

## AMATEUR OPERATOR'S CERTIFICATE.

43. Amateur operators' certificates issued in pursuance of the Radio-telegraph Regulations for Amateur, Experimental, and Broadcasting Stations published in the *New Zealand Gazette* on the 18th January, 1923, shall remain in force and shall be deemed to be identical with any amateur operators' certificates issued in pursuance of these regulations.

44. (1.) An amateur operator's certificate may be granted by the Minister to persons who are deemed to have fulfilled the requirements of this regulation.

(2.) An application for examination shall be made on the form provided for the purpose, addressed to the District Radio Inspector, and, in addition to any information the Minister may require, the following particulars shall be given:—

(a.) Full name and address of the applicant :

(b.) Evidence of nationality :

(c.) Date and place of birth.

(3.) To qualify for an amateur operator's certificate the applicant shall satisfy the District Radio Inspector that he possesses—

(a.) Proficiency in Morse operating, both sending and receiving at the rate of ten (10) words per minute, five (5) letters comprising a word :

(b.) An adequate knowledge of the principles underlying radio communication and of the adjustment and operation of the radio apparatus proposed to be used in a specific amateur transmitting and receiving, experimental, or broadcasting station :

(c.) An adequate knowledge of the laws and regulations relating to the operation of radio stations, and particularly of these regulations.

45. The fee payable in respect of each examination for an amateur operator's certificate shall be 5s.

46. The fee payable in respect of a duplicate of an amateur operator's certificate shall be 2s. 6d.

## TEMPORARY PERMITS FOR DEMONSTRATIONS.

47. (1.) In cases in which temporary authority is sought for demonstrations of radio-telegraphy in connection with lectures, scientific proceedings, or the like, the Minister may, at his discretion, grant the necessary permission. Every care shall be taken by the permittee to safeguard the secrecy of public correspondence, and only in special cases shall permission be given to operate transmitting-apparatus connected to an antenna or earth.

(2.) Applications for temporary permits under this regulation shall be made to the District Radio Inspector in writing.

## TECHNICAL REQUIREMENTS.

48. For the purpose of these regulations the various types of emissions are classified as under:—

Type A1—continuous waves, key modulated: meaning continuous waves of which the amplitude or frequency is varied by the operation of keying, as in telegraph transmission.

Type A2—continuous waves, modulated at audio frequency: meaning continuous waves in which the amplitude or frequency is varied in a periodic manner at an audible frequency, and commonly referred to as I.C.W.

Type A3—continuous waves, modulated by speech: meaning continuous waves in which the amplitude or frequency is varied according to the characteristic vibrations of speech.

Type B—damped waves: this includes waves from spark transmitters or other types of transmitters having a characteristic decrement similar to spark transmitters.

49. The use of waves of type A2 and type B is prohibited except for research work on approved lines and subject to special written consent.

50. All transmitters shall be of the inductively coupled type—*i.e.*, the oscillatory power circuit shall not be directly connected to the antenna circuit.

51. The high-tension-plate supply voltage shall be such that its waveform is practically a straight line—*i.e.*, equivalent to a constant voltage. If the plate current be obtained from an alternating-current source it shall be smoothed out by rectifying and filtering before being applied to the plate of the transmitting-valve; if obtained from a generator the current must likewise be smoothed and filtered to minimize commutator ripple.

52. Adjusting, calibrating, and tuning of radio transmitters shall be done at such times as will cause the minimum of interference with other radio stations.