample clean rainwater. I suggest two make up tanks each feeding the engines (a duplicate system). For first filling a seperate pipe could be laid. The fittings required would be the tankage and supports and the piping to the radiators to suit the layout, the piping from the main storage to the service tanks would be supplied Trace heating is used on the existing radiators and there is sufficient in stock here to cater for the job.

4. Stellite valves and rotators.

These were recommended by the maintenance Engineer at Allens during my second visit and would appear to be a sound investment.

cleaning,

5. Turbo charger Again a recommend by the maintenance Engineer. I understood the cleaning apparatus allows the impeller of the turbo charger to be cleaned without dismantling.

6. Radiators.

The reduction in power achieved by fitting the Coventry radiators at the additional cost sets the balance economically and in overall efficiency. I dont think it wise to go beyond this.

7. Spares.

I suggest Allens might guide on the spares question. I think it would be well to start with a fair stock, electrical spares should not be lost sight of either, I had in mind that Brush's views might be obtained on AVR spares. In any event their Commissioning Engineer may wish to have on hand apare units as I believe from discussions at Brush, the critical stage can be the initial stage when the setting up takes place, you may wish to enquire.

8. Alternators.

Items 11-14 on the budget summary you enclosed were recommended by Mr J. Raven, Chief Development Eng. Rotating Machines at Brush. Item 12. under-voltage protection was the only doubt as being necessary or even desirable.

9. Hv. Switch gear.

Energy metering is important it may be either by summation or single meters, a summator would be be desirable but cost might exclude. The frequency control equipment will present no problem in transferring. I suggest a space is found for it nearby the remote governor speeder motor controls. The three dials; Frequency, standard time and com-parator, would fit into a space 2ft. x 1ft. x 9 ins. comfortably.

10. Moutral earthing. You have in hand especiallyy in regard to disconnection under fault conditions.

Installation Trolley. 114 Ecuioment.

8 in. clearance will be sufficient. Engine jacking brackets. Allens Erector might wish to consider the need to load crated engines from the jetty to the trolley, as the vessel will in all probability require to off load the three machines at the same time. The engine crates may need to have traps cut, in order to reach the jacking points on the engines without un-crating, uncrating would be undesirable on a sea swept open jetty. A minor point but worth mentioning is to ensure that the jacks and the brackets are available, possibly in the engine crate and able to be easily got at.

Capling.

12. Distribution Please see attached sketches showing present The existing cables I and proposed. will leave in the foundations as it is not at all practical to get them out. They will be duplicated entirely along the runs shown in the second drawing, with, if time allows connections to be made to the two Nv. and two Lv. distribution poles thereby livening up from 'A' to the 'B' OCB distributors which will be isolated. The underground Hv. cable to the underground joint must for the time remain connected to 'A'. The feed for the latter will be via the temporary link shown connected to the spare Hv. OCBs. in A' and 'B' stations. Likewise there will be a temporary Lv. link. These tempoary links are also an insurance that in the event of the permanent new cabling not being laid in time for the commissioning, there need be no hold up for want of load which under the circumstances could be supplied by 'B' through the temporary Mv. and Lv. links and out from the existing distributing The underground joint can be

remade at leisure, for the substation that this cable supplies is able to be fed from another source.

13. Phase rotation indicator. You have in hand.

14. Building.

I have spoken to our Superintendent of Works and despatched the telex message praviously mentioned giving I hope enough information to allow the foundation drawings to be prepared. Your assumptions on levels being direct staff readings and not reduced levels are correct. The highest point being benchmark + 2.55. This point is 45 ft. from the main 'A' building line and could be extended to allow sufficient space for the foundations of the new building. The benchmark position +2.55 is six inches below the 'A' station floor level. SPW. favours keeping the same level, difficulties might arise with surface drainage owing to the steeply rising ground beyond elevation 'P D' on your drawing. Stone backfill is Stone backfill is plentiful. SPW. suggested that pillar and beam foundations with pillars under the load bearing stanchions with the beams supporting the dwarf block walls with possible intermediate pillars between those supporting the stanchions might be satisfactory. I have enclosed a survey of the site as you requested and drawn up by SPW. He thanks you for noting the error in the dimensional figure, the drawn length being correct relative to the width and the subsoils shown.

Passage way. This will be arranged locally together with the necessary tie ins, passage to building.

Building general arrangement as your amended plan. This is satisfactory with the exceptiion of one minor omission, I believe we agreed that there should be some adjustable louvre windows fitted in the translucent sheeting on the side walls elevations 'C C' and 'D D'.

15. Proramma.

has previously mentioned we are anxious to get ahead with laying the foundations, these will be started as soon as the foundation drawings arrive and we hope be ready in time to receive the building structure. If all goes well in this respect, then the arrival of all of the machinery at the end of December of this year should dovetail very nicely. Should we not be able to complete the building by that date, the delivery of the machinery should not be delayed, suitable storage here will be available. It is too early yet to think of dates for the arrival of the erecting engineers, I will keep you fully informed at each outgoing mail (one per month on average) of how work is progressing.

117

Income and other taxes.

These will not be imposed unless the estimated periods for the Erectors stay far exceeds those shown. In any event there is a double taxation relief agreement between the United Kingdom and the Colonial Government.

Turning now to W.H. Allens letter of the 18th December, 1970. addressed to you and which you sent a copy on here for information. There is little in fact in Allens letter that has not already been dealt with.

Their para. 10.

The existing engines operate on a detergent lubricating oil, grade CR30.HD. supplied by Wakefield.

- Para. 13. The Plant must be able to be operated by one operator.
- Para. 14. I believe this is standard proceedure and is acceptable.
- Para. 15. 415v. 3 phase. 4 wire. 50 cycles.
- Para. 18. As answered in your para. 11. 8 ins.

On the question of plant erection staff, the engine Erector will be necessary as will be the Commissioning Engineer. It is hoped from these two persons valuable operational information will be gained by the local staff who will be assisting them in their work. It is quite likely that a switchgear erecting Engineer will also be required, our staff here are small in number and the day to day work has to proceed. However of the latter Erector or Fitter, I will confirm later.

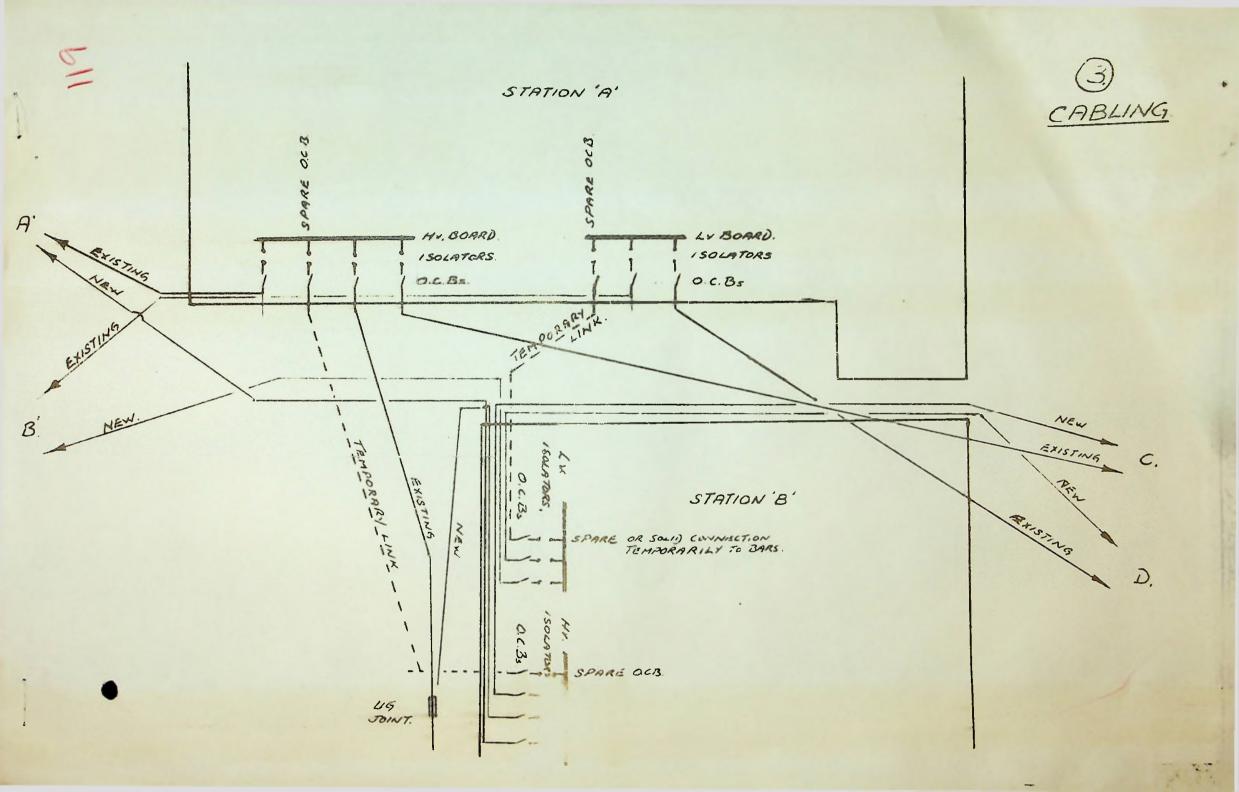
All is well in the existing Station with things turning over nicely. I cant see any real problems that cannot be got over in building and commissioning 'B', the worst snag is of course our poor communications, however they are high on the priority list for improvement.

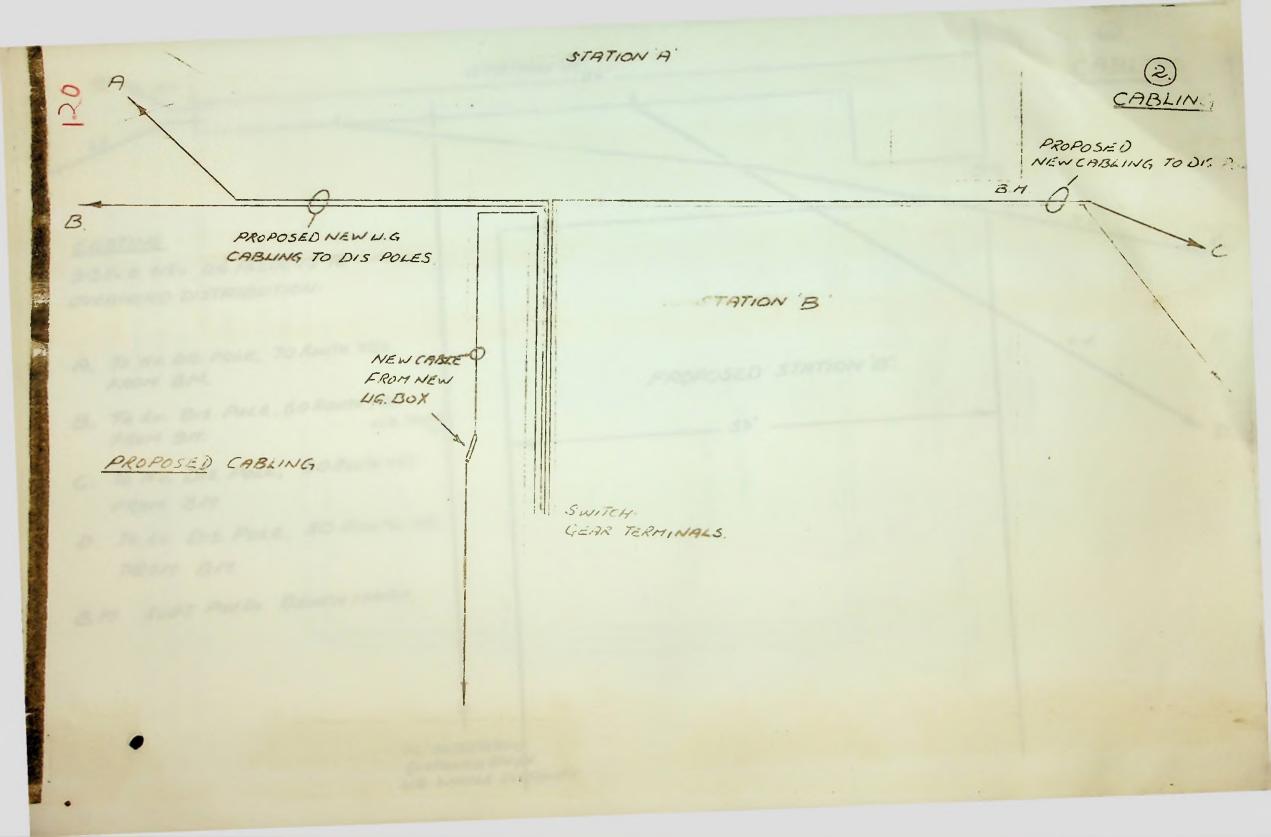
I trust all is well with you and all of your colleagues and that this aggravating postal strike soon ends.

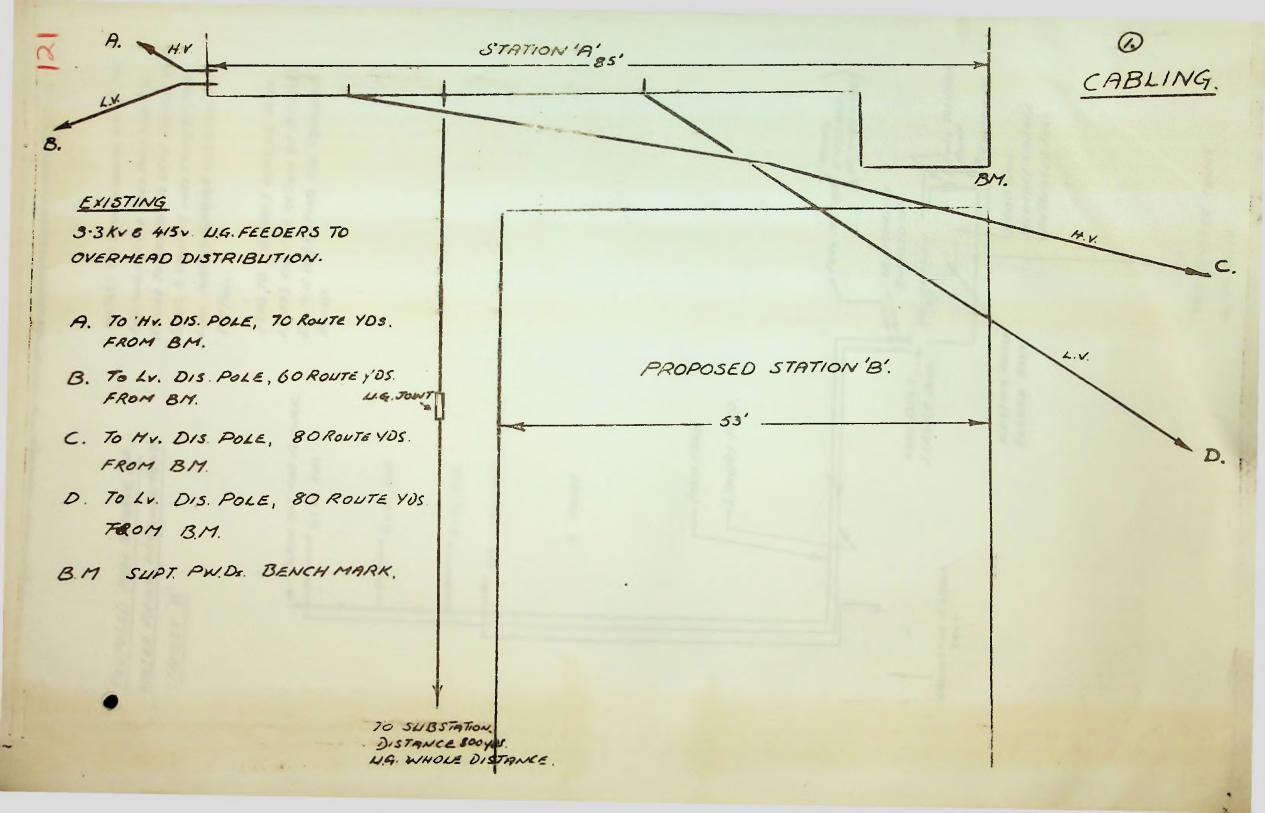
D.A. Buss Esq. F.I.E.E. Q Dept. Crown Agents, 4, Millbank, LONDON S.W.1. Sincerely,

E.C.G.

MANN ON STORAGE DISUSED PURRRY STIN 19 MALL BROCK JIN B' WITH PEAT GRASS ON PASAT. Blue CLAY Below 1 11 20 60.46 1 100 10 FALL FALL V 487. EMBANKHENT. THE THE CORD CAMPIENT 1. 7. STONE & GRAVEL TRACK EMPLE BRIDE ALL GRADIENTS FALL TO NORTH S'CALE 1/32 = 14







PROPOSED FUEL & MAKE UP
WATER PIPING ARRANGEMENT.

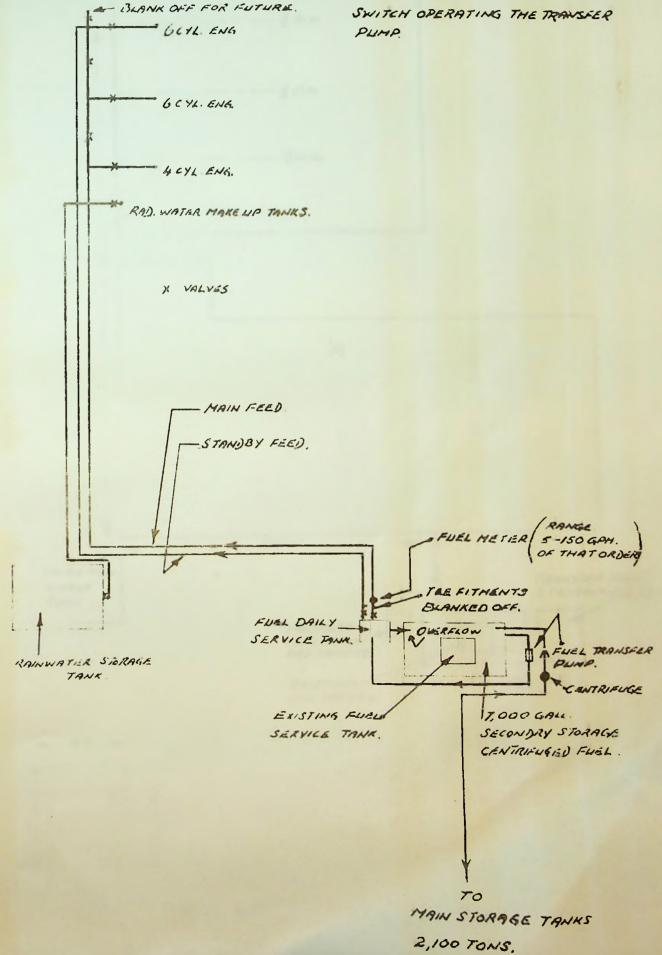
NOTES: ON COMMISSIONING OF B' THE
ENSTING SERVICE FUEL TRANK MICHT BE
RAISED TO PROPOSED DAMY SERVICE DANK
LEVEL 3 CONNECT INTO STAND BY FEED
LINE, THEREBY GIVENAM COMPLETE 240)
SYSTEM.

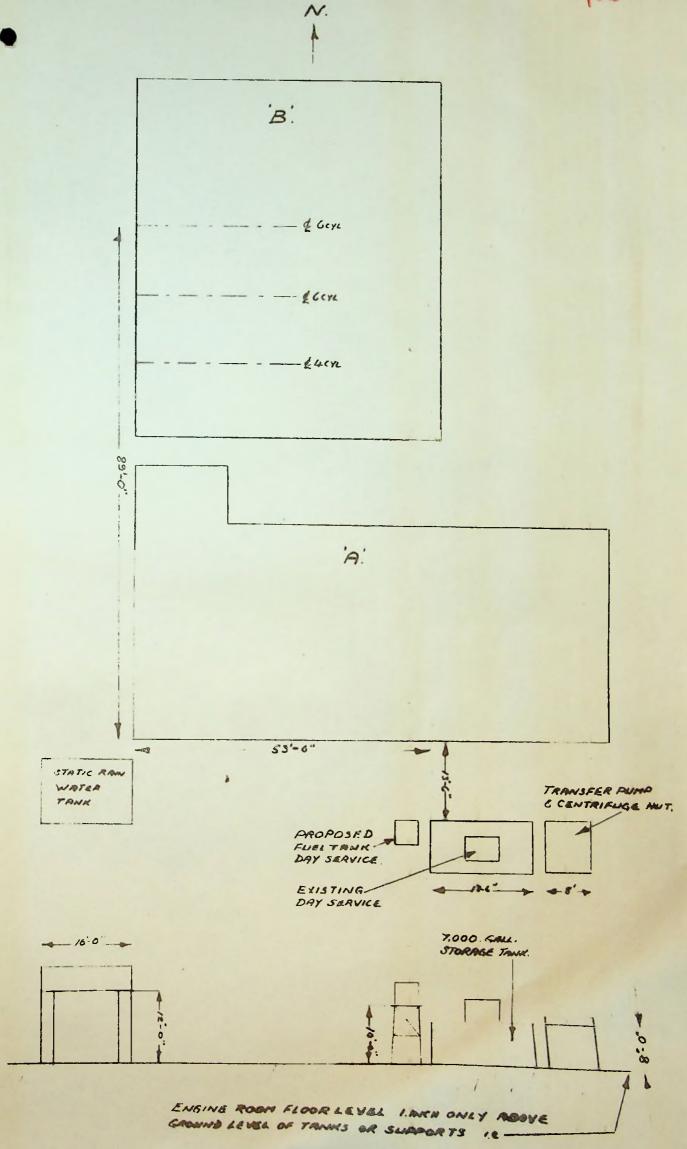
FUEL TO THE DAILY SERVICE TANK

IS FED ON THE ACTION OF A FLOAT

SWITCH OPERATING THE TRANSFER

PUMP





TELEGRAM.

From	CROWN LONDO	ON S.1	7.1
To	SECRETARY	PORT	STANLLY

Despatched:

9th February

19 71

Time:

Received:

11th February

19 71

Time:

1600

104

Q367/36 for Gutteridge Electrical Yourtel 1/2/71 will proceed on the basis of finished floor level same as existing station but advise you additional fill 250 cubic yards inside perimeter of building over our proposal for new follor 2 feet lower. Outside earthworks possibly also considerable but as full site levels not available unable assess quantity. Additional foundation concrete in excess of 100 cubic yards. In view of this please confirm your instructions about new floor level

CROWN LONDON S.W.1

P/L:

Copy to S.P.E.

Six Phase let me Lune braft.

C.S. I regul delay is replying, but had be await when of S.P.W., Please on druft below.

9367/36 For Bans SPW. Prefer same level but in View of adolitional foundation expected suggest flow level one foot lower Justinitys

\$ 11/2/11.

S/C Pl. have the tel. but by ESRO he twork for mund transmission to a specified CAA phone bunker for Plongh. I Copies of tel. to PE + SPD.

GOVERNMENT TELEGRAPH SERVICE

SENT

WAP 15148-821 585968/704663 500 pads 9/69 Grp.782

Number	Office of	f Origin	Words	Handed in at	Date
	ST	ANLEY			17.2.71
LTF CROWN LO		,	222 –7 730)		HO a/c

No 28

Q367/36 for Buss SPW Prefer same level but in view of additional foundation concrete suggest floor level one foot lower

GUTTERIDGE

100

TELEGRAM.

From.	CROWN	LONDON	S.V.	1		,
-------	-------	--------	------	---	--	---

To SECRET RY PORT STANLEY

Despatched:

17th February

19 71

Time: 1224

Received:

19th February

19 71

Time:

via Western

Q367/36 For Gutteridge Electrical Yourtel 10/2/71 Will endeavour to send building foundation drawings with Miss Gunn but still await information that you wish new floor level same as existing ourtel refers you site survey sent your letter 6th November only shows levels at corners of building 42ft long please obtain levels for building 62ft long or confirm error as last paragraph page 3 my letter 22nd December assume you have adequate stock of reinforcement and wire mesh fabric for foundations and slab if so send details if you wish to proceed with work strip off peat within perimeter of building

CROWN

PL: JE

Reply at 128

86

GOVERNMENT TELEGRAPH SERVICE

125

FALKLAND ISLANDS SENT

15148-221 585968/704663 500 pads 9 69 Grp.762

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			19.2.71
o LTF CROWN LONDON SW1 (Tel 01-222-7730)				HO a/c

No 30

Q367/36 for Buss yourtel 17/2/71 I confirm error in dimensional figure of drawing stop Levels shown are for 62ft building stop

Suitable reinforcing not available locally

COLONIAL SECRETARY

71 •

Crown Agents Ref: Q367/36.

25th February,

Further to my letter of the 4th February 1971 and in confirmation of telegrams subsequently received regarding building lines and foundations. I confirm that there was an error in the dimensional figure on the SPWs. drawing. He had shown the length of the new building as 26' + 16'. This should have read 46'+ 16'. His scaling was correct relative to the width and the levels shown.

SPWs. main concern for maintaining the floor level similar to that of the 'A' Station floor was because flooding had been experienced on previous occasions due to surface water coming down from the old quarry face behind the 'A' Station which was in fact flooded. On further consideration and as a result of your telegram concerning quantities of concrete he was of the opinion that a drop by one foot might be the best answer, if he goes two feet deep as you have suggested, he will need to build a retaining wall on your elevation 'DD' out from the radiators, with suitable drainage behind to take away surface water from the rising ground beyond. With regard to reinforcing for the concrete work, this should be ordered, there is some on hand but SPW. doubts it's suitability. Work has started on clearing the site, profile markers have been erected and the underground cables are now unearthed.

The Darwin will be leaving tomorrow for Montevideo with this letter also the letter of the 4th February
will be in the same mail bag. On Darwin's return, she
arrives back on the 9th March, I am hoping that Miss Gunn
will be bringing the foundation plans, SPW. can then
have a look at these and we will iron out any main and
immediate difficulties by telegram or phone if necessary.
I am afraid owing to the postal strike some of our
messages and letters will have crossed one another.

Trusting all is well with you.

D. Buss Esq. F.I.E.E., Q. Dept. Crown Agents 4, Millbank, London. S.W.1. Yours sincerely,

(Sgd. E.C. Gutteridge)

By 3.71. (KIV praction)

TELEGRAM.

From	CROWN LONDON S.W.1	
<i>To</i>	SECREMARY PORT STANLEY	

Despatched:

4th March 19 71 Time:

Received:

5th March 19 71

Time: 1455

via Western

367/36 for Gutteridge.

Ref our letter and drawings via Miss Gunn. Cost of reinforcement estimated £400 FOB. Confirm you have 70 T cement 150 sq yds. shuttering and all other necessary building materials available locally. If not vessel loads here end of April but advice required immediately for booking. Correct width for future set mass block 10 ft.

CROWN

PL: JE

Copy to S.P.E.

S.P.E.

To see & sulphono espay

fun b.c. pl.

C.S. Draft-refle at b.c. for affrond of despatel. boy's at b.c. a/draw this you

5. 3.71

X X X 131

26th January, 1971.

calklim slinds inley 3 over station

ith reference to the Governor P.I's telegree of the 15th January and your meeting with buss on the 21st January, accept the our revised troject stimate -

Two 467 km and one 306 km 3.3 KV diesol alternator sets, suitable sor parallel operation, complete with auxiliaries, 12 panel	٤
transformer	91,500
One Steel frame building approx: 53' x 62' x 19', with 3 Ion	
hand operated travelling crane	7,400
Additi nal i ems. spares. connecting	
cables, building lighting & power	8,000
accting and comissioning engineers	
for generating plant and swittingcar	7,500
Building eroctors, a octrical and	
jonerating & ta.	8,000
Fees, procurement and inspection	8,200
Carriage, insurance & freight	15,000
	147,600
Concingencies	2,400
	150,000
	3.3 AV diesel alternator sets, muitable for parallel operation, complete ith auxiliaries, 12 canel cubicity type satchboard and 200 KV transformer One itsel frame building approx: 53' x 62' x 19', with 3 on has operated triveling crane Additional ieas, spares, connecting cables, building lighting apower Arcting and comissioning engineers for operating plant and satisficar Building encourage, a actrical and pachanical struces, placement of generating sits. Teas, procurage that inspection January, insurance a freight

C.T. . Gordon, Sq.

/Item 5

CONTRACTOR STATES

Item 5 above includes for the erection of the building and the provision of entire foundations etc. by a callabour. e have insufficient information here to be it all certain of this e tim te and I would suggest this frem is clecked with the falklass Tslands poverment.

In accordance with para. 11 or the Colonial Secretary's letter of the 17th spril, 1970 I am copying this letter to him and to Mr. ... Jouthorn, Foreign & Commonwealth Office.

Ty "s, " O in frantsands in Definite W. Ty Or. 750 in esthering the inject that the content of t

and and manufacture in August

CC., no (85,5); rem tol. 15.5 y

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Chief. Incide the fortest of the for

f c.s.

10.4.

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1 - 1 4

The details of costs shown at 131 will supercede those I have already submitted to the C.T. as the budgetary estimate of costs, these being copied from those previously posted here by Buss of the CAs. I copied them to the C.T. in order that he had the information on hand for any queries during the coming Council Budget meetings. The notable differences are:-

Increases; By 23,400 in the F.O.B. building cost.

By £2.500 in insurance and freight.

By £1,750 in estimated local building costs. These are not yet known, the v S.P.W. has the matter in hand.

Reduction:

By £3,085, ie. from £10,585 to £7,500 in services of erecting and commissioning engineers. This reduction I assume to be for the services of an electrical engineer who would install all of the switch, control and automatic equipment, alternators, exciters and auxialory equipment.

I have received, by Miss Gunn, more details from Buss including the foundation plans.

SPED. 11 th March, 71.

Whed. the position is that we have Cometa 3 yours (Capital) Denshymet How et the Make of £50,000 per aumin.

Le heavente we aeven? a comme at on from FCO (DDA)

hi connection with Y, p. 97.

The he at the hears to be pited.)

C.S.,

I have enclosed letters in reply to those recently received from the CAs. with regard to the Power Station project. Mr Suggate's Letter to Mr Gordon of ODM and copied to you gives the latest estimates. You will have noted that there is little margin now for contingencies (\$2,400). I believe this has only been achieved by omitting the engagement of an Electrical Erector. In my letter I have asked if this is so. If it is so, what will be Covernment's reaction. You may wish to comment.

PRX 17-3-71.

love he phis to Barro V Deaem (to both of which I have heave herior annothers of at the food of p. 1 of the forms of which you will head to missent Mr Koyaus like heave advers) hoted. I have hot lean the betters to which they are liphos. I do not think any wee ful purpose work to found of four hunts. Let us loo bhat austing the guery at the send of your hunts.

3 Your letter to Englate Charle go in deplicate . The Forgy. 1/18/3

C.S.

You mit at 137. para 1. belle amended .

Para. 2. solil.

Para. 3. Then is no septy to the Sopphi letter. His was a copy, the original having been when I to the forder of 000.

I have enclosed at b.c. all of the correspondence received last mail to-gother with plan etc. after you have forward may I have it returned please.

Spetting 18/3.

FALKLAND ISLANDS

WA 148-821 585968/704663 500 pads 9/69 Grp.782

SENT

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			23.3.71
IMF CROWN	LONDON SW1			110 a/c

Fo 51

Yourtel 12th March 0567/36 for Burn grow Sutteridge letter in mail despetched 26th Pebrury assume you have now received

JE

Time: 1615

1410

130

TELEGRAM.

From CROWN LONDON S.W.1

To SECRETARY PORT STANLEY

Despatched: 22nd March 1971 Time: 1225

19 71

23rd March

For Gutteridge 1/367/36 ref previous telegram

No reply received we are ordering cut and bent reinforcing bars at approximate cost £700 and (coresil) and polystyrene insulation for generating sets foundations at approximate cost £700 advise urgently if 70 tons cement and 200 square yards shuttering available locally or wish us to order all foundation drawings will be sent on 22nd March

CROWN

PL: JE

Copy to S.P.E.

Received:

As. Ref. Ref: Q. 367/36.

16th March,

71 •

Stanley'B' Power Station.

Thank you for your note dated 3rd March, 1971 together with; Foundation Plans.

Cable Schedule.

Manufacture and Delivery Programme. Minutes of your meeting at Bedford.

All safely delivered by Miss A. Gunn, I am answering Mr Weaver's letter seperately.

On first sight we can see no real problems concerning the foundations. It was a pity I had not been aware of the lack of suitable reinforcing material here and able to have informed you earlier. The S.P.W. (Tom Royans) who is now compiling local costs of building, has decided after taking quantities off that the floor level must be reduced by the two feet you had originally suggested, owing to cost. On looking over his shoulder I noted that his running total of costs so far amounted to 27,004. I hope he was near to completion. I shall be enclosing a copy of the final cost with this letter.

The site has been cleared, levelled and sufficient concrete blocks made to build the dwarf walls. (The S.P.W. goes on leave from the Colony to Britain in April returning about mid July. His U.K. address will be; 6, Church Street, Rugeley, Staffordshire.).

The reinforcing together I expect with the building structure will be arriving on the June charter vessel. Before leaving S.P.W. will have placed the contract for building construction, but I do not anticipate work starting on the building until S.P.W. returns. Work will however go ahead in making up shuttering and possibly in prefabricating the reinforcing ready for insertion in to the moulds and shuttering, there is also a quantity of stone to be crushed for the aggregate.

I note from the delivery programme that the 4BCS42D engine with it's associated equipment is scheduled to arrive by the September sailing together with the all important jacking equipment and trolley. I rather doubt if the building structure will have reached the stage of being able to accommodate the first delivery of machinery by September; it would not be wise to attempt to alter delivery times now firmly established, therefore I believe it would be advisable to send along with the first shipment two or three tarpaulins, I have two on hand but they are pretty ripe.

In Mr Suggate's letter addressed to Mr Gordon of ODM. concerning final estimates, there was a considerable difference in the fob. cost of the building to that previously shown/

.

shown in the Budgetary Estimate you forwarded with your letter of the 22nd December 1970. It was not possible to relate all of Mr Suggate's groupings of expenditure with the 22 plus the supplementary items previously given, this does not matter in particular. I noted there appeared to be an arithmetical error in the original estimate in the grouped item for Erecting Engineers, the total shown at £9,585, should I believe read £40,585. For information, board and lodging of the best available standard, costs £21 per week and not £50 as you had previously allowed, this could show a saving of £4,200 if three Arectors are to be employed. Mr Suggate's estimate of £7,500 for Erecting Engineers which is £3,085 lower than the previous estimate indicates that he may have omitted the Electrical Erector, perhaps you will confirm.

By now you will have received my letter of the 4th February 1971, possibly together with the air letter I sent via Chile, one letter more or less duplicates the other. In these my proposals for fuel and water supplies are the only matters I believe that may give cause for comment.

I think that is all by this outgoing mail. We were all very pleased when the postal strike ended and now have our radio communications back to normal.

Kindest regards.

D.A. Buss Hsq., F.I.E.E., Q. Dept., Crown Agents, 4, Millbank, London. G.W.1. Sincerely,

c.c. Colonial Secretary, File No. 1714/0.

17th March

71 .

Stanley 'B' Power Station.

March 1971 together with the foundation drawings. The S.P.W. has had second thoughts on levels. He has decided after taking off quantities from your drawings that the cost involved will not allow the floor levels to be the same, in consequence he has decided to do what you originally suggested, drop the 'B' Station level by the full two feet. He will, he believes need to build an earth retaining wall along elevation 'D.D' with suitable drainage for surface water. At the north end of this elevation the ground beyond rises by approximately 1: 4, decreasing at the south end to approximately 1: 20. It is likely at the north end that the water cooling radiator may need to be raised on a plinth in order to ensure adequate air circulation.

The S.P.W. is now busy estimating site and building costs, I will enclose a copy with this letter and send one to Donald Buss. I now doubt whether we will start actual building construction until S.P.W. returns from Britain in mid July. In the meantime the site has been cleared and the blocks for the concrete dwarf walls have been made, the building contract is to be placed and we will go ahead crushing mock for the metal aggregate, make up shuttering moulds and generally prepare for a firm start about mid July.

I think that is all at this particular stage, possibly by the time S.P.W. returns we will have received the balance of the building, engine foundation and ducting drawings.

Kindest regards.

R.L. Weaver Esq., Q. Dept., Crown Agents, 4, Millbank, LONDON. S.W.1. Sincerely.

c.c. Colonial Secretary, File No. 1714/0.

CAs. Ref: Q. 367/36.

Stanley B Power Station.

Estimated Site Costs.	S	
Excavation-return fill and ram 65 cu.yds.	250	
Blinding and Mass Concrete under 4-4, bases 5; ou. yds.	35 7	
Concrete. Stanchion pads Stanchion piers Hachine bases Retaining walls Ground beams. 124 cm. yds.	4 , 00lj	Fair faced.
Wloor Blad		Smooth finnish.
Apron, remos and stons. 480 so, yes.	4,532	Brash finnish.
Steelfixing. 48cwt.	90	
Formork. Basic 400 sq. yds. plus strike and fix.	1,50	
Blockwork. 200 sq. yds.	CO_{i}	
Erection of superstructure.	1,500	
Covered passage-way.	350	
Floor seal and paintwork-Floors, steelwork joinery.	250	
		36,583

Allow for;

Moinforcement 1 to 3 bases.

Reinforcement shipment for all plus freight, Inclement centher.

<u>81.400</u> 27,985

Ony £8,000

The contract will be executed on a cost plus basis, there will be variations for and against according to site conditions unforseen. The supt. Public Norks considers the above costings to be a reasonable guide.

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS SENT

WAP 15148-821 585960/704663 500 pade 9/69 Grp.782

Number	Office of Origin	Words	Handed in at	Date
	STABLET			27.3.71
CRAT PSIGN	THE GROWN IS TOOK SWI			no a/e

No. 56

0367/36 for Buse from Gutteridge begins yourt to 4th and 22rd North all building equipment and natorials other than cultable reinforcement available here regret delay in reply ends

SINCRIM RY

Time

CAs. Ref: Q. 367/36.

25th March, 71.

Stanley 'B' Power Station.

We have an unexpected mail leaving in two days time by RRS. John Biscoe, this gives me an opportunity to tie up one or two odd points. Firstly some corrections to my previous letters to yourself and Mr Weaver, these were dated 16th and 17th March respectively. Please amend in your letter the U.K. address of the S.P.W. (T.W. Royans) to read; 88, Belt Road, Hednesford, Staffordshire. He will be arriving in the U.K. on or about 17th April. I would be pleased if you would ask Mr Weaver to amend 1st paras. lines 11 and 13: north end should read south end and vice versa.

I apologise for the delay in the despatch of an answer to your telegram of the 4th March concerning information you required on available building materials. This was answered immediately but unfortunately due to an office oversight the telegram was not despatched. I confirm that we have all other builing materials. I hope by now you will have received all of the correspondence sent this includes 3.P.Ws. schedule of building costs.

I have combed through all previous correspondence to pick up any points I may have over-looked, I discovered that Allan's had asked as shown in the minutes of the meeting held in Bedford on the 26th January. para. 22., for feeder ratings, order of equipment and inscriptions, these I have tabulated and shown on the attached sheet. The ratings I have shown are in excess of the maximums by between 25% and 50%.

If it is possible to amend the rating of the station transformer to 250 Kva v. 200 Kva. I think it would be advisable to do it. We did discuss this at one time but I am not certain whether it was agreed that it should be done.

I believe that to be all at this time. I trust all is well with you. Kindest regards.

D.A.Buss Esq., F.T.E.E., Q. Dept., Crown Agents, 4, Millbank, London. S.W.1.

Sincerely,

c.c. Colonial Secretary, File NO.1714/0.

ECG.

Feeder Ratings etc. Stanley 'B' Power Station.

Hv. Panels.

Rating	Inscription.
50 amps.	Stanley West.
50 amps.	Station Transformer.
75 amps.	320 Kw Alternator.
100 amps.	488 Kw Alternator.
der. ???.	
100 amps.	488 Kw Alternator.
50 amps.	Pictons Substation.
75 amps.	Stanley East.
100 amps.	Spare.
	50 amps. 50 amps. 75 amps. 100 amps. der. ???. 100 amps. 50 amps. 75 amps.

Neutral Earthing cubicle.

Lv. Panels.

Incoming.	400 amps.	Station Transformer.
Feeder No1.	200 amps.	Spare.
Feeder No. 2.	200 amps.	K.E.M.H.
feeder No. 3.	200 amps.	Stanley West.
Feeder No. 4.	200 amos.	Station Services.

TELEGRAM.

FromGRO	WN LONDON S.W.1		
ToGUT	TERIDGE ELECTRIC	ITY DEPAR	PATENT.
Despatched:	2nd April	<i>19</i> 71	Time: 1720

Received: 3rd April .

19 71 Time:

Thanks yourlets 2nd, 4th, 25th February and 17th March cable HV and LV Feeder names and capacities

CROWN

PL: JE

Reply at 156

156

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			5.4.71
То				
LATY CROWN LANDON SEL			HO a/c	

No 64 155

Yourtel 2nd April 0367/36 following for Buss HV panels
Feeder One 50 amps Stanley West Feeder two 50 amps
Station transformer Alternator One alternator two Bus
Section query Space feeder query Alternator three Feeder
three 50 amps Pictons Substation Feeder four 75 amps Stanley
East Feeder five 100 amps Space stop HV outgoing feeder
ratings shown are 25/30% above present maximums stop
LV Pan 1 Incoming 400 amps from Station transformer
Feeder one space Feeder two 200 amps KMM Feeder three
200 amps Stanley Test Feeder four Station Services stop
Station transformer 250 KVA stop Letter dated 25th March
has been despatched confirming above

GUTTE IDGE

Copy to S.P.E.

JE

See 174

TELEGRAM.

From	BUSS CROWN		
To	SECRETARY	PORT	STAPLEY

Despatched:

19th April

19 71

Time: 1217

Received:

19th April

19 71

Time:

For Gutteridge Electricity Dept.

Please advise on following:-

- (1) Royans unknown at Rugeley address
- (2) Height and type coupling of trailer towing vehicle
- (3) Will you fit clock/comparator to Bus section if not send drilling details

BUSS CROWN

PL: JE

Copy to S.P.E.

Mai S.P.E. providing septy.

E pposté page pl. [22.4.71

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

W 5148-821 585998/704665 500 pade 9/69 Gep.782

Number	Office of Origin	Words	Handed In at	Date
	BT PIBY	1 8 1		22.4.71
ETA PIC	TST CHOUSE LONDON TRAI			30 a/e

No. 74

Following for luss (FT/36 from Gutteridge stop Yourtel 20to April one daysna FM/UT 2nd May 100 Belt Word Hednesford Stufferdahire two pinple pin I inch dismoter free lengths 2 inch road height 40 inch three clocks place drill countly spaced hele dismoters 5 inch 7 inch 5 inch respectively panel may need to be detachable as access in necessary to clocks mechanism

Copy to S.P.E.

KIV - 161

COLONIAL SECRETARY

163

(P.E.

further discursion. I take 17 their there are factor's which mule an ontwide contract heccusary which you will probably to all to explain to me.

SEE 170. IN CONTRACT FICE.

TELEGRAM.

From.	CROWN	LONDO1	I S.₩.1	
To	ELECTI		DEPARTMENT	

Despatched:

29th April

*197*1

Time: 1717

Received:

29th April

1971

Time:

162

Yourcable 22 Please advise exact internal dimensions of drawbar clevis

CROWN

Reply 165'

PL: JE

GOVERNMENT TELEGRAPH SERVICE

165

FALKLAND ISLANDS

WAP 15148-321 535968/704663 \$00 pads 9/69 G-p.782

SENT

Number	Office of Origin	Words	Handed In at	Date
		29.4.71		
INP GROWN LO	ONDOK SM		uc a/c	

No 82

Department 0367/36 yourtel 2 th Towing Jaw internal dimensions 2 by 2 inches Towing Pin 1; inches dimeter COLONIAL SOCRETARY

Copy to S.P.E.

JI

FALKLAND ISLANDS

166

SENT

P2538 P4776/32/401381 500 H/66 R. Ward 843

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			3.5.71
LTF CROWN	LONDON SHI			NO a/c

No 84 /67

Yourtel 29th April 0367/36 in view of extra cost agree possible duplicate at later date

COLONIAL SECRETARY

JE

From	CROWN LONDON S.W.1	**********************	Have wee
To	SECR TARY PORT STAILEY		
Despatched:	29th April	<i>19</i> 71	Time: 1630
Received:	3rd May	<i>19</i> 71	$Time \cdot 1030$

For Gutteridge Electricity.

Your letter 25th concellation charge £80 plus £170 for 250KVA transformer price of 250KVA is £650 please coble instructions suggest a duplicate 200KVA at later date

CROWN

ANSWER AT 166

Copy to S.F.E.

PL: JE

CAs. Ref: 0367/36

4th May

71.

Stanley '8' Power Station.

There is little to write about on this outgoing mail. Tom Royans the Superintendent of Public Norks should be in England by the time you receive this letter. I have asked him to call upon you or Mr Weaver when he visits the Crown Agents. He may be difficult to contact at the address I have given as I believe he intends to be travelling a good deal when on leave.

With regard to my suggestion of uprating the Station transformer to 250 Kva, which was subsequently referred to in your telegram of 29th April. I agree that it would be better, at some later date, to bank up with it by a second transformer, this would have the advantage of duplication in the event of a failure which of course would lead to a complete shutdown.

There is no movement on the building side we are coming up to mid winter and weather conditions are nt all that good, however on SPWs. return things should start moving there.

I have attached a revised costing schedule, As you will note there is still a little in hand, but it is a little, it will be boosted if the Electrical Fitter is dropped, provided Brush supply full erection details and diagrams I feel reasonably confident that I shall be able to cope with the installation.

All is well with the present Station and I hope things will continue that way. Wext winter we will, in all probability, be operating 'B'

Kindest regards.

D.A. Buss Esq. F.I.E.S., Q. Dept. Crown Agents, 4, Millbank, LONDON. S.W.1. Sincerely,

cc File 1714/0.

ECG.

1 .	Three Diesel Alternator sets, Auxiliaries and Trolley.	£70,579	
2.	12 Panel HT Board and	£12,450	
3.	Two Panel five way MV Board and Transformer	£1,650	
	8% Fixed price quote.	£6774	
			£91,453
56.789011234567890112341111111111111111111111111111111111	Merz Price protection Coventry Radiators. Standard engine spares. Special Engine spares. Stellite valves & rotators. Turbo cleaning equipment. Jacking Brackets. Summation metering. Astatic control switches. Reverse KVar. Voltmeters, Alternator pane Extra for neutral earthing. Extra for fittings. Station Distribution board. Earth, sopper plate, tape. Interconnecting cabling. Station lighting fittings, extra for fittings. Two Norton jacks. Four Dorvic skates	£90 £116 £83 £74 £405 £15. £58 £96 £74 £100 £250 £750	
	8% Fixed price quote.	£558	
- 2	100		£7,533
23.	Single storey portal frame building with crane.	* 1	£7,400
24.	Erecting & Commissioning Engineers.		£9,334
25.	Erection of building & Civil Works.	.83,000	
26.	Mechanical & Electrical		
27. 28.	Installation, cables, etc. Placement of generators. Carriage, insurance, freight		
29.	Fees, procurement,	£15,000	
	inspection. Contingencies.	£8,200 £1,330	GACKATE
			£34,280

£34,280 £150,000

Item 7. may not be considered part of the capital project. Item 24. would show a saving of £3,418 if the Electrical Engineer is omitted. Together showing a total saving of £5,832 to add to Contingencies.

From	BUSS CROWN			
To	SECRETARY PORT	STANLEY		
Despatched :		6th May	<i>19</i> 71	Time: 1715
Received :		6th May	<i>19</i> 71	Time: 1445

2367/36 Following for Gutteridge.

Please confirm medium voltage your letter No 174 28th January 1970 states 400/230 but letter 4th February 1971 page 5 states 415V

117

BUSS CROWN

PL: JE

Copy to S.P.E.

S.P. E. would you pl. advise,

173

FALKLAND ISLANDS

SENT

8 P4776/32/401381 500 11/66 R. Ward 843

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			10.5.71
o LTF CROWN L	(NDON SWI			но А/с

No 89

Yourtel 6th May 3567/36 confirm medium voltage at 415/240V assume transformer will have 2 55 plus minus extern 1 off load tappings

SECKLITHRY

Copy to S.P.E.

Su 24 5.71. (KINDOL)

From	BUSS CR	OWN		
<i>To</i>	SECRED'.	RY PORT STAILEY		
Despatched:		10th May	1971	Time: 1230
Received:		11th May	1971	Time:

Following for Gutteridge.

7

0367/36 H.V. panel arrangements your letter 9th Harch and telegram 5th April Buss working on following feeders one and two transformer alternators one and two bus section alternators three feeder three spare panel. This also different your sketch letter 4th February can you see any objection. Please identify cables on sketch by name

HS

BUSS CROWN

PL: JE

Copy to S.P.E.

Lee 177

FromBUSS	CROWN			
ToSECRE	TARY PORT STANLEY	······································		
Despatched :	11th May	<i>19</i> 71	Time : 0741	
Received:	12th Nay	<i>19</i> 71	Time: 1130	
@367/36 Gutteridge 1 in corrected figure his services if moot work nevertheless co	£10,585. Urgent de saving worthwhitensiderable electric BUS	lecision n le invite les to be	ecessary regard overpend on ci done can you ad	ling L v il
PL: JE	Copies	15 ha "	Adram from	b.c.
Copy to S.P.E.	SC. Papely to 174 a please no my me al-176	1		

This must be a policy cleasion, a raing of som 23,500 would be effected, neverthelens as Bun points on to the electrical works on considerable, they imola the complete electrical installation and connection of all contral gear, switingen; automotio chices it. it. Flowert to obison before answering. De repair, about uff al come for appeared please.





FALKLAND ISLANDS

P1677 P4416 8/64

Words Office of Origin Handed in at Number Date

Psy

15. 5. 71

To

CROWN LONDON SWI

Hoa/c

1714

No. 92 Following for Buss Q367/36 Yourtel 10th May My sketch 4th February was to show feeder cable runs panel was illustrative only Mytel 5th April followed Allens specification their letter 9th October 1970 I have no objection to any change stop Cable sketch number 3 cable C HV Stanley West Cable A HV Stanley East HV underground jointed cable Pictons Substation Cable B MV KEMH Cable D MV Stanley West stop Yourtel 11th May will inform you earliest of firm decision

Gutteridge

Copy to SPED

Time

FA

FALKLAND ISLANDS

SENT

P4776/32/401381 500 11/66 R. Ward 843

Number		Office of	Origin		Words	Handed in at	Date
		Stanle	V				19.5.71
То	lof	CROWN	LONDON	SW1			TIO A/C

No. 93 Following for Buss 0367/36 Yourtel 11th May

Blectrical Brector required

SECRETARY

H

maic?

FromBUSS	CROWN LONDON			
ToSECRE	TARY PORT STAUL	ŒΥ		
Despatched:	19th May	1971	Time:	1621
Received:		19	Time .	

367/36 for Gutteriage.

Delivery trolley as quoted has steel wheels for concrete as minutes meeting 26th September. Sketch your letter 4th February shows tarmac are pneumatic tyres necessary extra cost about £250

BUSS CROWN

PL: JE S.P.E. S.P.E. To Maran copy from b.c. + advise pl.

1/11/ also 179.

| C.S. | 25:5:71.

C.S.,

It would certainly be safer to have the pneumatic tyres. I think it would be wise to ask for them. Also the trailer with pneumatic tyres will be a very useful piece of plant for transporting re-currently other pieces of machinery. If you agree the draft telegram below might be sent.

Yourtel 19th May Q367/36 for Buss please arrange fitting pneumatic tyres. Secretary.

Suthing

· CROWN AGENTS

179

4.	MIL	LBA	NK.	LON	DON.	S.W.1.
-,			,		,	

Te/e: 01-222 7730

Telex: 916205

AMENDMENT OF CONTRACT

No.4

COPY FOR PRINCIPAL



C.A.'s Reference

C.30/G FALK POWER 0/52237/2

Authority

C.367/36/2/445



SUPPLIER'S REF.

DATE 20 April 1971

Dear Sirs,

We refer to the above order and to your letter reference SJL/DG dated 15 April 1971 for the supply f o b London of reinforcing bars as per drawings Nos 331/4A, 5 and 6.

- 2 The revised figure for bars, taking into acc unt your estimating error and the steel prices increase of the 11 April 1971 should now read £448.23. The fabric price is now increased to £0.22 per sq.yd. amending this item to £69.81.
- 3 The contract price is accordingly decreased to 2518.04 f o b London.

Yours faithfully

R H Davies for the Crown Agents

S.P. E. D.,

For inf. pd. 6

Lat. (dinn - /m 24.5.71

SU is 20

Special notes to Principal:-

'Q' Department

27th May

71.

Stanley 'B' Power Station

There was nothing in the last incoming mail other than advice that the reinforcement bars and the building have been shipped on the charter vessel and should arrive here in about two weeks time.

My sketch of the existing and proposed cabling arrangements referred to in your telegram of the 10th of May was to illustrate the cable runs, I regret I had not shown the cables connected as was proposed in my subsequent letter and telegram of the 25th March and 5th of April respectively. The panel arrangement for the distribution cabling and machine cabling may best be decided by yourself or the Supplier's.

I had previously written saying that I did not believe it would be practical to re-route the cables 'C' and 'D' which currently are routed under the building site. I have now unearthed these right back to overhead line poles and will relay them along the narrow gap seperating the new from the old Station. It is likely that the replacement cable and fittings are now on order, if they are not, then please refer to my letter of 4th November 1970. page 3. items 2-5 the dividing boxes could be reduced to one only each and the cables each by 100 yards. I will re-connect both of these to the new panels in due course.

With regard to your telegram of the 11th May concerning the engagement of an Electrical Erector. I discussed with the Colonial Secretary, we agreed that in view of the work and cost involved it would be adviseable to retain his services, appt from the insurance of knowing that the installation will be done exactly to the Maker's specifications there is the added advantage of local staff gaining valuable knowledge from him on the maintenance and operation of the equipment.

Your telegram of the 19th May concerning the trolley's wheels, I confirm that owing to the nature of the ground over which it will be required to travel, pneumatic wheels should be fitted. An added advantage will be that the trolley can lafterwards be used.

There is no other news on the project to report. I hope that you or Mr Weaver will meet Tom Royans the S.P.W. before he returns.

Kindest regards.

D.A. Buss Esq., F.I.E.E., Q Dept., Crown Agents, 4, Millbank, LONDON. S.W.1.

Yours sincerely

From	BUSS CROTT		
To	SECRETARY PORT STANI	EY	
- Despatched :	26th Nay	<i>19</i> 71	<i>Time</i> : 1645
Received :	27th Hay	<i>19</i> 71	Time:

Ouref 0367/36 For Gutteridge

Required urgently approx dates for arrival of mechanical and electrical erectors. Suggest mechanical in time to meet December sailing and electrical later. Commissioning engineer not required

BUSS CROWN

PL: JE

Copy to S.P.E.

Reply at 191

FALKLAND ISLANDS

SENT

76/32/401381 500 11/66 R. Ward 843

Number Office of Origin Words Handed in at Date 31.5.71 STANLEY To HO A/C LTF CROWN LONDON SW1

180

Yourtel 19th May 0367/36 For Buss please arrange fitting pneumatic tyres stop Yourtel 26th May regret owing to shipping uncertainty and building programme not being known until return SPW I am unable to give arrival dates for erector suggest you enquire sailing dates from Darwin Shipping/Falkland Island Trading Company Pall Wall they are not known at local office here

SECRETARY

The IPE has been polleg.

Time

From	CROWN LONDON S.W.1		
<i>To</i>	SECRETARY PORT STANLEY		
Despatched :	29th June	<u>19</u> 71	Time: 1338
Received :	29th June	<i>19</i> 71	Time: 1057

Ouref Q/367/36 for Gutteridge.

Reference Picton 3.3KV feeder am arranging duct entrance on east side to back of switchboard please confirm existing cable can be lifted and diverted to new panel thus avoiding underground joint shown sketch No. 3 yourlet 4th February

CROWN

PL: JE

Copy to S.P.E.

5 P.T.,
To see & native pl.

FALKLAND ISLANDS

SENT

P2	4776/32/401381	500	11/66	R	Ward	843

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			2.7.78
LTP CROWN LONDON SW1				no A/c

No 121

Yourtel 25th June 3/367/36 from Gutteridge for Buse stop I confirm your proposed cabling arrangement possible SHORESTAN

J.

Time

$From \dots$	BUSS CROWN		
To	SECRETARY PORT STANLEY		 .
Despatched :	9th July	<i>19</i> 71	Time: 1343
Received :	9th July	<i>19</i> 71	Time:

Ourlet 9th June re tools reply not required urgently except item 8 on which cable instructions

Buss

PL: JE

Copy to S.P.E.

Phone ser 199.

Report 20

From	BUSS CROW	Ţ				
To	SECRETARY	PORT S	TANLEY			
Despatched:		9 t h	July	<i>19</i> 71	Time :	1717
Received:		9th	July	<i>19</i> 71	Time:	

For Gutteridge.

Yourlet 4th November 1970 do you now have set of Burndy Compression tools

BUSS

PL: JE

Copy to S.P.E.

S.C.,

Please see draft reply overleaf.

SPE. 10th July 71.

Reply of 200

FALKLAND ISLANDS

SENT

P4776/32/401381 500 11/66 R Ward 843

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			12.7.71
o LTF CROWN LO	ondon swi			по А/с

<u>No 125</u>

Yourtels 9th July reference \$367/36 from Gutteridge for Buss
Yourlet 9th June not received I have range 0.1 to 0.0225
Burndy compression tooling but will require lugs connectors
stop Royans advised that you despatched revised building drawings
these have not been received

COLONIAL SECRETARY

Time

Bu 29. 7.71

TELEGRAM SENT.

From GOVERNOR to SECRETARY OF STATE

Despatched: 31.7.71 Time: 1200 Received:

Time:

No. 274

From Jones for Kinnear of A.I.O. Dept. of F.C.O. Grateful you despatch power station building plans by most expeditious method or hand of next official visitor. Crown Agents Ref. 0367/36.

LEJIS

Reply at 205

PL: HT

FALKLAND ISLANDS

SENT

WAN 3142-821 584578/790938 500 pds 12/68 Grp.782

Number	Office of Origin	Words	Handed in at	Date
4700	STALLEY		2.	6.71
ETA" PRIM	APTY CRO B LONDON SW1		Ħ	n A/e

110 159

FOLLOWING FOR BUSS 0367/36 ROYAUS UNFORTUNATELY REGLECTED TO BRING R VISED BUILDING PLANS PLEADE DEPUTCH ON TOPY EACH TO MAKE OF ATLANTIC AND LEDIAL OCCAL DEPT FOO FOR INNODIATE ONDARD TRANSALSSION

SECRETARY

JR



FALKLAND ISLANDS

SENT

P1677 P4416 8/64

Number	Office of Origin	Words	Handed in at	Date
	PSY		1400	3.8.71
То				
	LTF CROWN LONDON SWI	1	H	0 A/c

NO 163

YOURLETS Q367/36 9TH 21ST JUNE 1ST JULY JUST RECEIVED ON SPWS RETURN STOP INSTALLATION ACCESSORIES REQUIRED ARE AS PARAGRAPH 1 SUBPARAGRAPHS 2 5 13 16 AND 18 OF YOURLET 9TH JUNE STOP HV PHASING RODS SUGGEST ACCEPTANCE OF EDGCUMBE PEEBLES OFFER STOP YOURLET 21ST JULY PARAGRAPH 1 NOTED PARAGRAPHS 2 AND 3 CONFIRM CORRECT STOP YOURLET 21ST JUNE NOTED AM REPLYING NEXT NORTHBOUND MAIL ETA LONDON APPROXIMATELY 13TH SEPTEMBER STOP ANTICIPATE AIR PASSAGES WILL BE AVAILABLE FOR ERECTORS WHEN LOCAL DISCUSSIONS FIRMED UP ON COMMUNICATIONS

SECRETARY

RB

lespied: SPE.

TELEGRAM SENT.

From SECRETARY OF STATE to GOVERNOR

Despatched:

3.8.71

Time:

2104 Received:

4.8.71 Time: **9**915

ETAT PRIORITY.

NO 196.

UNCLASSIFIED 031515Z

202

Your telegram 274 of 31st July.

Power Station plans hope to send these by Colonel Wheatley.

Douglas-Home

PL: JR

Copy to S.P.E.

Sec 204

TELEGRAM.

From BUSS CROWN

To SECRETARY PORT STANLEY

Despatched. 4th August 19 71 Time: 1104

Received: 4th August 19 71 Time: 0915

For Gutteridge Q367/36.

Our telegram 9th July sleepers for use as jacking platforms do you require these reply urgently required.

Buss Crown

PL: JR

Copy to S.P.E.

Ref. 1714 CAs. Ref 0367/36

POWER & ELECTRICAL DEPARTMENT, STANLEY,

FALKLAND ISLANDS.

7th August 19 71

Dear Mr Buss,

Stanley 'B' Power Station

- these are dated 9th June, 21st June and 1st July 1971.

 Mr Royans also returned on the same mail steamer but unfortunately he had not brought the revised foundation drawings as he had assumed copies would have been sent on here. I am hoping that these will now arrive next week by Colonel Wheatly.
- 2. Referring now to your letter of the 9th June regarding installation accessories, I have already telegraphed the items that will be required and confirm that these are as shown in para. 1. subparas 3. 5. 13. 18. 16 of your letter, with regard to item 13. I have one straight edge but it is 3 ft long only.
- 3. With reference to your second letter of the 9th June concerning Hv phasing rods, I confirm your choice of 'Edgcumbe Peebles' as the most suitable.
- regarding time schedule of building erection and the reservation of the services of erectors. I understand from Mr Royans that the question of estimating the time of when the building would be ready to receive the plant was discussed after your letter had been sent and that he undertook to inform you as soon as possible after his return and appraisement of the building situation what/ of/the time schedule would be. As previously mentioned he has only just returned and has not had sufficient time to give an assessment, as soon as I receive this I will telegraph it to you.
 - Regarding the reservation of the services of the erectors, this will of course depend upon two factors, 1. the date still to be estimated of when the building will be sufficiently advanced to receive the equipment and 2. available transport U.K. to the Falklands You are aware that our communications for the erectors. It is - idently anticipated that that in a month or so there will be a regular air service by flying boat between here and the Argentine mainland which will continue until a permanent land based service is established. No reservation for passages should therefore be made for the erectors to travel by the charter vessel 'AES'. Directly a provisional air flying schedule is published I will inform you of it. From the above you will understand that I am unable at this time to advise on the date that you should engage erectors services, directly the two deciding factors are known I will telegaph you.

the machinery on it's arrival without the services of the mechanical erector, I assume you will ensure that all of the jacking and moving equipment is included with the first shipment and sufficient instructions are sent in respect of the placement of the engine jacking brackets through the crates and on to the engine. I was pleased to note in view of the need to store the first consignment of machinery that you are supplying tarpaulins.

Yours sincerely

D.A.Buss Esq. F.I.E.E., Q. Dept. Crown Agents,

h, Millbank, LONDON. S.W.1.

cc File 1714/0

Supt. P & E Dent.

ECG.

From	CROWN AGENTS
To	COLONIAL SECRETARY

Despatched:

12th August

*19*71

Time: 1640

Received:

13th August

1971

Time: a.m.

For Gutteridge

Solid interconnection of Busbars of MV Boards may create synchronisation or other operational problems if so do you wish us provide spare 200A switch-fuse on new MV Board

CROWN

PL: HT

raphy at 230

(30)

OVERNMENT TELEGRAPH SERVICE



FALKLAND ISLANDS

Year' 15142--821 594579/790928 500 pds 12/68 Gcp.782

SENT

Number	Office of Origin	Words	Handed in at	Date
	PSY			16.8.71
To LTF CR	OWN LONDON SW1			HO A/C

No. 172 328

YOURTEL 12TH AUGUST Q367/36 STOP AS THERE IS THIS POSSIBILITY PLEASE PROVIDE SPARE 200A SWITCHFUSE

GUTTERIDGE

HRT.

Time

1714/0

DECODE.

TELEGRAM.

From BUSS CROWN

To COLONIAL SECRETARY

Despatched: 19th August 1971 Time: 1405

Received: 19th August 1971 Time: 1530

Yourlet 5th July Please cable manufacturers name and transformer type reference numbers

BUSS CROWN

PL: HT

Repey at 232



FALKLAND ISLANDS

SENT

WAP 15142-821 584578/790938 500 pds 12/63 Grp.782

Num	ber	Office	of Origin	Wor	ds	Handed in at	Date
		P	SY			11.	20.8.71
То	MTF	ORO4H	TOMBON	SW1			HO A/c

No. 178

YOURTH 18TH 0367/36 FOR BUSS TRANSFORMER ONE METVICK SERIAL E831354 S DOIFIGATION 167412 DRAVING D5031472 YEAR 1950 UTOP 2ND ABI SERIAL W102026 SEEGIFICATION 171132 DIAGRAM 04193727 YEAR 1961 BOTH 250KVA COLONIAL SECRETARY

233

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

Number Office of Origin Words Handed in at Date

PSY

15.9.71

To

LTF CROWN LONDON SW1

HO A/C

No. 200 WIM 5 PE

YOURLET 19TH AUGUST 02/367/36 PARA 2 SUBPARA A I CONFIRM STANLEY WIST HV AND MY CABLES ARE OF SUFFICIENT LENGTH SUBPARA C I CONFIRM UNDERGROUND JOINT HOT REQUIRED SUBPARAS D E STANLEY MY EAST AND KEWH LT CABLES TESUFFICIENT BY 33 AND 15 YARDS REQUIRED OR ALTERNATIVE TO RENEW 70 YARDS MY 55 YARDS MY CABLES REQUIRED WITH RESPECTIVE POLE DIVIDING BOXES PARA 3C 33 YARDS FLEXIBLE MY REQUIRED SUBPARA D 30 YARDS LY SUFFICIENT PARA 5 PROPOSE MY MY TEMPORARY CABLES CONNECTED GLANDLESS TO RESPECTIVE OCBS SWITCHFUSES YOURTEL RE-SYNCHRONISATION I HAD PLANMED USING SPARE 200 AMP FUSESWITCH OF MY BOARD TO ISOLATE TEMPORARY CABLING STOP BICC MYTOOLS AVAILABLE ON25 MRACQ Y35 ED6 DIES U26YDF U6CYDM U2YCM U2YCD U26YC U2YICH W161 W163 W166 CONFIRMATORY LETTER FOLLOWS

GUTTER IDGE

HRT.

Repty 1 234

233

From	CROWN AGENTS		
To	COLONIAL SECRETARY		
Despatched :	17th September	<i>1</i> 9 71	Time: 1716
Received:	17th September	<i>19</i> 71	Time: a.m.

For Gutteridge:

Thank you your cable 16th reference our letter 19th August para 1. Please also send Schematic line diagram of existing HV System giving type size and length of circuits location of substations, etc.

CROWN

S.P.E.D.,

For metrin o to Advance copy from b.c. pl.

S.P.E.D.,

S.P.E.D.,

PL: HT

C.S.

Motest thank you, I don't think un amount is necessary to the telegram? copy witholiam at B.c.

22/9/7

By 29.9.71 (action?)

Frown Agents Ref: 2/367/36.

16th September

71 .

Dear Mr Buss.

Stanley 'B' Power Station.

Thank you for your letters of the 10th and 19th August 1971, the former cocerning the engine trailer and enclosing drawing No. MW1423, the latter concerning cabling in the 'A' and 'B' Stations and enclosing drawings 231/7 and 331/8A. For information, I also received from your Department under reference 2/367/38 four copies each of the foundation and building drawings.

- 2. Referring to your letter of the 10th August regarding the trailer and jetty loading. I have spoken to the Falkland Islands Company Representative here who is directly concerned with the jetty, he is quite happy about a load of 11½ tons and is confident there is no cause for concern on this point. The trailer as illustrated looks completely satisfactory and should continue to be a useful item of equipment.
- J. Turning to your letter of the 19th August para. 2. subparas. a.b.c.d. and e.
- i. Both the H.T. and L.T. cables from the west will be routed as you have shown, additional cable will not be required.
- ii. <u>Pictons Substation</u>. The H.T. underground cable feeding from 'A' Station to the substation is jointed some 4 yards from the north wall of the 'a' Station, there is ample cable length to enable the joint to be discarded and the cable to be fed into 'B' Station as shown on drawing.
- iii. Stanley East H.T. Cable. This cable takes the route I have shown on the corrected drawing 331/7.
 - (a) A joint or link could be made inside the 'A' Station.
 - (b) An underground joint could be made on the outside.
 - (c) The cable could be renewed.

If either (a) or (b) is adopted, 33 extra yards of 0.05 sg.in 3-core PILCSWA cable would be required with suitable joint boxes. If (c) is adopted, 70 yards of similar cable would be required together with a pole mounted dividing box suitable for Tixing to a steel pole of 3 inches diameter.

- iv. KEMH. L.T. Cable. As with the Stanley east H.T. cable, it is of insufficient length and the same alternatives apply. To joint would require an additional 15 yards of 0.10 sq.in. 4-core PILCSWA. cable and to renew would require 55 yards together with suitable indoor or underground joint boxes or vertical pole mounted dividing box suitable for fixing to a wood pole.
- 4. The position regarding additional cabling is now:- Stanley East H.T. 33 yards if jointed 70 yards

- if renewed of 0.05 sq.in. 3.3 Kv. PILCSWA. cable. (3-core).
- ii. KEMH. L.T. 15 yards if jointed, 55 yards if renewed of 0.10 sq.in. 4-core 600v. PILCSWA. cable
- iii. Flexible H.T. 33 yards 3.3 Kv, 3-core, current carrying capacity 100 amps.
- iv. Flexible L.T. 30 yards 600 volt 4-core current carrying capacity 200 amps.
- v. Cable joint and terminal boxes and types will be determined by the cabling method you adopt.
- vi. <u>Change Over Switch.</u> One three phase, 100 amp change over switch. Optional, please see my para. 8. below.
- 5. Referring to your comments regarding cable capacities. These should be adequate as I do not anticipate any significant change.
- 6. BICC-Burndy Tooling.

Tool types on hand; OH25. MR4QC. Y35. MD6. Dies: U26YDT. U26YC. U6CYDM. U2YCM. U2YCD. U2YLCM. W161. W163. W166.

- 7. Temporary Link Connections. I plan taking these directly to the outgoing or incoming connections of the H.T. and L.T. OCBs. and switchfuses without glands.
- 8. Referring to your telegram of the 12th August 1971 concerning an additional 200 amp fuseswitch on the M.V. Board. I assume this is to perform the operation of the change over switch I have shown on the enclosed diagram (A). It would connect 'B' Station M.V. distribution board to 'A' Station L.T. busbars, enabling 'B' services to be tested before starting 'B' main engines and also during the preliminary tests of the engines. A change over switch would have the advantage, (provided the permanent 'B' M.V. Board Station Services fuseswitch was locked open throughout) of not allowing inadvertent live paralleling of the 'A' and 'B' M.V. Boards, admittedly this could happen through the main flexible connection but it does diminish the possibility. An additional fuseswitch as you have suggested would serve similarly.
- 9. I note now that it is not intended to fit surge arresters, my letter of the 4th November, 1970, page 2. and your subsequent meeting with Mr T. Lake at Bedford on the 26th January, 1971 refers.

I should mention in this context that there are no lightning arresters fitted to either the H.T. or L.T. overhead distribution lines, the H.T. network does however carry an overhead earthed wire throughout which to some degree will reduce the line potential due to static charges. I would be pleased if you will advise whether some type of line arrester should be fitted, having in mind that under the present system the alternators are afforded some protection by the intervention of the power transformer.

- 10. Reverse KVAr. protection is being fitted for field failure, pole slipping etc. but no provision is made for reverse power. Perhaps you would care to comment on this. I mention for the reason that some years ago I contemplated fitting it to our present machines after a motoring incident due to fuel failure on a loaded machine. It was not installed because it would have meant major alterations to the machine OCBs. which are hand operated.
- I have enclosed a copy of the building time schedule produced by Tom Royans. Work has now begun in earnest on the foundations and should continue without interruption. The time schedule may be a little on the optimistic side, but that is only my opinion, Tom is confident that it will not be too far out. In this respect it would seem appropriate to arrange for the Mechanical Erector to arrive in March and the Electrical Erector in May. I regret I have no news yet of any air itinerary from the mainland to the Colony.
- 12. The charter vessel M.V. AES. left London a few days ago and I anticipate that she will have loaded the items scheduled for delivery as shown on your "Manufacturing and Delivery Programme" reference DIA/Q Falkpower 0/53100/1. together with the supplementary items as already advised for the building.
- 13. I have enclosed a schematic layout of the H.T. Distribution system as asked for in your telegram of the 17th September 1971.

We are now getting into the better weather things seem to be going along as smoothly as can be expected, we have struck an unexpected rock outcrop in the building area, this is being gradually blasted out. Kindest regards.

D.A. Buss Esq., FIEE., Q Dept. Crown Agents, b, Millbank, LONDON S.W.1.

Sincerely,

c.c. Col. Sec. 1714/P.

Enclosures.
Proposed Change over
Procedure.
CAs. Drawing, 0331/7.
H.T. Distribution System.
Work Programme.

Supt. P & E Dept.

Proposed Procedure for Commissioning and Distribution Cable Transfer 'A' to B' Station

With temporary inter-connecting cables connected as shown and with 'B' Station M.V. Distribution Board inter-connected via a temporary 3 Ø change-over switch connected as shown; Assume 'A' Station is on load with outgoing distribution cables connected to 'A' Station feeder OCBs., 'B' Station sets are now required to be tested on load.

1. 'B' Station.

All OCBs. and Fuseswitches of the H.T. and L.T. Switchboards are chacked as being 'Open'.

- 2. The temporary C.O. Switch, Station Distribution Board, is checked as being in the 'A' position with the Board receiving it's supply from 'A' Station.
- 3. The machine for test is started up, checked and it's OCB. closed. The H.T. Switchboard is now alive.
- 4. The H.T. Station Transformer O.C.B. and corresponding h.T. Fuseswitch is closed.
- 5. The Station Distribution Board Switch on the M.V. Board is closed.
- 6. The C.O. switch 'A' to 'B' Station Distribution Board is changed to the 'B' position and any motors re-started as may be necessary.
- 7. The H.T. and L.T. temporary inter-connecting 'A' to 'B' link cable OCBs (spare) and Fuseswitch are closed.

'A' Station.

- 3. Load is now shed by opening the distribution H.T. and L?T. OCBs.
- 9. Transformer H.T. and L.T. OCBs. are opened and isolated.
- 10. Machines are shut down.
- 11. Machine OCBs. are opened and isolated.
- 12. H.T. and L.T. temporary inter-connecting 'A' to B' Station link cable OCBs. (spare) are closed.
- 13. Distribution OCBs. are closed and 'B' Station takes up load.
- 'A' Station is now required to take back the load from 'B' Station.

'A' Station

- 1. H.T. and L.T. distribution OCBs. are opened.
- 2. H.T. and L.T. temporary inter-connecting 'A' to 'B' Station link cable OCBs. (spare) are opened.

- 3. One machine is run up, it's OCB is closed livening up the Station distribution board and enabling the cooling radiator fan motor to be started.
- 4. Sufficient load is applied by closing the L.T. distribution OCBs to enable other machines to be synchronised on to the bars and the remainder of the load connected. 'A' Station will now have the load.
- 5. B' Station. All H.T. OCBs and L.T. fuseswitches are opened.
- 6. Machine/s are now closed down.
- 7. Temporary change over switch at distribution board is switched to 'A' position.

It will follow that with one machine in 'B' operating on load, another 'B' machine could be operated and the load transferred.

Transfer of Distribution Cables from 'A' to 'B' Station.

When 'B' Station machinery and switchgear has been proved, transfer of distribution cabling will be carried out from the 'A' distribution OCBs to the 'B' distribution OCBs and switchfuses.

There is on hand sufficient temporary link cable both 3.3 Kv. and 600 volt grade of suitable capacity to feed singly the H.T. and L.T. distribution poles, these will be connected from the vacant H.T. and L.T. 0CBs or fuseswitches of either 'A' or 'B' Station while permanent re-connections are made from the underground cables to their appropriate OCBs or fuseswitches in 'B' Station. Regarding the re-connection of Pictons substation which is fed entirely underground, provision can be made whilst the re-connection is made to feed the outgoing circuits from the substation from another source.

Safety Precautions During Transitional Stage.

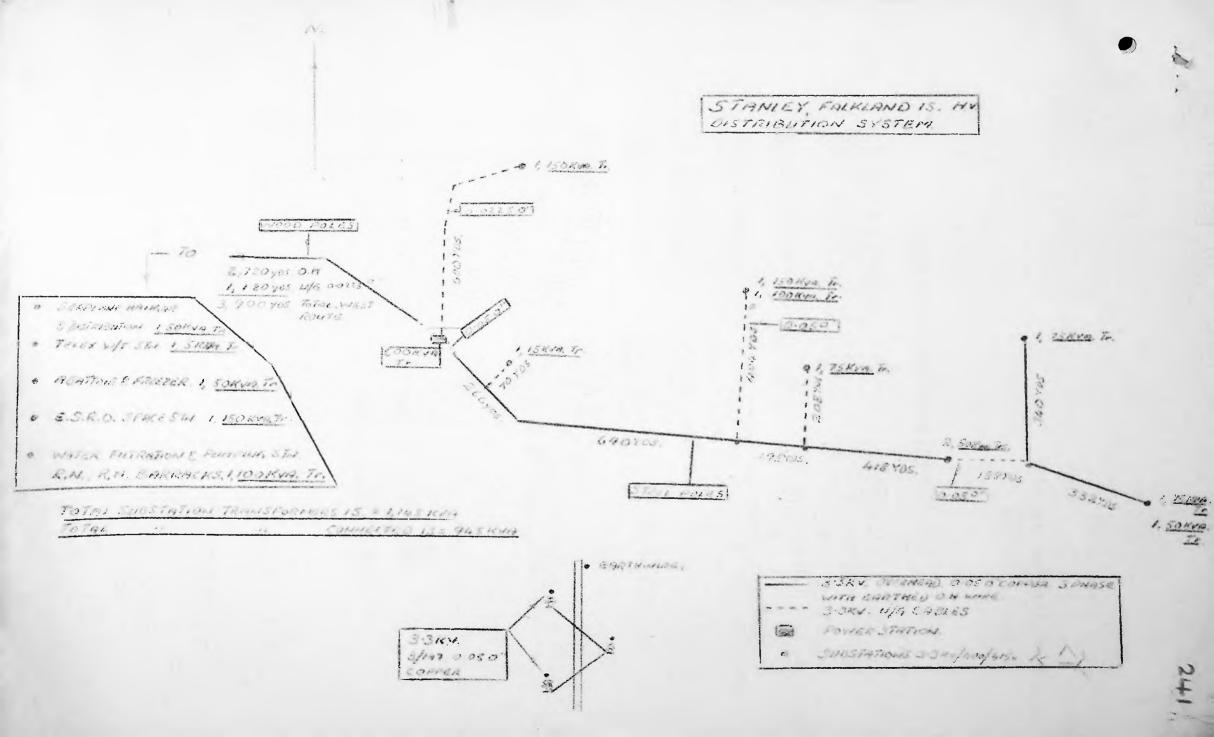
During the tests on 'B' and it's commissioning great care will need to be taken to ensure that with machines of both Stations running, that a closure is not attempted of an OCB of the "Off Load Station" I propose.

Compile a list in order of operation, the switching procedure to be followed for change over of load from 'A' to 'B' and vice versa.

Have one Operator only to carry through the entire change over.

Arrange for the appropriate "Live" and "Dead" notices to be posted on the switch and control gear.

I anticipate the period of outage will be of the order of ten minutes.



Your Ref: Q 367/38 Our Ref: PWD 042.

To; The Grown Agents, Q Department, L, Millbank, London, S.W.1. 26th. August, 1071.

c.c. The Colonial Seretary, Supt. P & E Dept. Mr J.R. Rowlands.

FALKLAND ISLANDS POWER STATION.

The following is, as near to accurate as I can gather, on present day conditions, in consultation with Mr Rowlands the Contractor, it is assumed that labour, weather conditions etc., prevailing, the programme will be :-

September-October: Excavation, site preparation, setting out and drainage.

November-December

A part of January: and column bases, cable ducts, retaining walls, access road and floor slab.

January-February. Building erection and complete roof, Block waals.

February-March. Approximate time for installation of Generating sets.

March-April. Complete Block Walls, apron, covered way and all cladding.

May Onwards: Fittings, Fixings and making good after Mechanical & Electrical Rrectors, to completion.

Sgnd. T.W. Royans.

Superintendent of Works.

1714/P

CAs. Ref; @/367/38.

24th September

71 .

Dear Mr Ferney, Stanley B' Power Stn. Falkland Is.

Thank you for your letter of the 21st July,1971. I have received all of the drawings listed in your para. 1. subparas. a.b. and c. I have passed on the instructions contained in the subsequent paras. 2. to 17. to-gether with the seperate instructions for the erection of the steel work of the building and the casting of the generator set foundations to Mr Royans our Superintendent of Works.

Yours sincerely

c.c. C.S. File 1714/P.

Supt. P & E Dept.

ECG.

21st October

71.

Dear Mr Buss,

Stanley 'B' Power Station.

You will be interested to know that the first shipment of Allens equipment, e.g. Engine, Alternator, etc. etc. has arrived and is safely ashore, we are now in the process of sorting and stowing it. A thorough inspection has not yet been made of the contents of the numerous cases but none of the cases showed any external signs of damage. The Engine of 7½ tons was in fact unloaded this morning on to the trailer, it is now in an open yard covered with one of the three tarpaulins with jacks under the trailer chassis to relieve the weight on the tyres, I am hoping to get it under cover within the next week.

The building foundations are now fully excavated and the concrete pillars for supporting the the stanchions are two thirds completed. Work is going ahead constructing the engine foundation shuttering, I would say that the building time schedule enclosed in my previous letter of the 16th September, is up to date.

On enquiring recently to the local Falkland Islands Company's office regarding passage availability next year I was told that to the best of their knowledge the charter vessel M.V. AES. will sometime in April of 1972 sail from Stanley to Deseado, a port on the Argentine coast, and return to Stanley before sailing north to Britain. The itinerary is not known in detail here, it is formulated in the Company's London Office. I suggest that the Mechanical Erector is booked to travel by AES. after you have discovered from F.I.C. London, ETAS. and ETDs. Deseado-Stanley. There is an airport at Deseado served by the Argentine internal air service "Aerolineas". My telegram of the 10th October refers.

I will be pleased to receive as soon as they are available details and wiring layout of the switch-gear, engine services and maintenance manuals, also any information you may have obtained with regard to the modification of the 250 Kva step up transformers previously mentioned in my letter of 5th July.

All seems to be going well to date, we have no electrical problems with the existing Station, the weather has been extremely kind and helped in getting on with the building works. Kindest regards.

D.A.Buss Esq. FIEE., Q. Dept., Crown Agents, 4, Millbank, London, S.W.1.

c.c. Col. Sec. 1714/P.

Sincerely,

Supt. P & E Dept.

Pa V

TELEGRAM.

From	BUSS CROWN	********************	*******
To	COLONIAL SECRETARY		
Despatched :	28th October	1971	Time: 1645
Received:	29th October	1971	Time:

Attention Gutteridge to assist negotiation erector contract Please advise

- (1) Number and type local support staff
- (2) Will you uncrate plant?
- (3) Confirm government will provide at own expense board lodging for erectors

BUSS CROWN

See 250

S.P.E.

To advise pl. o wildraw enpy

PL: HT

Copy to S.P.E.

C.S. Please see overlish

29.10.71

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

P2538 P4776/32/401381 500 111/66 R. Ward 843

PSY Words Handed in at Date

PSY 2.11.71

To LTF BUSS CROWN LONDON SW1 HO A/c

No. 239

247

"O" DEPT FOR ATTENTION BUSS YOURTEL 28TH OCTOBER

- (1) ONE OR OTHER FITTER/ELECTRICIAN BOTH VERSATILE PLUS ADDITIONAL UNSKILLED HELP AS REQUIRED STOP TOTAL STAFF ONE MAINTENANCE FITTER THEME ELECTRICIANS
- (2) YES BUT WOULD PREFER ARRIVAL ERECTOR BEFORE UNCRATING ENGINES
- (3) I CONFIRM GOVERNMENT WILL PROVIDE AT OWN EXPENSE BOARD AND LODGING FOR ERECTORS

CUTTERIDGE

Time

IIII.

TELEGRAM.

From	BUSS CROWN	***************************************	
То	COLONIAL SECRETARY		
-			
Despatched :	2nd November	<i>19</i> 71	Time: 1545
Received:	2nd November	<i>1</i> 971	Time: 1400

247

Q36736 for Gutteridge amplifying ourtel 281071 Item 1 is mechanical support as para eleven of meeting 28970 to be matched by electrical. Item 2 propose uncrating await allen erector. Item 3 we assume Government will make direct payment for board lodging yourlet 16371 rather than Allen's include in their costs also provide local transport for erectors immediate reply requested to conclude contract copy being sent to you

BWSS CROWN

Repry et 25.

PL: HT

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

P2538 P4776/32/401381 500 11/66 R. Ward 843

Number Office of Origin Words Handed in at Date

PSY 5.11.71

То

LTF CROWN LONDON SUL

HO A/c

251

No. 240

250

Q36736 FOR BUSS YOURTEL 21171 ITEM 1 ELECTRICAL SUPPORT AS HECHANICAL ITEM 2 AGREE ITEM 3 YOUR ASSUMPTION CORRECT STOP YOURLETS 28TH 971 5TH 18TH 19TH AND 21ST 1071 JUST RECEIVED

GIMTERIDGE

c.s. . /////

You asked about arrangements regarding accommodation for the Erector. The S.P.E. has made a provisional booking at the Upland Goose Hotel (from mid-April on the return of the "A.E.S." from Puerto Deseado).





71 .

1714/2

Your Ref:- 0/367/36.

5th November

Dear Mr Buss, Stanley 'B' Power Station.

Thank you for your letters of the 28th September, 5th. 18th. 19th. and two of the 21st October 1971. together with their enclosures, all concerning various and related matters of the Stanley 'B' power Station and Electricity Supply. Referring now to:-

Letter 28th September. Amendment to Poundation Drawing No.33:/8A sheet 1 of 2.

I have passed this minor amendment on to the Supt. P.W.D. for attachment to the main drawing.

Letter 5th October. Covering Letter for Diesel Engine & Panels Drawings.

I have not yet studied the drawings in detail but I note that reverse power protection as well as reverse KVAR is being fitted to the alternator panels. I had previously queried whether reverse power had been included and was pleased to note that it is.

Letter 18th October. Burndy lugs, Cheque Plating. Firing for Lighting & Power.

Your para. 2. Cable lugs, those regired for:-

(a) 3 core, 25 sg. mm. (196/0.40 mm) copper conductors, EPR insulated/proof taped. OPS sheathed, 3,300 volt.

HYLUGB. Stud size 5/16th in. Cat. No. YAV2C-RS2. Nest die only. UV2CD.

(b) 4 core, 35 sq.mm. (475/0.50 mm) copper conductors, EPR insulated, CSP sheathed, 600/1,000 volt.

MYLUGS. Stud size ½ in. Cat. No. YAV28-RS12. Nest die only UV28D.

Note; I have the Y35 Hypress tool but not the dies needed. Should an Indentor be required, these should be ordered as well, their respective numbers are; Y29PQ-14F and Y29PQ-12F.

Your para. 3. Chequer plating. As you say the cut-outs for piping, cabling etc. will not be known until the final stages. To hold back delivery on this account could be lengthy indeed. There is on hand burner equipment for plate cutting, it may well be better to leave this as an on site job.

Sec 257.

Your para. 4. Wiring for lighting and power. I note and agree that the permanent cables for generation and internal distribution up to the distribution boards and on to the radiator fan motors will be copper conductors PVC insulated armoured and sheathed with PVC.

I note your suggestion with regard to wiring from the distribution boards to the 13 amp power points, to trunking for suspending the internal and external lights, be in heavy gauge galvanised conduit. I am agreeable to this but suggest as an alternative, to allow for trunking around the walls to earry wiring for all services and from which additions at some later date could easily be made. ??. The use of the "UNISTRUT Fluorescent Lighting Trunking" should be ideal for general inside lighting purposes.

Letter 24st October. Use of existing 250KVA step up Transformers.

I am very grateful for your help on this problem. I have on hand one each of 50 and 400 kVA step down transformers which if connected as Alternative 'B' of your diagram Q331/14 can give a wide range of KVA capacity and should prove useful as a possible bank up to the Station transformer or if it becomes necessary to supply the R.Es. Construction Camp.

Letter 21st October. Earthing Stanley 'B' Power Station.

- Referring to the above subject of earthing, during the excavations of the 'B' building site it has been discovered that along the east side of the building the ground is made up, having been back filled after quarrying to a varying depth of 2-5 ft. The back fill comprises an assortment of gravel mixed with bric-a-brac of quarrying machinery. Along the west side there is peat top soil of depth 18 inches into clay and rock ridges. Minor but persistant underground springs seep through the excavated site from the south, these in some cases originate behind Stanley 'A' or possibly under 'A' which is sited on the old quarry workings. Supt. P.W. has laid drainage ways to to take this seepage to the outside north east corner of 'B' where he intends to construct a drainage silt pit of approximate depth of 6 ft. 10 to 12 ft. north of the north east corner of 'B'.
- 2. The earthing pit shown on your drawing No. 0/331/7. which is a few feet north off the south east corner would at a depth of five feet be in clay with some rock, above this would be mainly rubble. It is however damp, during our recent dry spell I have noticed that this dampness has persisted. I would suggest that the earthing pits might be on the outside N.E. and S.E. corners, one being as shown on your drawing 0331/7.

The existing earthing for Stanley 'A' was placed in the outside corner of the N.E. wall of 'A' and comprises of a coil of 0.04 sq. in. copper conductor which is also tied in to the main underground water pipe feeding the town reservoir. Using an "Evershed" earthmeter megger the earth resistance has been found to vary from time to time to between 0.5 and 1.3 ohms. It has been satisfactory.

Letter 19th October.

Projected Airport, Pembroke Peninsular Load Requirements and Parallel Operation of Stanley 'A' & 'B' Stations.

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- The purpose of my personal letter to you on the above subject was to give an introduction to Col. Wheatley to yourself. To establish a liaison that may prove useful in cutting corners. To put you in the picture with regard to the proposed airport project in the event of it affecting the project on hand and finally to obtain your views of operating the two Stations in parallel should such a need arise.
- letter in reply and for the diagrams you enclosed illustrating the alternative arrangements should paralleling become necessary, also for your observations and comments in respect of tariff. Col. Wheatley had previously raised that question here. The question of tariff as it would concern his detatchment would in any event be the subject to be decided by the two governments when estimating capital costs and might well lie outside the accepted formula. A flat rate tariff is of course non-promotional but there are some unavoidable factors that preclude the introduction of a second tariff.
- 3. The Colonial Secretary, through whom all external correspondence is passed, reminded me that I must ensure that I do not involve your Department in matters outside the terms of the Power Station Project for which funds have been allocated. He is however aware that with the approved project thereo is likely to be some over-lapping with related propsed projects.
- h. I have enclosed for your records some data in respect of loadings etc. some of which are assessed through lack of instrumentation.

Generally.

Since my previous letter of the 21st October I have received your telegraphic enquiries with regard to support staff for the erectors. I hope my replies have enabled you to proceed with drawing up and concluding their engagement. You will be aware that there is a small staff only of tradesmen in the department, I am also aware that Allens will require certain garantees for back up to their erectors.

There will permanently be one fitter/mechanic and one electrician available with further support if required. Accommodation has been provisionally booked for the Mechanical Erector in the local Hotel, "The Upland Goose" transport will be provided between there and the Power Station site, about seven minutes walk away. This accomodation and any other valid expences within the terms of the contract that are incurred locally will be paid from here. I anticipate no problems here.

- Work is proceeding on the foundations of the building and our major concern is that all will be ready for the Erector when he arrives next April, the die having been cast for his date of engagement.
- If the airport project is approved it will be an added complication at this particular time which I could have well done without, I am fortunate however in that we are experiencing no troubles mechanically or electrically with 'A'. Thank you again for your letters and information on the technical matters I had previously enquired upon.

D.A. Buss Esq. FIRE., 2 Dept. Grown Agents, London. S. V. 1.

Yours sincerely

c.c. Colonial Secretary, E.C.Gutteridge. File 1714/P.

ECG.

DECODE.

TELEGRAM.

From	BUSS CROWN		
To	SECRETARY STANLEY		
Despatched :	22nd Hovember	1971	Time: 1653
Received .	22nd November	1071	Time .

Q367/36/2 for Gutteridge. Further ourlet 19th October. Please advise full details manufacture and type of voltage regulation and speed control equipment of sets in station "A"

BUSS CROWN

Reply at 261.

TELEGRAM.

From	SECRETARY STAFFEY		
To	CROWN LONDON		
Despatched:	24th November	<i>1</i> 971	Time: 10.00
Received :		19	Time:

No. 253

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Q367/36/2 from Gutteridge. Yourtel 22nd Blackstone EPV6/ Crompton 150 KW sets Blackstone centrifugal governor engine hand-controlled plus minus 7% normal AVR Isenthal type MS vibrating contact connection quadrature. Mirrlees centrifugal governor hand-controlled AVR Stone type 21 MT carbon pile re-arranged locally from a static to QCC to parallel with Blackstone sets

SECRETARY

PL: HT

Copy: S.P.E.

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Dear Mr Buss, Stanley 'B' Power Station.

Me recently received another influx of mail, your letters of the 8th. 9th and 40th of Movember were received together with enclosed drawings, diagrams and test reports of the engine and alternator. I note there was some concern over the alternator repor temperature which was 5.5d.C. higher than permitted, but was pleased to note this trouble was evercome by a modification to the flywheel screen.

I have studied the drawings and diagrams and have no comments, all appears straight forward, there may be minor alterations I have to make in respect of siting the earthing plates.

- I believe the building time schedule is falling a little behind. S.P. With the Contractor are ensuring that all is done exactly to your building specifications, in fact more so, for he has built a complets reinforced concrete beam along the whole of the north face following round into the east and west walls by two pillar distances to support the dwarf block walls. In addition he has built a concrete block wall around the perimeter of mass concrete foundation of the future set to within a foot of finished floor level. The object being to contain the backfill when the site is required to be excavated, it will also assist in the construction of a future engine block. Mass concrete is now being laid for the three running sets and shuttering for the engine blocks is being made up. The remaining concrete supporting pillars for the stanchions are being cast at There is not a great deal to show for this moment. the amount of work that has been done as a lot of detail work is required at this stage and will continue until the engine blocks and the ducting are complete, after which progress should be more apparent.
- I answered your telegram of the 19th October with regard to the manufacture and type of voltage regulation and speed control of the existing machines. I assumed you needed this information in connection with the possibility of operating the two stations in parallel. You will now be aware that the R.Es. are not now building the Airport. It is unlikely therefore that paralleling will be necessary, that is as far as the R.Es. are concerned. I would be pleased and interested to learn if, as a result of your investigations, there would be any objection should it be necessary. From the information I have to date I have not been able to discover whether 'B' AVRs. will be QCC. or Astatic, if the latter I assume there would be difficulty in paralleling.

With regard to your second telegram of the 19th October. I have been endeavouring to obtain from 8.P.W. the lastest estimate of all local costs as you had requested. I regret I have not yet received these. Since the commencement of the project from my own accounting, £5,283-34 has been spent locally. The original estimate produced by S.P.W. for local costs, that is site and building costs was £8,000. Following his discussions at your office and on his return, he told me that he anticipated a further £3,000 would be required, totalling in all £44,000 for local works, but I have had no formal confirmation from him on this. Directly I receive his final figure I will telegaph it to you, I hope I am able to do this before you receive this letter.

- Air and sea transport is and will remain a problem until we have established a permanent airfield. Although as mentioned earlier I believe the building schedule may be slipping, the Contractor is quite confident that he will be ready for the Mechanical Erector in April, I hope he is right for we have no room to manoeuvre. I will leave the booking of the Electrical and Commissioning Engineers as long as you can permit me to.
- 6. All is well otherwise. Thank you for the information on the extraneous problems, this has been most useful and your letters on these problems are the subject of a separate letter from the Colonial Secretary's Office.

Thank you for the Christmas card bearing yours, Mr Suggate and Mr Norman's signatures. Seasonal Greetings to you and all of your colleagues.

Sincerely,

Supt. P & E Dept.

D.A. Buss Esq. FIME., Q. Dept., Crown Agents,

cc. to; C.S. File 1714/P.

ECG.

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TELEGRAM.

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From	BUSS UROWN		
To	SECRETARY STANLEY		· · · · · · · · · · · · · · · · · · ·
Despatched :	26th November	<i>19</i> 71	<i>Time</i> : 1716
Received :	26th November	1971	Time:

Attention Gutteridge reference drawing 331/8A Unistruts to be embedded at three foot centres and located along east face of HV switchboard trench and south face all other trenches

BUSS CROWN

Des Seen thank your Drawing amended according 5

PL: HT

8.10/12/71