

B. OPERATION AND MAINTENANCE

1. POWER-STATIONS

Cobb.—The peak load carried by the Cobb generators was 9,690 kW. at 17.30 hours on Thursday, 26th June, 1947, the annual load factor for the station being 54 per cent.

The annual rainfall was 91.21 in., compared with 73.005 in. for 1946-47.

A stone-trap was fitted to the pipeline in December, and during the station shutdown the opportunity was taken to inspect the tunnel and to overhaul and check the station switchgear and transformers.

The spears, nozzles, and turbine buckets have showed signs of the punishment received from gravel passing through them, and the C.B. valves have also required attention.

The following table shows the running-times of the various machines.

Generator.	Time on Load.		Time Idle.		Time under Repair.		Percentage Availability for Service.
	Hours.	Percentage.	Hours.	Percentage.	Not in Demand (Hours).	In Demand (Hours).	
1 ..	5,580	63.5	3,136	35.7	47	21	99.2
2 ..	5,147	58.5	3,090	35.2	521	26	93.7
3 ..	5,753	65.5	2,885	33.0	122	24	98.4
4 ..	5,710	65.0	3,006	34.2	46	22	99.2

Stoke Diesel Stations.—Running as required for standby purposes, the station generated 775,560 units, 17 per cent. more than last year. The machines are badly in need of overhaul, which is still held up pending the arrival of further necessary parts. Machine-running times were : No. 1 machine, 1,285 hours (215,790 units) ; No. 2 machine, 1,273 hours (523,770 units).

2. SUBSTATIONS

All apparatus operated satisfactorily.

3. TRANSMISSION AND DISTRIBUTION

(a) 66 kV.—One failure was due to flashover of a string of insulators near Upper Takaka, and another to the burning of a pole in the Stoke-Blenheim 66 kV. line. The most serious trouble occurred on 7th August, when, during a storm, a tree broke the 66 kV. line, wrecking a double-pole concrete structure and damaging others, near Riwaka.

(b) 11 kV.—Faults were mostly of a minor nature except that from 28th March for over thirty-six hours the power-house - dam line was out as the result of storm and flood damage.

4. COMMUNICATIONS

There was a number of telephone faults, mostly due to storm damage. On 26th December a severe storm put both the Department's and the Post and Telegraph circuits out.

5. TESTING

Much work was occasioned in connection with the new transformer installations at various substations.

6. PLANT AND MOTOR-VEHICLES

The arrival of one new sedan car did little to alleviate the transport position, and the difficulty of carrying on satisfactorily is increasing. Six new Cletrac tractors, with various equipment, arrived.

C. CONSTRUCTION

1. POWER-STATION

The most important work was the building at Cobb of the temporary earth dam by the Public Works Department. The social hall building was completed. Plans for a dam at Lake Sylvester have been prepared, and the formation of a tractor-track to the lake is well under way.