

# CABINET MINUTE

BRISBANE, 11 12 1986

DECISION NO.

48046

SUBJECT: Queensland Electricity Commission - Settlement of Claim for  
Extras - Contract No. 33/23 Electrostatic Precipitators -  
Tarong Power Station - Contractor - Lurgi (Australia) Pty. Ltd.

(Submission No. 43310)

Copies Received at 4:00 a.m. 6 12 1986 Mr. Gilis  
 p.m.

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## CIRCULATION DETAILS

1	GOVERNOR		21	Decision File	
2	SIR JOH BJELKE-PETERSEN	<i>af</i>	22	<i>DEC</i>	
3	MR. GUNN	<i>af</i>	23	<i>af</i>	
4	MR. HINZE		24	<i>af</i>	
5	MR. WHARTON		25	<i>af</i>	
6	MR. GIBBS	<i>af</i>	26		
7	MR. AHERN		27		
8	MR. LANE		28		
9	MR. GLASSON		29		
10	MR. AUSTIN		30		
11	MR. POWELL		31		
12	MR. TURNER		32		
13	MR. LESTER		33		
14	MR. TENNI		34		
15	MR. HARPER		35		
16	MR. MUNTZ		36		
17	MR. McKECHNIE		37		
18	MR. KATTER		38		
19	MRS. CHAPMAN		39		
20	Master File		40		

Copy of relevant  
 Submission attached



C O N F I D E N T I A L

20

C A B I N E T                      M I N U T E

Copy No. \_\_\_\_\_

Brisbane, 11th February, 1986

Decision No. 48046

Submission No. 43310                      TITLE: Queensland Electricity Commission -  
Settlement of Claim for Extras -  
Contract No. 33/23 Electrostatic  
Precipitators - Tarong Power  
Station - Contractor - Lurgi  
(Australia) Pty. Ltd.

CABINET decided:-

That the claim by Lurgi (Australia) Pty. Ltd. for extras under Queensland Electricity Generating Board Contract No. 33/23 be settled in the manner set out in the schedule attached to the Submission and that the approval of the Governor in Council be sought for the additional expenditure involved.

CIRCULATION: Queensland Electricity Commission and copy to Minister.  
Premier's Department and copy to Premier and Treasurer.  
Treasury Department and copy to Deputy Premier and  
Minister Assisting the Treasurer.  
All other Ministers for perusal and return.

Certified True Copy

  
Secretary to Cabinet.



SECURITY CLASSIFICATION "C" - CONFIDENTIAL

Submission No. 43310

Copy No. 21

FOR CABINET

QUEENSLAND ELECTRICITY COMMISSION

SETTLEMENT OF CLAIM FOR EXTRAS - CONTRACT NO. 33/23  
ELECTROSTATIC PRECIPITATORS - TARONG POWER STATION -  
CONTRACTOR - LURGI (AUSTRALIA) PTY LTD

1. The attached memorandum by the Acting Electricity Commissioner and the detailed report attached thereto (from Commission file 33/23/11) indicates how it is proposed to settle the claim by Lurgi (Australia) Pty Ltd the contractor for electrostatic precipitators for Tarong Power Station.

2. The contractor's claim is for about \$4.8 million. The proposed settlement in round figures is \$2 050 000.

The value of the contract including escalation in accordance with contract formulae to completion will be about \$70 million.

3. Until the precipitators being supplied under the contract were commissioned, the Commission's supervising engineer and the contractor properly concentrated on performance rather than payment of extras.

The performance of the emission control system at Tarong has been good and at tests the precipitators' performance was above specified levels.

4. The negotiated settlement of the claim for extras is very satisfactory financially and is mutually acceptable to the Commission and the contractor.

5. Recommendation

I recommend that the claim by Lurgi (Australia) Pty Ltd for extras under Queensland Electricity Generating Board Contract No. 33/23 be settled in the manner set out in the attached schedule and that the approval of the Governor-in-Council be sought for the additional expenditure involved.

IVAN J. GIBBS  
MINISTER FOR MINES AND ENERGY

Brisbane,  
7 February 1986



# Queensland Electricity Commission

OFFICE OF THE COMMISSIONER

7 February 1986

CONTRACT NO. 33/23 - ELECTROSTATIC PRECIPITATORS  
TARONG POWER STATION - SETTLEMENT OF CLAIM FOR  
EXTRAS UNDER CONTRACT

MEMORANDUM

THE HONOURABLE THE MINISTER

1. The attached detailed report examines the claim by Lurgi (Australia) Pty. Ltd. for extras on the contract for electrostatic precipitators at Tarong Power Station.
2. Although notices of claims for extras were given during the course of the contract, the Commission's Superintendent refused to consider these, indicating to Lurgi that it should concentrate on performance at that stage and leave the resolution of any claims until completion of the contract. Of course, claims which were for extras that were clearly beyond the scope of the contract were admitted but these amounted to only \$373 048.

The claim now being considered which required detailed consideration and negotiation between the Commission and the contractor amounted to over \$4.8 million.

3. The determination by the Commission of the amounts which are actually payable compared with the claims are:-

<u>Item</u>	<u>Amount Claimed</u>	<u>Amount determined to be due to contractor</u>
	\$	\$
Increased construction costs	2 000 000	Nil
Accommodation costs in excess of contract maximum	450 000	450 000
Reimbursables (site allowances, transport workers to site etc.)	750 000	750 000
Variopulsing system cost	950 000	250 000
Additional manufacturing costs Claim \$660 000 but due to arithmetical error was actually \$760 000	660 000	600 000
	<u>\$4 810 000</u>	<u>\$2 050 000</u>

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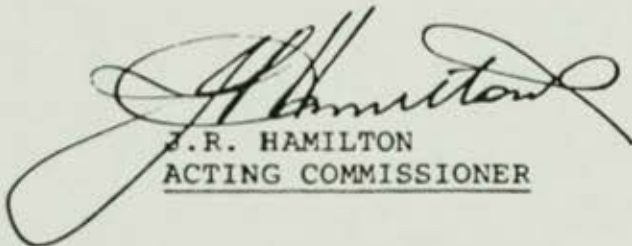


The contractor, with some protest about certain items, has agreed to accept the determination.

4. I am happy with the proposed settlement of Lurgi's claim.

5. Recommendation

I recommend that the amounts payable under Contract No. 33/23 - Electrostatic Precipitators - Tarong Power Station be increased to provide the settlement of a claim for extras of \$4.8 million by the Commission agreeing to pay extras totalling \$2.05 million as detailed in the attached report.



J.R. HAMILTON  
ACTING COMMISSIONER

QUEENSLAND ELECTRICITY COMMISSION

CONTRACT NO. 33/23  
ELECTROSTATIC PRECIPITATORS  
TARONG POWER STATION

REPORT ON CONTRACTOR'S CLAIM FOR ADDITIONAL COSTS

INTRODUCTION

1. At the meeting on 18 December 1980, the Queensland Electricity Generating Board accepted the tender of Lurgi (Australia) Pty. Ltd. for provision of electrostatic precipitators at Tarong Power Station, in accordance with Specification No. 33/23, for the sum of \$51 194 931 on a variable price basis. (Memorandum No. 1650)
2. Adverse experience with electrostatic precipitators on Nos. 1 to 4 units at Gladstone Power Station and the known difficulty in precipitating dust from Tarong coal resulted in stringent requirements being incorporated in the specification for electrostatic precipitators for Tarong Power Station.
3. Seventeen firms took out copies of the specification but tenders were received from two firms only.
4. The comparative costs from tender evaluation including preference were:

<u>Tenderer</u>	<u>Comparative Cost</u> \$	<u>Preference Loading</u> <u>Included</u> \$
Flakt : Main Offer	56 490 320	1 022 430
: Alternative	56 063 912	
Lurgi : Main Offer	53 329 271	2 310 940

5. In the report accompanying Memorandum No. 1650 it was stated that "the tenders from Flakt are substantially non-conforming offers which require adjustments of \$7 155 890 to the Main Offer and \$7 764 482 to the Alternative Offer to achieve compliance. The main tender from Lurgi is a conforming offer."
6. Lurgi also offered to increase their guaranteed collection efficiency from 99.24% specified to 99.34% which exposed them to additional liquidated damages payment of \$1.3 million if the plant failed to meet performance guarantees.
7. Variations and adjustments approved to date amounting to \$18 583 804.94 have resulted in a revised contract value of \$69 778 735.94. Most of the variations are escalation and site allowance payments and only \$373 408 is change of scope.



#### CONTRACTOR'S CLAIMS

8. Lurgi have claimed extra payments to a value of just over \$4.8 million to compensate for the additional expense in meeting the Superintendent's requirements. The claim is divided into four sections:

- . Extra construction costs
- . Reimbursables and accommodation costs
- . Variopulsing system cost
- . Manufacturing costs.

#### EXTRA CONSTRUCTION COSTS

##### General

9. Lurgi claimed an additional \$2 million for extra construction costs. Their claims are based on considerations set out below; all were rejected during the course of the contract.

##### Steelwork Erection

10. The Tarong precipitators comprised Lurgi's first contract in Australia where Transfield were not the managing subcontractor. It is understood that Lurgi found it untenable to continue to use Transfield as subcontractor because of substantial contractual problems and, for Tarong, decided to provide for the first time, their own management team and R.M.W. Welding (Constructions) Pty. Ltd. were engaged as steelwork erection subcontractor.
11. R.M.W. did not possess adequate specialised experience in works of the magnitude of Tarong precipitators and progress was unsatisfactory until Lurgi appointed Mr. Herbert Dietrich as Construction Co-ordinator and acquired equity in R.M.W.
12. Lurgi claimed that they incurred substantial increased erection costs of more than \$900 000, particularly on No. 1, unit as a result of the Superintendent exerting considerable pressure on them to perform and meet key target dates. As a result of this, Lurgi claimed that, even though they believed that they could recover the position, they were forced to double their workforce to meet the Superintendent's requirements.

##### Insulation

13. Lurgi stated that they were subjected to pressure by their insulation subcontractor, Associated Industrial Insulations (A.I.I.), to meet extra costs. With the threat of withdrawal of labour Lurgi agreed to pay A.I.I. an extra \$550 000.



#### Collection Electrodes

14. Signs of recovery of the programme on No. 1 precipitator erection were evident until installation of collecting electrode plates was suspended because a large proportion would not interlock when positioned in precipitator casings.
15. Each plate is 13.5 metres long x 480 mm wide x 1.15 mm thick. Cold rolled strip coils manufactured in Lysaght's Port Kembla works were roll-formed by Hanford Industries in Brisbane prior to delivery to site for erection by subcontractor R.M.W. Welding (Constructions) Pty. Ltd.
16. Investigations by Lurgi revealed several contributing factors, commencing with the composition of the cold rolled steel strip. Implementation of improved quality control at all locations resolved the problem but not until a substantial tonnage of collecting electrodes had been rejected, removed from No. 1 precipitator casings, and scrapped. The resolution of this problem involved considerable research by Lurgi into the behaviour of cold rolled steel of various chemical compositions when subjected to subsequent treatment.
17. Lurgi sought a contribution of \$80 000 towards site costs, and a time extension. They also claimed an amount of \$350 000 which represented the component of defective plate manufacturing cost borne by Lurgi.

#### 38-hour Week

18. Lurgi claimed extensions of time and increased costs amounting to \$120 000 as a result of implementation of the 38-hour week which represented one less working day in each four-week period than the original 40-hour week.

#### REIMBURSABLES AND ACCOMMODATION COSTS

19. The contract requires the Principal to provide free accommodation to the contractor's award employees, and to reimburse all-purpose allowances paid by the contractor under the Tarong Power Station Construction Project Industrial Agreement.
20. There is an upper limit to the free accommodation provided by the Principal beyond which the contractor has to meet any additional costs of accommodation. The limit is the total provided by the Contractor in Schedule N of the Tender.

21. Lurgi have contended that the application of this provision by the Superintendent has been harsh. Lurgi increased its workforce very largely at the insistence of the Superintendent because, in the Superintendent's view, the programme would not otherwise have been met. Lurgi maintain that the accommodation limit was negated by the actions of the Superintendent. The value of the additional accommodation to be supplied free by the Principal if the limit were to be lifted is estimated to be \$450 000.
22. A corresponding limit on reimbursable allowance is not stated in the Specification. However, the Board's post tender telex of 12.11.80 stated that:

"Schedule 'N' is the contractual limit for the Principal to provide free accommodation and is used during tender evaluation of costs to the Principal due to accommodation and reimbursable items under the site agreement."
23. Even though this statement indicates a relationship between Schedule 'N' and reimbursable allowances during tender evaluation, it does not state that the contractual limit also applies to reimbursables. There was no other statement by either Lurgi or the Principal to limit the amount of reimbursables. Nevertheless, the Superintendent has hitherto held the view that the amount of reimbursables was also limited to that obtained by applying Schedule 'N'.
24. Lurgi have refused to accept that there is any limitation on the amount of site allowance payments to be reimbursed to them. Lurgi have accepted that it is their responsibility to meet increased base wages and supervision costs related to the increase in the workforce insisted on by the Superintendent but consider that the Principal should meet the reimbursable component and accommodation costs.
25. Subsequent specifications have been reworded to clarify the Commission's intentions, a fact which Lurgi have used to support their case. It is believed that, should this claim be the subject of arbitration, the Commission's case would be extremely weak. The total additional amount to be paid to the Contractor under the heading of "reimbursable items" if the limit were to be removed is estimated to be about \$750 000.



VARIOPULSING SYSTEM COST

26. For approximately the first 20 months of operation at Tarong, boiler exhaust gas conditions could not be adjusted to give specified precipitator inlet temperatures to allow Lurgi to carry out tests to determine whether or not the precipitators met guarantees. Empirical evidence offered by Lurgi indicated that the precipitators would probably do so.
27. In response to the Superintendent's expressed doubts that the precipitators would meet guarantees, Lurgi offered the simple solution of flue gas conditioning which was rejected on the basis of ongoing costs. The Superintendent insisted that Lurgi proceed with development of Variopulsing, a form of intermittent control of the high voltage supply to the precipitator. Variopulsing had previously been rejected by Lurgi as they believed it would not be effective.
28. Lurgi continued with testing and research with the object of reducing chimney emission levels even though, because of high gas exit temperatures from another contractor's boiler plant, they could have deferred corrective action until the proper contractual conditions existed.
29. Lurgi's tender included, at a price of \$800 000, a less sophisticated system than the Precicontrol Coromatic System. During pre-contract discussions, Lurgi offered to include Precicontrol at no extra charge. This offer was accepted and resulted in a cost to Lurgi stated as being approximately \$1 500 000.
30. The Precicontrol Coromatic System hardware facilitated the rapid development of the Variopulsing system software which eventually enabled precipitator performance to be achieved, even under abnormal boiler conditions.
31. Lurgi claim that in addition to the cost of the Precicontrol, they incurred costs of approximately \$250 000 for test and development work in Australia and Germany on the Variopulsing system, largely as a result of insistence by the Superintendent.
32. The end result is that the Commission now has precipitators which are far better than guaranteed whereas, without the Variopulsing, the precipitators may have just met guaranteed limits after boiler modifications had corrected flue gas conditions. Furthermore the precipitators now will meet contract performance requirements with a reduction of more than 98% in energy consumption. This saving in energy consumption alone represents an ongoing reduction in costs to the Commission of approximately \$200 000 a year.



33. Since the precipitator emission levels are well below statutory limits the probability of station output having to be reduced to meet Clean Air requirements is low, thereby leading to improved station availability.
34. The contract provides for a penalty to be applied if performance is below guarantee. There is no provision for a bonus for performance above guarantee on test results. If a bonus of equivalent value to penalty had applied, Lurgi would have been entitled to a bonus of \$2.6 million. If Lurgi had not offered a higher guaranteed performance this bonus would have been increased to approximately \$3.9 million.

#### MANUFACTURING COSTS

35. The Analysis of Tenders stated that "Evaluation of the escalation formulae and indices has determined that escalation data from each Tenderer is, for practical purposes, identical. Accordingly, no cost adjustments have been made to tender prices for escalation."
36. The manufacturing escalation formula offered by the only other tenderer, Flakt, was based on Federal Metal Trades Awards whereas Lurgi's was based on State Awards. These two awards provided similar pay rates at the tender base date but subsequently the Federal Award rates have increased faster than the State Award rates.
37. Lurgi's tender provided for manufacturing to be carried out by subcontractor Transfield who operated on State Awards, but soon after Contract No. 33/23 was awarded to Lurgi, Transfield commenced legal proceedings against Lurgi on contracts in Victoria.
38. Lurgi received approval of the Superintendent to change from this subcontractor for Tarong and the work was subsequently carried out by several Queensland fabricators, all of which were paying under Federal Metal Trades Awards. Lurgi claimed for a change in escalation base awards from State to Federal but this was rejected by the Superintendent.
39. The Superintendent approved escalation payments to Lurgi based on State Award changes, as provided in the contract, although Lurgi were paying their subcontractors escalation based on Federal Awards.
40. Lurgi stated that as a result of the Superintendent's actions they were disadvantaged financially on the manufacture of No. 1 precipitator and commenced negotiating with N.S.W. fabricators to subcontract for Nos. 2, 3 and 4 precipitators at a lower cost to Lurgi.



41. Lurgi were directed by the Superintendent that they must retain fabrication in Queensland. Lurgi accepted the direction under protest and claimed to have incurred increased costs of manufacture of \$660 000. Lurgi obtained comparative prices for about one-third of the outstanding items to be manufactured which indicated an additional actual cost of 15% for manufacture in Queensland instead of N.S.W. Lurgi extended this percentage to the outstanding value of work to arrive at the figure of \$660 000 as being the additional cost to them. (Lurgi's calculation in fact was mathematically wrong; the correct figure should have been \$760 000). Lurgi have provided documentary evidence in support of their claim.
42. If the Federal Metal Trades Award had been used as the basis for escalation, as claimed by Lurgi, the additional payment would have been approximately \$1.2 million more than that authorised by the Superintendent. If this contract had been awarded to Flakt, the other tenderer, the Principal would have been committed to payment of the higher amount.

PROPOSED SETTLEMENT

43. After considering all the relevant factors the Superintendent has proposed that the claim for additional payments related to all work performed up to 31 December 1985 be resolved on the following basis:
- . that no payment be made for increased construction costs
  - . that with respect to reimbursables Schedule N not apply in this instance and the Contractor be paid reimbursables in accordance with Clause 4.04 of the Contract for all relevant employees
  - . that with respect to free accommodation provided by the Principal Schedule N not apply in this instance and the Contractor be provided with free accommodation in accordance with Clause C46 of the Contract for all relevant employees
  - . that the Contractor be paid an amount of \$250 000 as a contribution to the development costs of the Variopulsing System
  - . that the Contractor be paid an amount of \$600 000 as a partial offset against increased manufacturing costs.

44. The effect of these proposals will be to increase the value of the Contract by about \$1 600 000 made up as follows:

- |   |                   |
|---|-------------------|
| . payment of reimbursables to the Contractor      | \$750 000 approx. |
| . contribution to the development of Variopulsing | \$250 000         |
| . offset for increased manufacturing costs        | \$600 000         |

45. In addition the Commission will be required to meet the cost of additional free accommodation, estimated to cost about \$450 000. The total additional cost to the Commission will be about \$2 050 000 compared with the cost of the Contractor's claim of \$4 819 000.

46. These proposals have been discussed with and are acceptable to the Contractor, Lurgi (Australia) Pty. Ltd.