B. OPERATION AND MAINTENANCE

1. Power-stations

Coleridge.—Owing to favourable rainfalls the lake-level fell to 1,663·96 ft. only by the 24th September, this being a decided improvement on the previous year. Overflow level, 1,673·5 ft., reached by 12th December, was maintained until after 31st March, 1949.

A new record maximum half-hourly demand of 42,440 kW. was recorded at 1200 hours on 7th March, 1949. This peak was an overload of 23 per cent. on the station rated capacity of 34,500 kW.

Heavy expenditure was incurred on maintenance at the Harper intake, the work including fairly extensive repairs to the main diversion groyne and renewal of apron nets along east side of the long groyne. Willows were planted along the banks of the lake outlet channel.

The new bridge built by the Ministry of Works over the Ryton River was opened for traffic in June.

Machine-running Times

Generator No.	Time on Load.		Time Idle.		Time Under Repair.		Percentage Availability for Service.
	Hours.	Percentage.	Hours.	Percentage.	Not in Demand (Hours).	In Demand (Hours).	
1	5,723	65·3	2,996	34·2	41	..	99·5
2	5,285	60·3	2,604	29·7	871	..	90·0
3	4,995	57·0	2,756	31·5	1,009	..	88·5
4	1,895	21·6	6,647	75·9	218	..	97·5
5	1,743	19·9	5,878	67·1	1,139	..	87·0
6	1,468	16·8	5,348	61·0	1,944	..	77·8
7	1,786	20·4	6,650	75·9	324	..	96·3
8	3,242	37·0	5,491	62·7	27	..	99·7
9	3,465	39·6	5,163	58·9	132	..	98·5

Waitaki.—The average river flow during the year was 12,800 cusecs, compared with 9,625 cusecs during the previous year. The highest river flow since the station commenced operating was recorded on 3rd November, 1948, when, with 6 ft. of water going over the crest of the dam, the computed total river flow at the peak of the flood was 75,500 cusecs. A second high flood occurred in February, when a peak flow of 43,000 cusecs was recorded on the 24th. The lowest weekly average flow was 4,479 cusecs during the week ended 19th September.

Machine-running Times

Generator No.	Time on Load.		Time Idle.		Time under Repair.		Percentage Availability for Service.
	Hours.	Percentage.	Hours.	Percentage.	Not in Demand (Hours).	In Demand (Hours).	
1	7,570	86·4	1,172	13·4	18	..	99·8
2	7,362	84·0	1,395	15·9	3	..	99·9
3	5,749	65·6	3,008	34·3	3	..	99·9
4	5,520	63·0	3,210	36·6	30	..	99·6
5*	227	89·7	26	10·3	..	..	100·0

* No. 5 unit became available for routine full-load running on 21st March, 1949.