



Broadcast Engineering Bulletin

MAY 28, 1943

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No. 2

1760 N St., N.W. NATIONAL ASSOCIATION OF BROADCASTERS WASH., D.C.

RMA TRANSMITTING TUBE CONSERVATION RECOMMENDATIONS

Percentages of rated normal filament voltages to be used under various operating and stand-by conditions to give maximum filament life.

Tube Type by Kind of Filament or Cathode	Operating Conditions		Recommended Stand-by Conditions (% of Normal Operating Voltage)				Typical Tube Types
	Normal Load Operation	Light Load; May In- crease Life	Under 15 Minutes	15 Min. to 2 Hours	2 to 12 Hours	Over 12 Hours	
1. Pure Tungsten filament..... (small and medium types)	100*	Reduce	80	80	off	off	207, 891R
2. Pure Tungsten filament..... (large types)	100*	Reduce	80	80	80	off	895, 899A, 898
3. Thoriated Tungsten filament..... (small and medium types)	100	95-100	80	off	off	off	211, 803, 851
4. Thoriated-Tungsten filament..... (large types)	100	95-100	80	80	off	off	827R, 861
5. Oxide-coated filament..... (small and medium-gas, vapor)	100	100	100	100	off	off	866A, 872A
6. Oxide-coated filaments or cathodes... (large-gas, vapor)	100	100	100	100	100	off	857B, 870A
7. Oxide-coated cathodes..... (high vacuum)	100	95-100	100	off	off	off	807, 837
8. Oxide-coated filaments..... (high vacuum, quick heating)	100	95-100	80	off	off	off	1616, 1619, 1624

* Normal load operation may be less than 100% as recommended in instructions.

NOTE: Recently the NAB Engineering Department asked vacuum tube manufacturers to submit recommendations covering the stand-by operating conditions that would assure the maximum life from transmitting tubes. It was found that differences of opinion existed among the manufacturers and that the problem was further complicated by the variety of tube types to be considered. The manufacturers coordinating through the RMA Transmitting Tube Committee have now released the above standard recommendations.

TUBES REPAIRED WITHOUT PREFERENCE RATING

The radio and radar division of WPB has just released the following interpretation of preference rating order P-133 and general limitation order L-265, insofar as the orders apply to the repairing of vacuum tubes:

"From time to time the question has arisen as to the restrictions of preference rating order P-133 with regard to the repair of vacuum tubes. The limitations and restrictions of P-133 apply only to the extension of ratings under that order.

"Order P-133 prohibits an operator from applying a rating to obtain a new tube as long as he has one spare tube for each active tube socket. However, there is no limitation on the number of tubes which may be repaired, or the number of repaired tubes which may be held as spares. It is permissible to repair any tube without the extension of a preference rating. It is also to be noted that if a burned-out tube is to be repaired, it is not necessary, under P-133, to return the old tube to the manufacturer in order to obtain a new tube.

"General limitation order L-265 specifically exempts from its provisions the transfer of electronic equipment

for repair, as well as exempting any operations involved in the repair of a specific piece of electronic equipment. Thus, any number of tubes can be repaired without the extension of a preference rating. However, a preference rating under P-133 cannot be extended for the purchase of a new tube unless an operator has in his inventory less than one spare tube per socket."

NEW PREFERENCE RATING IS "AA-2"

Radio broadcasting now has AA-2 rating instead of AA-2X rating assigned last February 14, under P-133.

All other terms of P-133 still apply with one possible exception. This concerns the quantity of material you are now using for maintenance, repair and operating supplies. Quantity cannot be more than that used in 1942. This is covered in paragraph (f) of CMP Reg. 5 (page 238, NAB Reports).

In buying materials your new AA-2 preference rating is applied by use of the following certification appearing on order and properly signed:

"Preference rating AA-2—MRO. The undersigned certifies, subject to the criminal penalties

for misrepresentation contained in section 35(A) of the United States Criminal Code, that the items covered by this order are required for essential maintenance, repair or operating supplies; that this order is rated and placed in compliance with CMP Regulation No. 5; and that the delivery requested will not result in a violation of the quantity restrictions contained in paragraph (f) of said regulation."

Use form PD-1A for material not obtainable with AA-2. No change in this procedure.

The above is an interpretation of the new regulations obtained from WPB.

NEED TECHNICIANS?

The NAB engineering department has now been recruiting technicians, not presently employed in the broadcast industry, for several months. Several methods of recruiting both men and women for replacement technical posi-

tions are now being used. Currently, we are receiving more applications for positions than requests for assistance from broadcast stations.

It is important that these applicants be placed as soon as possible after registering with NAB or they will find employment elsewhere and be lost to the broadcast industry. In order to expedite the placing of these candidates, a few applicants are being selected from the NAB files to be placed on regional availability lists. These lists will be mailed with the current issue of the *Swap Bulletin* addressed to chief engineers.

Stations in need of replacement technicians should first make every effort to fill vacancies locally. If it is found impossible to obtain the required replacements, stations are invited to write to the NAB Engineering Department for the names of several available persons. NAB has no knowledge of the applicants other than the statements contained in the registration letter and is therefore not in a position to make employment recommendations. The usual employment references should be obtained by direct correspondence with the applicants.