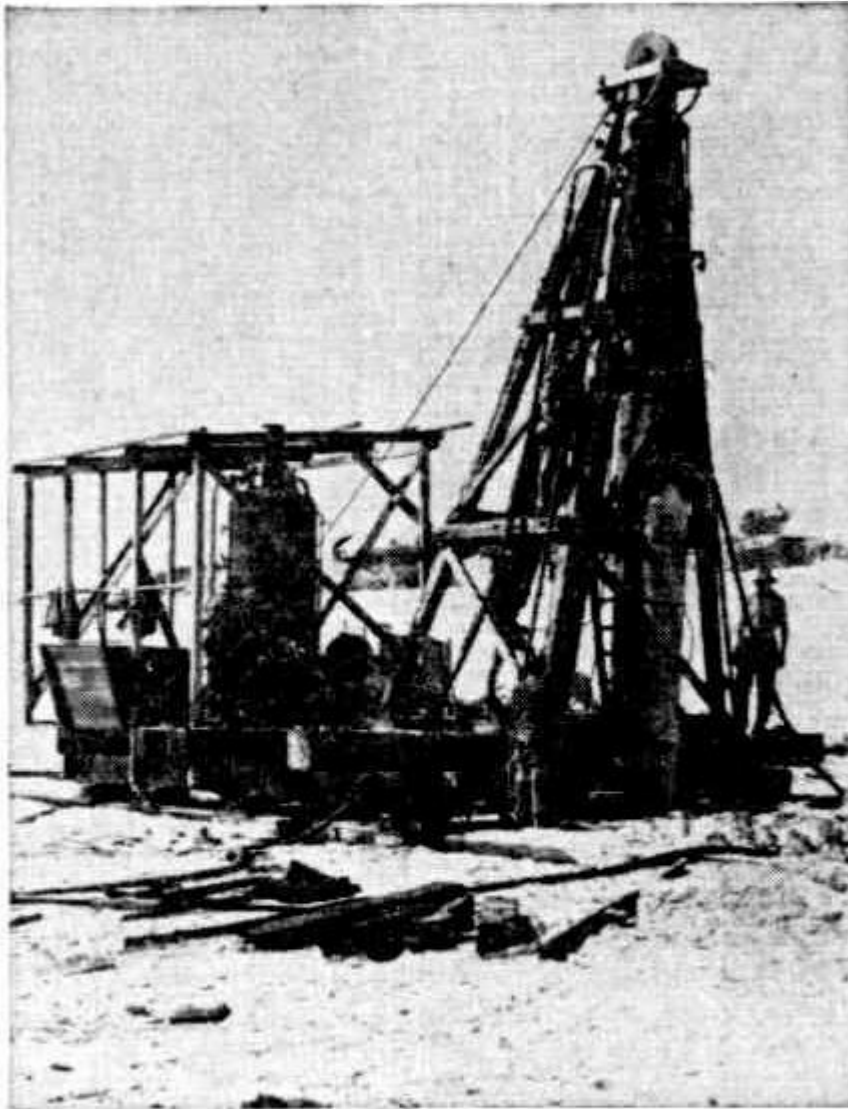


SOUTH FREMANTLE POWER STATION.



The scene recently when the general manager of the Government Electricity Supply Scheme (Mr. W. H. Taylor) drove the official first pile for the foundations of the new power station now being erected at South Fremantle. Charged with responsibility for its plans and specifications, Mr. Taylor was sent to London in 1944 by the Government in connection with the calling of tenders. On his recommendation contracts were made for the supply of the necessary plant. Mr. Taylor also drove the first pile for the East Perth power station in 1914.

POWER FOR PERTH

Collie Protest Answered

A strong protest against the construction of the new power station at South Fremantle, in preference to the South-West scheme, was made at a public meeting at Collie on April 8. The protest was submitted to the Government, together with various other resolutions passed at the meeting.

The Minister for Railways (Mr. W. Marshall) has now replied: "In respect of the South Fremantle power station this site was recommended by the Government's technical advisers after giving full consideration to all factors, including the possibility of generating current at Collie and transmitting the power to the metropolis by high tension mains.

"One of the principal reasons for the selection of this site is the necessity of having on the spot unlimited quantities of water at an even temperature for the engine circulating system."

ELECTRIC POWER.

SOUTH FREMANTLE PLANT.

Estimated Cost, £2,674,964.

The Chief Secretary (Mr. Kitson) informed Mr. Thomson (C.D.L.) in the Legislative Council last night that the estimated cost of buildings, machinery and plant for the first section of the South Fremantle power station was £2,674,964. The installed generating capacity of this section would be 500,000 kilowatts. It was estimated that circulating water totalling 17,600,000,000 gallons would be taken from the ocean.

Answering further questions by Mr. Thomson, Mr. Kitson said that the estimated cost of buildings, machinery and plant for the Collie power station to serve the South-West were not yet complete. An installed generating capacity of 12,500 kilowatts was proposed and the total water to be pumped would be approximately 500,000,000 gallons.

STATE TENDERS.

Plant for Power Station.

The West Australian Tender Board, on behalf of the State Electricity Commission has accepted the tender of Noyes Bros. (Melbourne) Ltd., to supply three 3,000 k.v.a. transformers at £2,520 each and three 1,000 k.v.a. transformers at £1,238 each for the South Fremantle power station. The tender of Atkins (W.A.) Ltd., for a drum type concrete mixer for the Public Works Department at £2,406 has also been accepted as well as the tender of Flower, Davies and Johnson Ltd., to supply the Department of Industries with a 32-42h.p. diesel locomotive for £2,195.

NEW POWER STATION

Tenders Called For More Equipment

The Minister for Electricity (Mr. Doney) said yesterday that he had been advised by the chairman of the Electricity Commission that tenders had been called, returnable in four months, for the generating equipment and extension of the building to complete No. 2 section of the South Fremantle power station. The equipment would comprise two

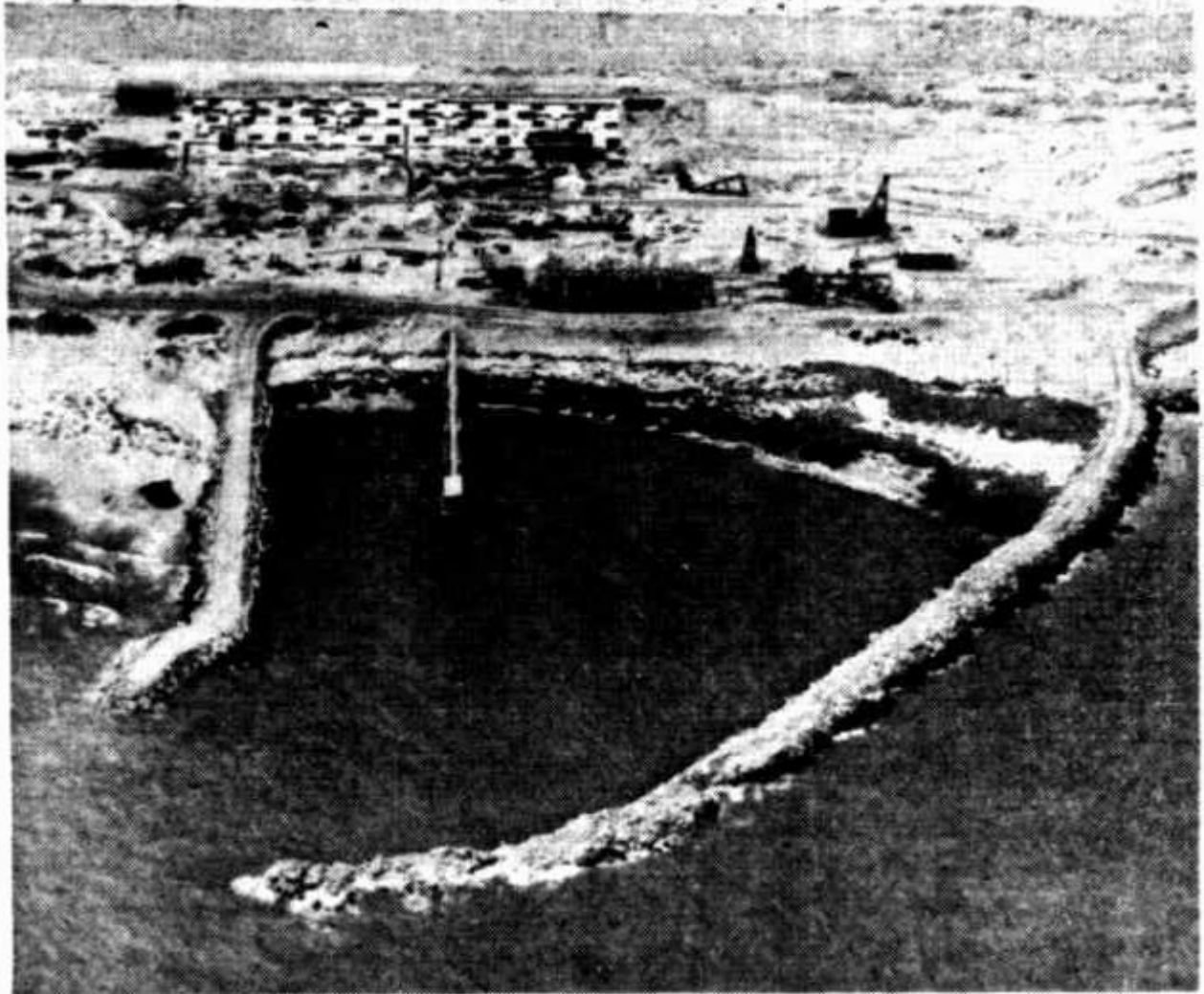
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25,000k.w. 50-cycle turbo-generators, together with the necessary boiler equipment, switch gear, etc.

Mr. Doney said the contract would duplicate No. 1 section of the South Fremantle power station, for which tenders were called in 1945. It would give a total installed capacity of 100,000k.w. at the station, as compared with the total installed capacity of 53,000k.w. at the existing East Perth power house. The rate of increase in the demand for electricity was so great that it was anticipated that after the completion of the station it would be necessary to install one additional 25,000k.w. unit every three or four years.

Mr. Doney explained that it would not be possible to make any commencement on the conversion of the metropolitan system from 40-cycle to 50-cycle frequency until the first section of the new power station, together with the frequency changer, came into operation. This would largely depend on the date of delivery of steel sections from Newcastle. Special measures were being taken to expedite the delivery of this material.

SOUTH FREMANTLE POWER STATION



This aerial view of the electric power station under construction at South Fremantle shows the extensive nature of the undertaking. In the foreground is the miniature harbour created for the drawing of cooling water to the condensers at the rate of 5,000,000 gallons an hour. Beyond are the general foundations of the plant.

2,000-TON CRANE USED

Heavy Lifts Handled At Fremantle

The 2,000-ton floating crane in Fremantle Harbour was used for the first time yesterday to remove three heavy packages of cargo from the freighter Kaipaki, at North Wharf. They consisted of items of machinery for the State Electricity Commission, and their weights were 60 tons, 31 tons and 30 tons, respectively. For the time being the machinery will remain in one of the wharf sheds at Fremantle, and later it will be sent to the East Perth power station.

The general manager of the metropolitan system of the State Electricity Commission (Mr. W. H. Taylor), who watched the unloading, said that the machinery comprised part of a frequency changer of 25,000 kilowatts for converting the 50-cycle supply from the South Fremantle power station to 40 cycles for use in the metropolitan area. This machine would enable 25,000 kilowatts of the 50,000 kilowatts which would be produced in the South Fremantle station being made available to supplement the output of the generating plant at East Perth. Later the metropolitan system would be changed to 50 cycles, and the frequency changer would then be used to convert in the reverse direction from the East Perth generating plant to feed into the 50-cycle system. Until it was used in conjunction with the South Fremantle power station, the frequency changer would not provide any additional generating capacity for the metropolitan area.

The machinery landed yesterday was made in England by Metropolitan Vickers Electrical Co. Ltd. Among those who watched its discharge from the ship was Mr. J. A. Smith, liaison engineer of Australian General Electric Pty. Ltd., representing the English company in Australia.

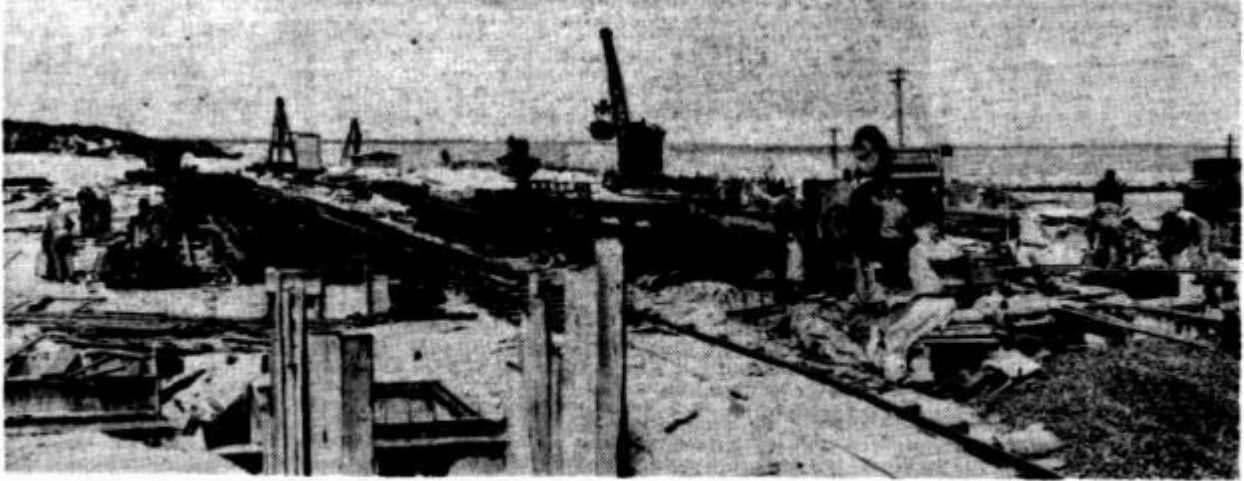
Other sections for the frequency changer are expected to reach Fremantle in the freighter Kaituna next month, and the final section is expected by the freighter Somerset in September.

CABLE SUPPLY

Order For South Fremantle Station

The West Australian Government Tender Board has accepted for the State Electricity Commission the tender of British General Electrical Co. Pty. Ltd. of £119,946 for 2kv, 6kv, 3kv and 660-volt cable and cable-dividing joint boxes and an oil pressure indicating system for the South Fremantle power station.

SITE OF SOUTH FREMANTLE POWER STATION



Site of the proposed electric power generating station by the beach at South Fremantle. Quantities of steel are now being delivered to the site for the erection of buildings. There are already two giant transformers set up on their foundations awaiting the distant day when the station is set in motion.

SOUTH FREMANTLE POWER HOUSE CONTRACTS

First Section May Operate By December Next Year

The Government had approved of duplication of the No. 1 section at the South Fremantle power station (which it was hoped to have in operation before December next year) and tenders amounting to more than £2,000,000 had been let, the Minister for Electricity (Mr. Doney) said yesterday.

This work would increase the total generating capacity of the station to 100,000 kilowatts. The second section of the station would provide for the installation of two additional 25,000 kilowatt turbo alternators and boilers.

Mr. Doney said that the following contracts, which provided for the completion of the station towards the end of 1952, had been let: Boiler house equipment, buildings etc., to International Combustion Ltd.; two 25,000 kilowatt turbo alternators, with condensing plant, to Vickers Electrical Export Co. The total cost of the contracts let, including transformers and auxiliary equipment, amounted to £2,353,678.

The total installed capacity of the East Perth power station was 53,000 kilowatts, said Mr. Doney. This comprised two units of 4,000 kilowatts each, both 31 years old; one unit of 7,500 kilowatts; one of 12,500 kilowatts about 20 years old, and one unit of 25,000 kilowatts 10 years old. All these generated at 40 cycle frequency.

The no. 1 section of the South Fremantle station, the tenders for which were let in September, 1945, would contain two 25,000 kilowatt turbo alternators with boiler units, generating at 50 cycle frequency. The structural steel for the erection of this section had now been received and a large amount of the electrical and boiler equipment was also

and boiler equipment was also at Fremantle or on the water.

Mr. Doney explained that although the last unit at the East Perth station was installed in 1938 and that it would be 11 years from that time before

the new units at South Fremantle began to function, the rate of increase in electricity consumption was so marked that in future the Electricity Commission would have to install an additional 25,000 kilowatt unit every three years.

The commission would now begin investigations to the location and size of the next power station to be constructed, said Mr. Doney.

Collie Investigation Sought

COLLIE, Feb. 9: The Premier (Mr. McLarty) has been asked by Mr. May, M.L.A., to investigate the charges that are to be made by the State Electricity Commission for power required in Collie for industrial purposes.

Information regarding the charges was sought recently by Mr. May from the Director of Industrial Development (Mr. Fernie). He replied that the only information received by the secondary industries division from the commission was that future prices for power consumed at Collie grain distillery would be 4½d. a unit for the first 120 units a month and 2½d. for all units over 120.

Mr. Fernie expressed the opinion that such high rates would

Mr. Fernie expressed the opinion that such high rates would affect the establishment of industries at Collie. If the town were to develop industrially, power would have to be made available at not more than 1d. a unit. Mr. May has passed on the information to the Premier. He pointed out that industrial expansion at Collie and in the State generally would be affected if the charges were not reduced.

SOUTH FREMANTLE POWER HOUSE

FIRST SECTION MAY OPERATE BY DECEMBER NEXT YEAR

Perth, Feb. 10.—The Government had approved of duplication of the No. 1 section at the South Fremantle power station (which it was hoped to have in operation before December next year) and tenders amounting to more than £2,000,000 had been let, the Minister for Electricity, Mr. Doney, said yesterday.

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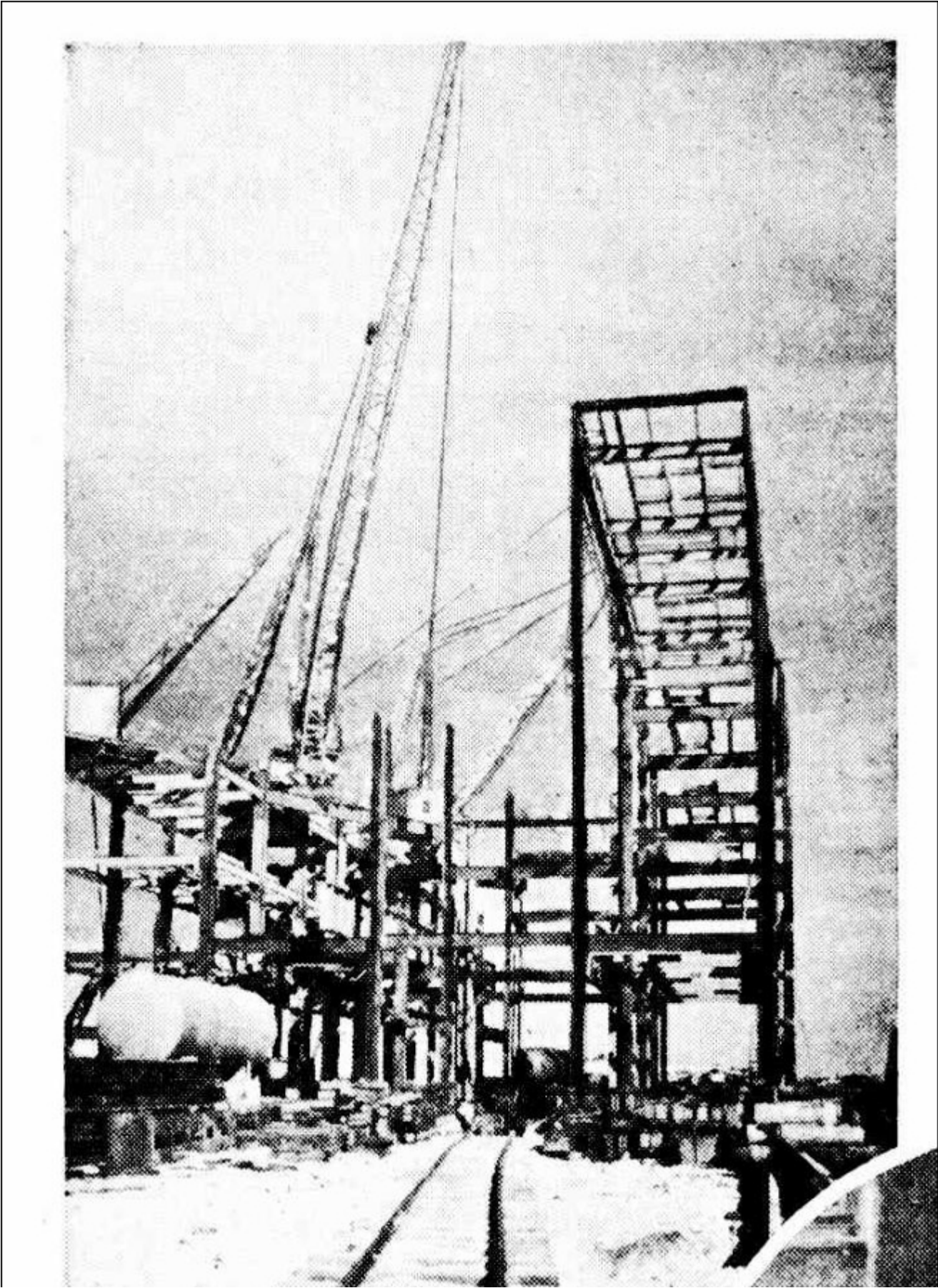
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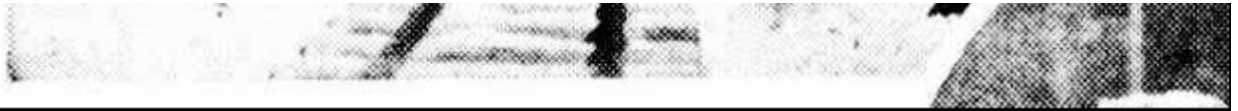
would contain two 25,000 kilowatt turbo alternators with boiler units, generating at 50 cycle frequency. The structural steel for the erection of this section had now been received and a large amount of the electrical and boiler equipment was also at Fremantle or on the water.

Mr. Doney explained that although the last unit at the East Perth station was installed in 1938 and that it would be 11 years from that time before the new units at South Fremantle began to function, the rate of increase in electricity consumption was so marked that in future the Electricity Commission would have to install an additional 25,000 kilowatt unit every three years.

Hurrying on With Power Supply

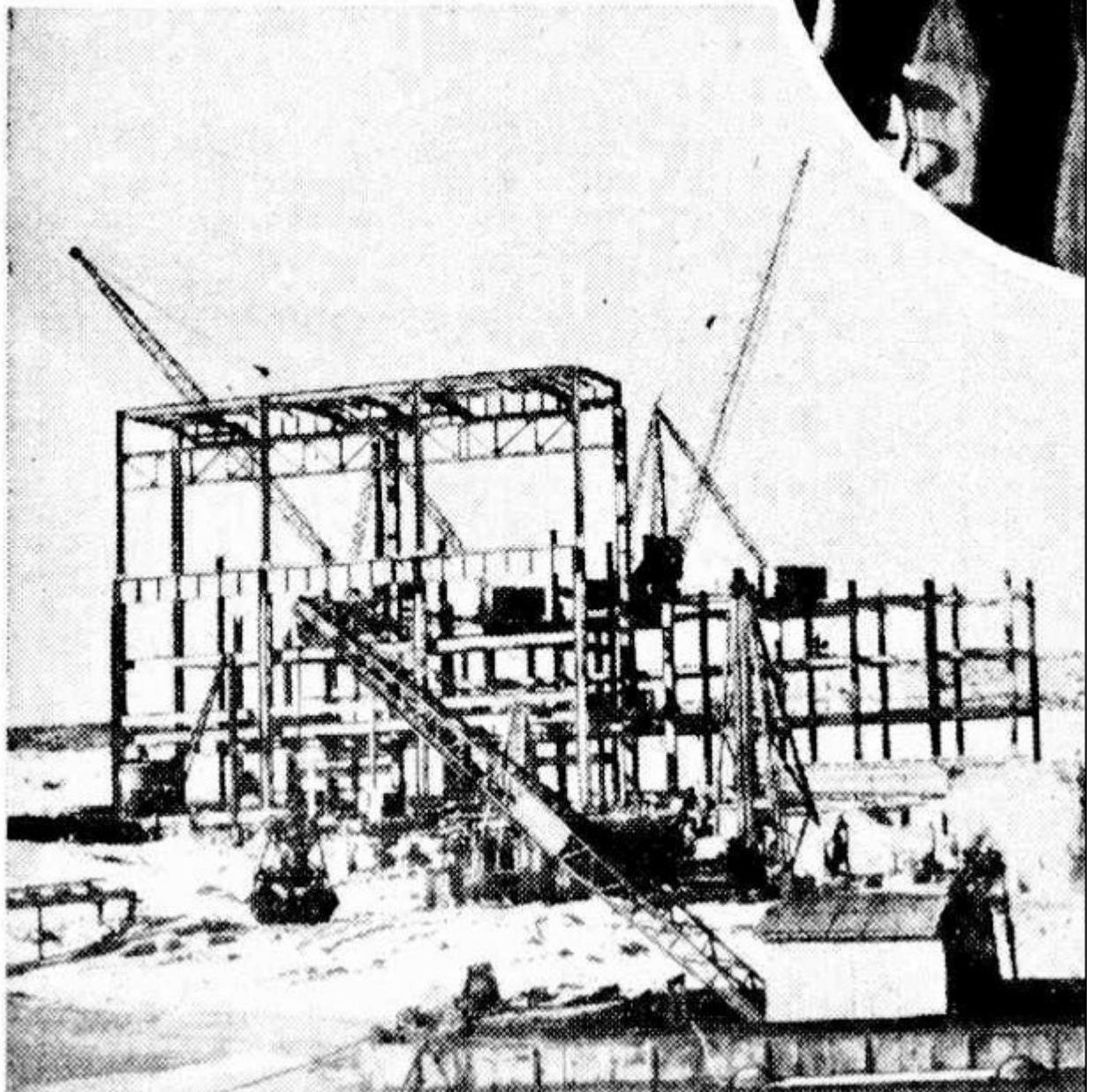
At a recent meeting of the State Cabinet authority was given for the construction of the second section of the South Fremantle power station. The amount involved is £2,354,000. Tenders for the work are in hand and will be dealt with almost immediately with the State Tender Board. An early start with actual construction is proposed. The first section of the power station is scheduled for completion by the end of next year.

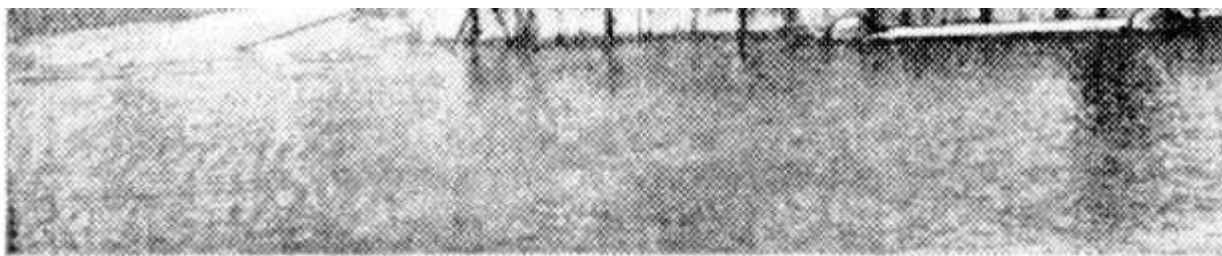




The steel frame of the future power house takes shape.

South Fremantle was chosen so that from the sea could be drawn an unlimited volume of water for cooling purposes.





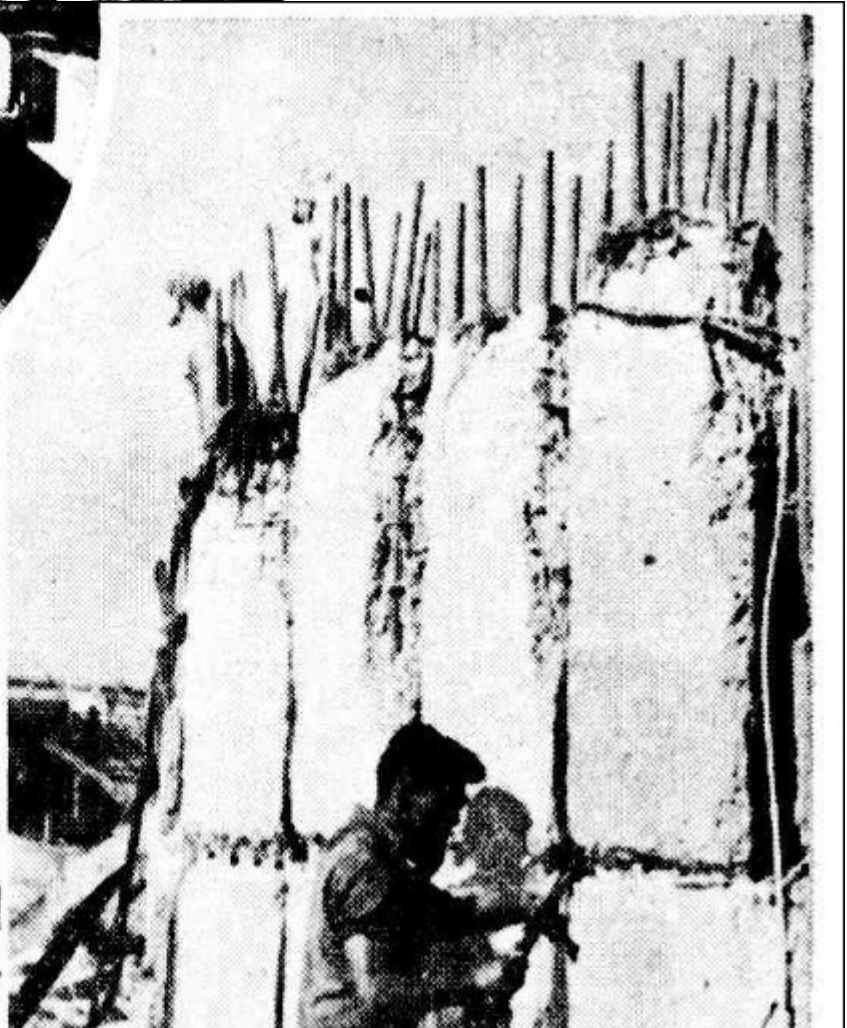
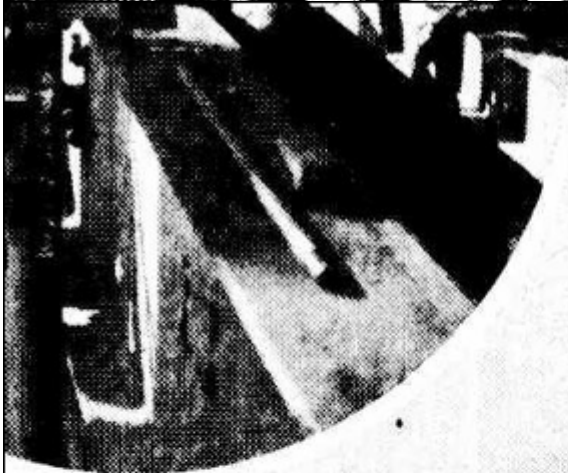
ELECTRIC POWER STATION

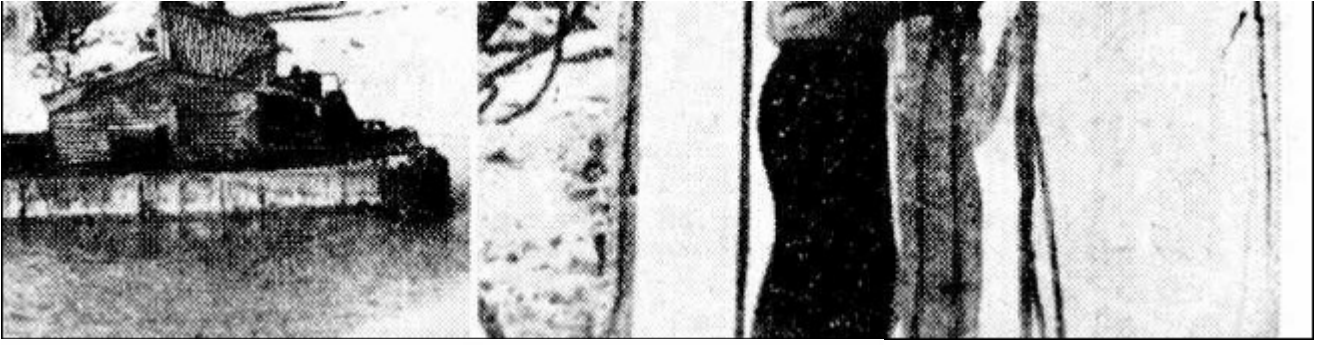
One of the major undertakings in W.A. at present is the construction of the South Fremantle Electric Power Station for the State Electricity Commission. When completed the new station will relieve the demand on the plant at East Perth. These pictures show the work in progress on the beach south of the port.





A tunnel through the girders.





Riveters at work.



Reinforced concrete piles being cut to size.

NEW METROPOLITAN POWER STATION

No Output Before The End Of Next Winter

Although there is no possibility of the South Fremantle power station coming into operation before the end of the 1949 winter, the State Electricity Commission is making every effort to have the completion of the first unit expedited. This was stated yesterday by the chairman of the commission (Mr. R. J. Dumas), who recently inspected the construction work at South Fremantle.

Mr. Dumas said that International Combustion Ltd. had the contract for the boiler equipment and Metropolitan Vickers Ltd. the contract for the generating equipment, comprising two 25,000k.w. turbo-alternators, condensers, etc. The contract held by International Combustion Ltd. included the building itself, together with all coal and ash handling equipment, etc. The Public Works Department had practically finished all the foundations for the station, and it was now completing work in connection with the condenser intake and return conduits. Structural Engineering (W.A.) Ltd., sub-contractors for the building, was making rapid progress with its task.

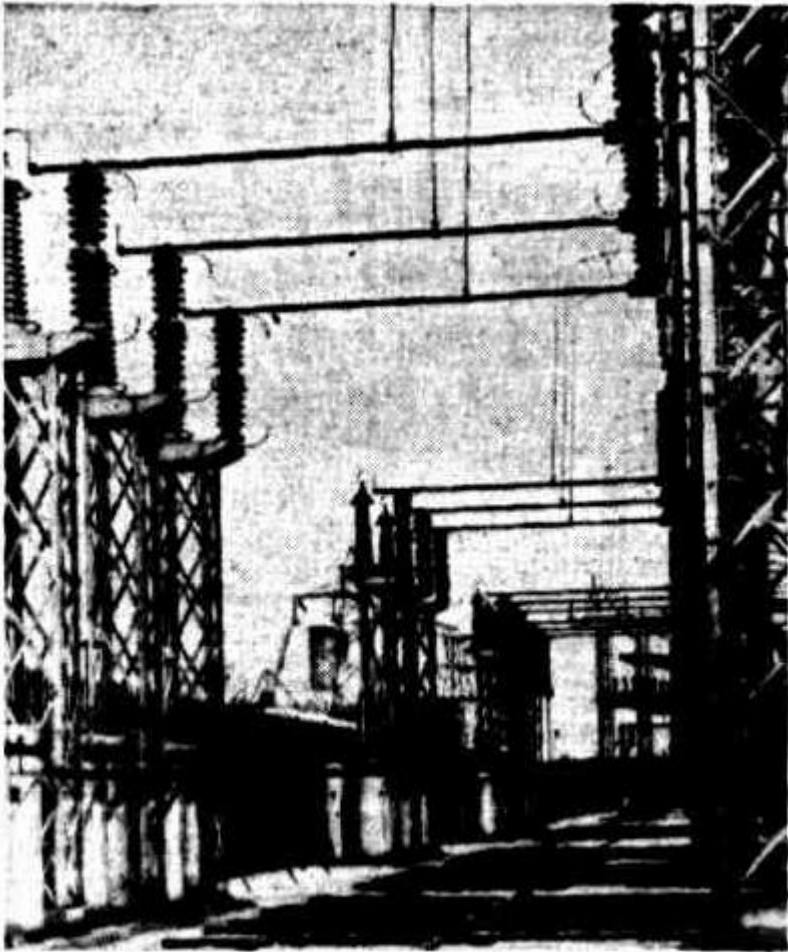
Representations had been made by the previous and the present Governments to the Prime Minister (Mr. Chifley) and the Broken Hill Pty. Ltd. and, as a result, a high priority had been given to the project. The sub-contractors had been working shifts for some time at their Welshpool shops on the fabrication of the structural steel. Supplies on hand now ensured continuity of erection at South Fremantle, where overtime was also being worked.

The commission, Mr. Dumas said, had made urgent representations to the principal contractors with a view to expediting the completion of the first unit at the earliest possible date. The company's erecting engin-

The company's erecting engineer (Mr. Jessop) would reach Fremantle on the Stratheden about two weeks hence. A special winch for lifting the boiler drums into position had left

England and would be available to Mr. Jessop shortly after his arrival. The boiler drums were on the site, and it was anticipated that the erection of the building would have sufficiently advanced to enable a commencement to be made shortly on the assembly of the boiler units for the No. 1 generating set.

A considerable proportion of the boiler parts were either on the site, or completed and awaiting shipment. The generating equipment was in an even more favourable position and good progress was being made with the condensers, which were being manufactured by sub-contractors in New South Wales. It was anticipated that the frequency changer house, which was being erected at East Perth by a local contractor, would be completed before the No. 1 unit at South Fremantle was ready.



TERMINALS: Power terminals similar to these will be provided where the 66,000-volt underground cables from the South Fremantle power station enter the switchyard at the East Perth generating station. Note the 5ft. high insulators.

NEW POWER PLANT

For the State Electricity Commission, the W.A. Government Tender Board has accepted the tender of W. Fairweather and Son for the supply, delivery and erection of switch house and control room building for the South Fremantle power station at a cost of £56,275. The board has also accepted the tender of Alex Cowan and Son Ltd. for a Waite and Saville rotary offset press for the Government Printer at a cost of £7,683.

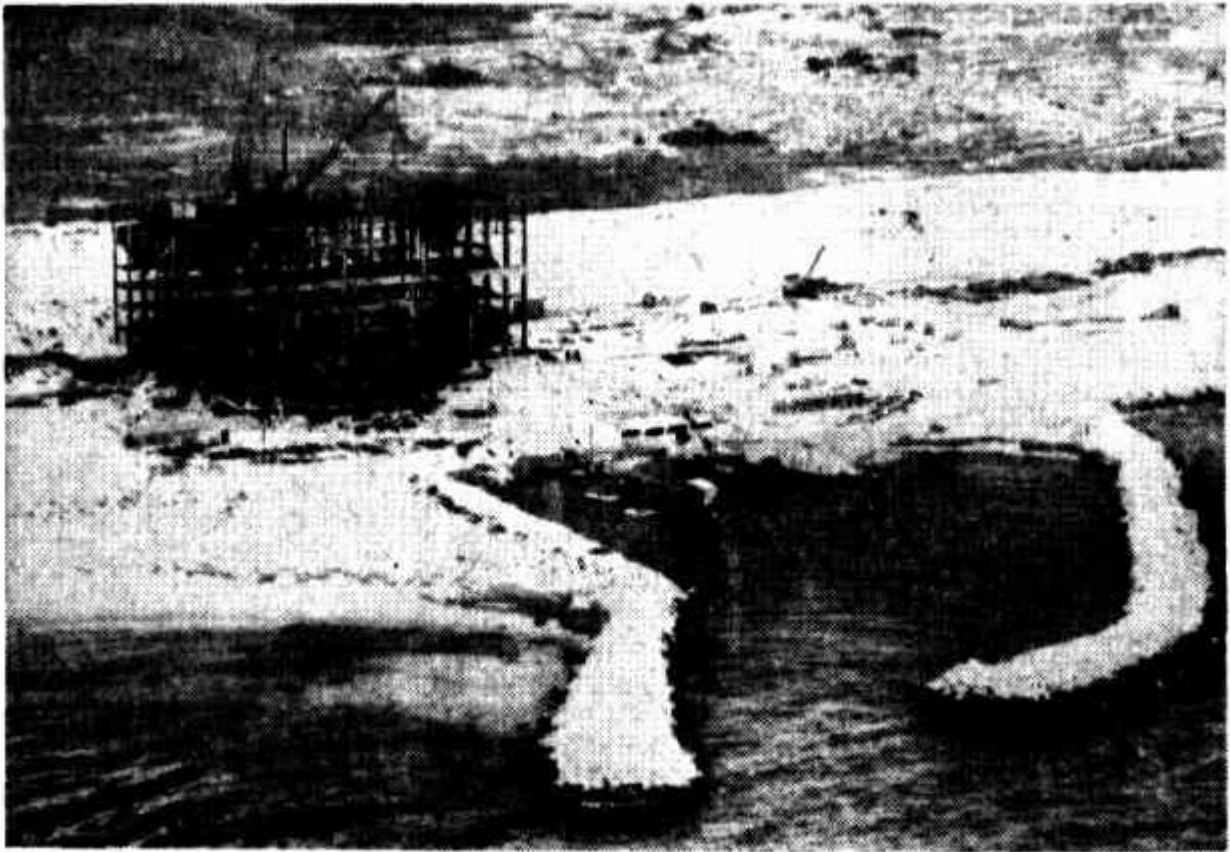
NEW POWER STATION

Progress Of Work Satisfactory

Further satisfactory progress in the erection of the South Fremantle power station was reported yesterday by the Minister for Works (Mr. Doney). He said that the steel framework of the building was well advanced and the foundations for the boiler drums had been completed. The winch for lifting the drums into position had arrived at Fremantle and would be installed within a few days.

Equipment continued to arrive from the British contractors. It was anticipated that the actual assembly of the boilers and alternators would begin shortly. A contract had been let recently for duplicating a section of the station and work on the site and foundations for this extension was proceeding.

Progress was also being made with the preliminary work associated with the South-West power scheme. A contract had been signed for the clearing of a transmission line from Collie to Picton Junction and a transmission line, with the exception of insulators, which were hard to obtain, had been completed from Picton Junction to Boyanup. Poles for the former main would be erected as soon as clearing was sufficiently advanced. Another contract let was for extensions to the power house, including the supply and installation of additional generating units.



SOUTH FREMANTLE POWER STATION: An aerial photograph of the new power station in the course of construction at South Fremantle. Inside the groynes in the foreground is the pump well from which 5,000,000 gallons of water an hour will be drawn for the condensers of the turbine alternators when the completed station is in operation.

WORK ON POWER STATION

Special measures were being taken to overcome the shortage of tradesmen such as bricklayers, carpenters and fitters, which was retarding the progress of the erection of the South Fremantle power station. the Minister for Works (Mr. Doney) told Mr. Marshall (Lab., Murchison) in the Legislative Assembly yesterday.

Replying to Mr. Thomson (C.D.L.) in the Legislative Council yesterday, the Chief Secretary (Mr. Parker) said that the State had so far paid £54,563 customs duty on machinery imported for the South Fremantle power station.

NEW POWER HOUSE READY 'LONG BEFORE 1953'

An assurance that construction of the new South Fremantle power station was being pushed ahead as fast as possible was given by acting Electricity Minister Seward today.

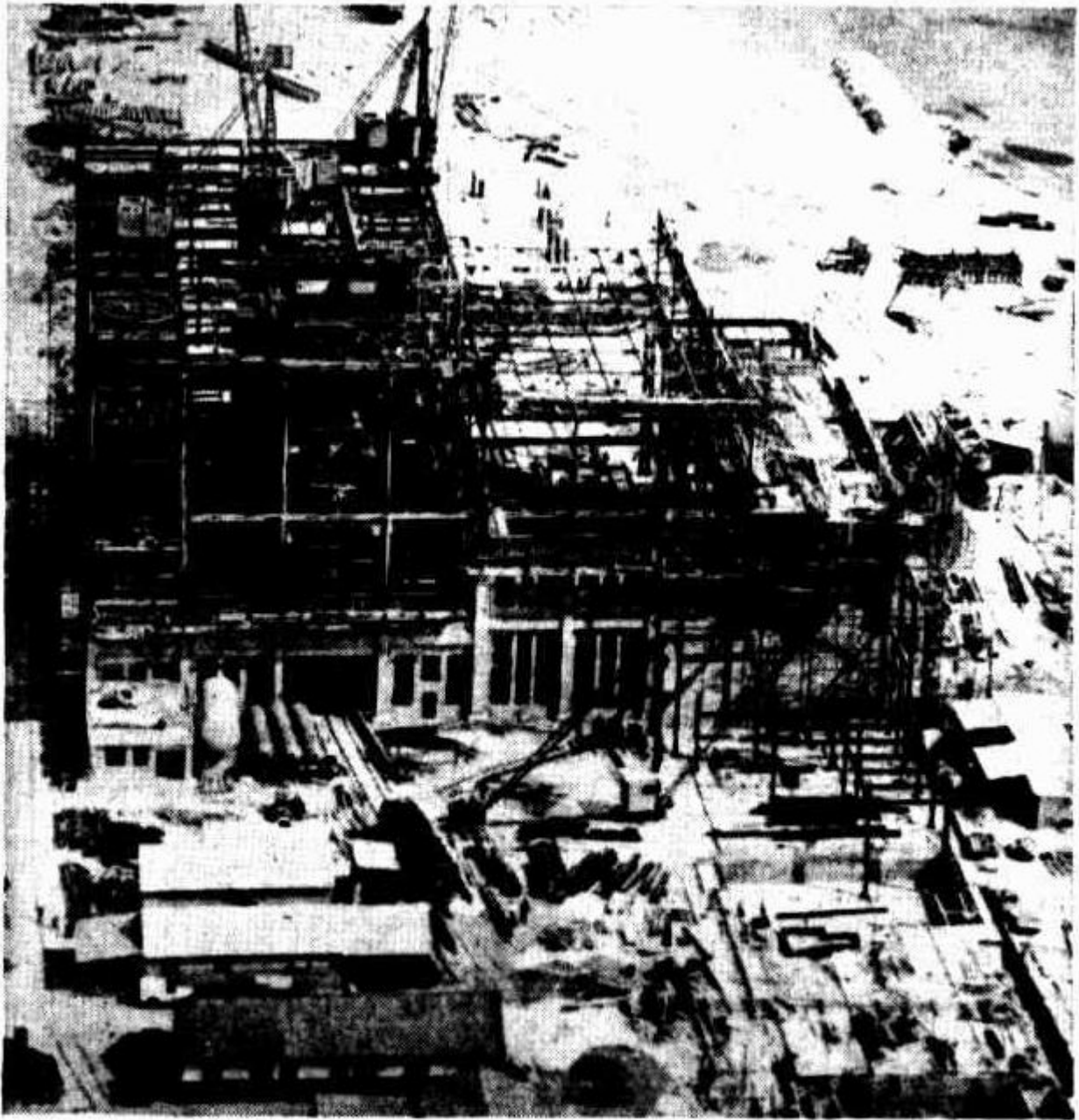
There was no ground for the rumour that the first section would not be finished until 1953, he said.

On the contrary, it could be expected that without unforeseen holdups it would be in operation long before that.

Referring to the East Perth power break, Mr. Seward said that repair work on the 25,000 kilowatt machine was proceeding satisfactorily.

• *Tenders for the first section of the South Fremantle power station with two 25,000 kilowatt machines, were let in September, 1945. In February, 1948, Electricity Minister Doney said the Government had approved of the duplication of the first section to give the new station a total generating capacity of 100,000 kilowatts.*

The first section was to have been in operation this year but last year Works Director Dumas said there was no possibility of using the station before the end of winter.



PROGRESS OF NEW POWER STATION: An aerial photograph taken during the weekend showing the stage reached in construction of the A-station of the South Fremantle power station.

ENGINEERS INSPECT NEW POWER STATION

The eight boilers in the South Fremantle power station will be fired with pulverised Collie coal with provision for maximum evaporation under oil firing. delegates to the Australian engineering conference were told when they visited the partly-constructed station yesterday.

"A" station, with four boilers and two 25,000-kilowatt turbo-alternators, is expected to be in operation next year. Piles have already been driven for the foundation of "B" station, which will house similar equipment. The ultimate capacity of the station will be 100,000 kilowatts, or four times the capacity of the big generator operating at the East Perth power station.

The chairman of the State Electricity Commission (Mr. R. J. Dumas) welcomed delegates to the construction job yesterday. The South Fremantle site was selected, he said, principally because of suitable rail access and unlimited supplies of water. The station could be divided into four separate sections on the steam and electrical sides. Although each could function independently, all were capable of inter-connection.

There was provision for the storage of 20,000 tons of coal. The main transmission lines to Perth would be 66,000 volts and for this purpose outdoor switch and transformer yards were being erected at East Perth and South Fremantle. The first duplicate transmission line would terminate at the Perth end of the line in two miles of underground oil-filled cable.

The canteen, which is already completed and which now serves the construction workers, will later be used by the station staff. With a pleasant outlook, it is well equipped and has electric ranges.



POWER STATION: Some of the 250 visiting and local engineers who inspected the South Fremantle power station yesterday.

Cabinet To See Power Project

The South Fremantle power station now being built will be inspected by Premier McLarty and Cabinet Ministers on Monday.

Cabinet was to have made its inspection on March 9 but its visit was delayed because of the break in power supplies from East Perth power station.

● *The station is being built in two sections to give an ultimate output of 100,000 kilowatts. Earlier this year it was stated that a section, with two 25,000 kilowatt turbo-generators, would be ready for use next winter, possibly by the end of this year.*

New Power House May Be Ready Early 1950

No exact date could be given for the opening of the South Fremantle Power Station but it might be in operation early next year, Electricity Minister V. Doney said today.

The power station is being built in two sections, to give a total generation of 100,000 kilowatts.

When Mr. Doney and other members of the State Cabinet were taken on an informal tour of the power house today they were told that A section steel framing was ready for concrete and foundations for B section were in an advanced state of preparation.

The cement walls of the turbine house in A section are up and the windows are going in. State Electricity Commission general manager F. C. Edmondson said that the turbine blocks held 1000 tons of cement and steel.

Foundations for the cooling system, where 5,000,000 gallons of sea water will be pumped, was explained. The party also saw other advanced work in connection with the boilers and eight coal hoppers in A section.

The Ministers, who included Housing Minister McDonald, Transport Minister Seward, Lands Minister Thorn, Mines Minister Parker and Agriculture Minister Wood as well as Mr. Doney, were entertained at morning tea.

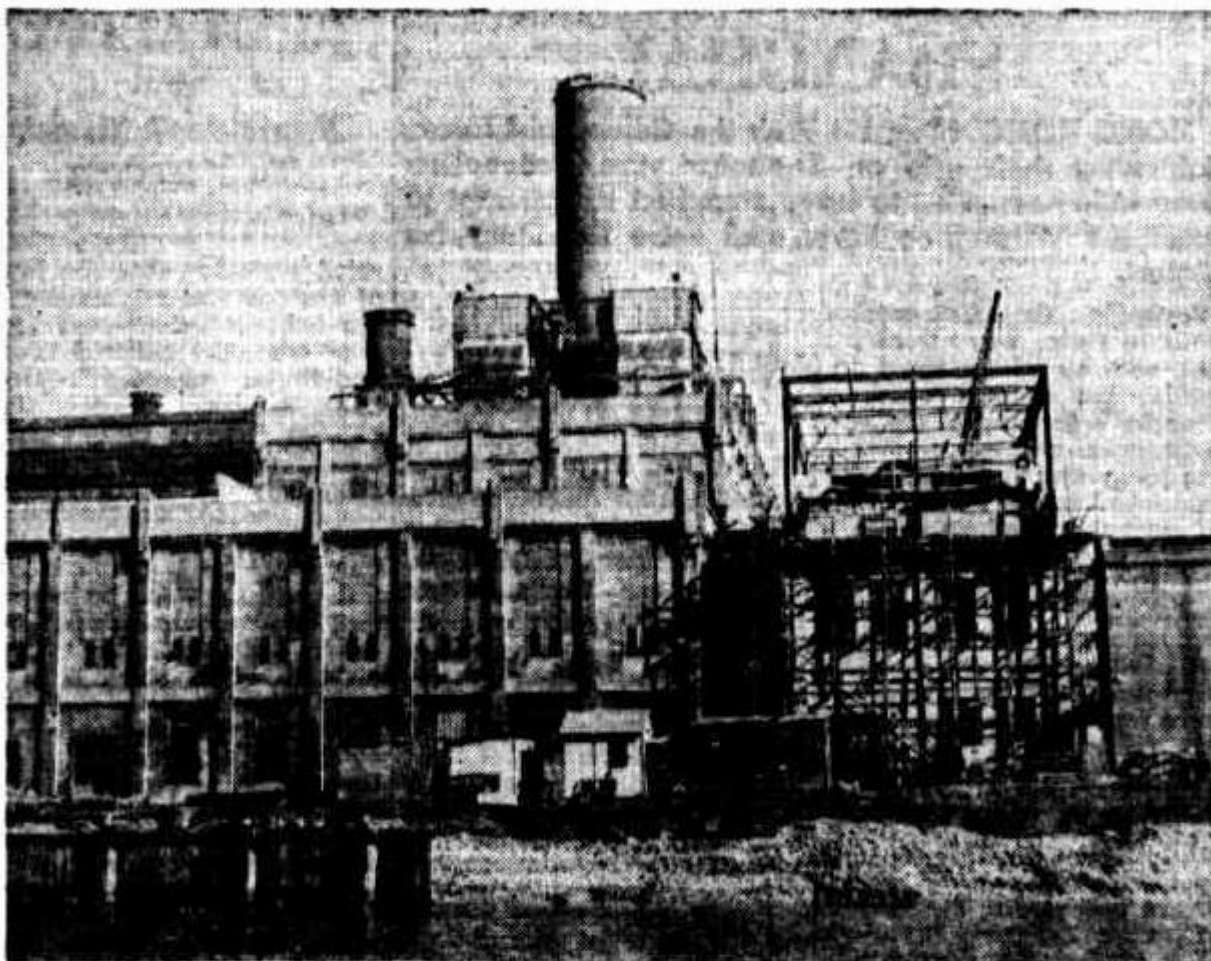
Power Point

Works Minister Doney takes time out in a Cabinet inspection of the new South Fremantle power house today to discuss a technical point with a workman on the job—Les Collins—who is pictured with boiler tubes.

Story: Page 7, Col. 1.

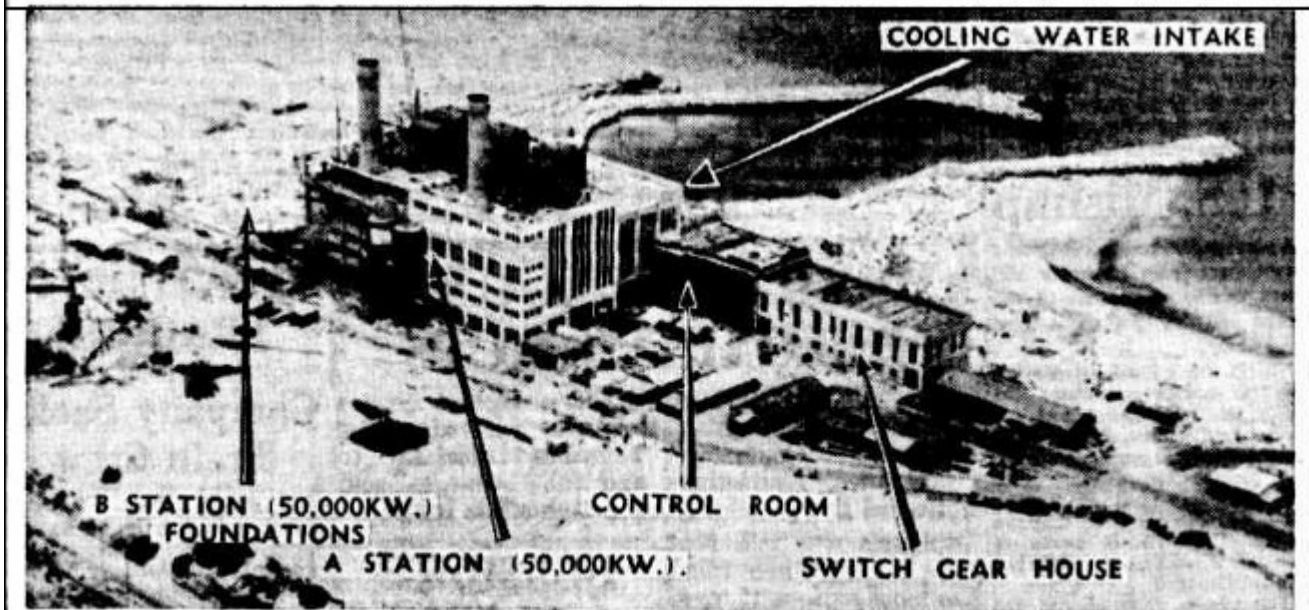






FREQUENCY CHANGER: So that the first generating unit at the South Fremantle power station will be able to supply power to the metropolitan area as soon as it is installed, a frequency changer is to be installed at the East Perth power house. South Fremantle will operate on 50 cycles but the frequency will be changed to 40 cycles by the East Perth machine. It is proposed that later the frequency will be 50 cycles throughout the metropolitan area and the frequency changer will then convert the East Perth output to the required frequency. Shown above is the building being erected at East Perth to house the frequency changer.

SAFEGUARD AGAINST FUTURE BLACKOUTS



An aerial view of the South Fremantle power station, the construction of which is progressing rapidly. The final size of the building can be visualised with the addition, on the left, of "B" station of the same size as the existing "A" station.