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12 August 2008

Federal Communications Commission
Office of Engineering and Technology Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046-1609

In regard to questions posed for Equipment Certification Application:

FCC ID: HFLNV8600FLO
Form 731 Confirmation Number: EA685587
Correspondence Reference Number: 35901 (dated 29 July 2008)

Each question is listed below in bold italics with the response following.

“1) Cover letter says 470-860 MHz, however form-731 has 686-806 MHz - please revise all relevant parts of filing for consistency where appropriate (see also KDB 634817).”

The cover letter (actually the Form 721 Filing Overview for NV8600) listed the absolute operating frequency range of the transmitter equipment, exclusive of the fixed-tuned channel filter, and not the frequency range requested for this Certification filing. That has been changed and the revised document submitted as part of this response.

It should be noted that references to the broader frequency range of 470-mHz to 860-mHz remain in the General Specifications exhibit and in the included manuals as it remains appropriate as referenced in those documents.

“2) Form-731 has part 27 for 686-698 MHz, however 2.106 does not show part 27 for this band - per KDB 634817, please revise all relevant parts of filing where appropriate.”

There appears to be no method to revise Form 731 after it is submitted. If there is a method please advise as to how to make changes. Otherwise if you could please revise Form 731 to show the requested frequency range for Certification for operation under Part 27 of the Rules to be from 698-mHz to 746-MHz we would be grateful.

“3) Form-731 has part 27 for 763-775 MHz, however 2.106 does not show part 27 for this band - per KDB 634817, please revise all relevant parts of filing where appropriate.”

Corrective action for items 1 and 2 above will resolve this discrepancy.

“4) Form-731 has part 27 for 793-805 MHz, however 2.106 does not show part 27 for this band - per KDB 634817, please revise all relevant parts of filing where appropriate.”

Corrective action for items 1 and 2 above will resolve this discrepancy.

“5) FYI form-731 has seven different line-entry power levels (1400-6400 W), which appear to be achieved by populating from one to ten amplifier "modules" (e.g. see test report "page 10 / 36" block diagram & "page 14 / 36" system spec).”

Yes, this is correct. The various models of the NV8600 series differ only in the number of power amplifiers used to achieve the final output power. The final amplifiers are identical in design and their outputs are passively combined. The output combiners differ only in the number of ports on its input side. The following table shows each model, the number of power amplifiers used and the output power in each model. More complete information for each model may be found in the *NV8600 Transmitter Family General Specifications* document submitted with the Application.

Transmitter Model	VH8600A1 Final Power Amplifier Count	Transmitter Output Power	Transmitter Model	VH8600A1 Final Power Amplifier Count	Transmitter Output Power
NV8602E/V	2 final amps	1,400-watts	NV8606E/V	6 final amps	3,900-watts
NV8603E/V	3 final amps	2,000-watts	NV8608E/V	8 final amps	5,200-watts
NV8604E/V	4 final amps	2,700-watts	(Below model was tested by laboratory, as reported.)		
NV8605E/V	5 final amps	3,300-watts	NV8610E/V	10 final amps	6,400-watts

“6) Please ensure filing is in accordance with KDB 754507, i.e., testing done with maximum number of amps installed etc.”

The transmitter that was tested included the maximum compliment of ten amplifiers and was adjusted for maximum power output as per the NV86310E/V System Manual. The testing laboratory’s revised



measurement report B0A00002 has been edited to reflect that fact. A copy of that revised document has been submitted as part of this response. Please refer to *Section 4.5 Operating Conditions*, on page 17 of that document.

“7) Please ensure test report includes measured maximum conducted output power, per 2.1033(c)(6),(7),(9) and 27.50(b)(11), as appropriate.”

The testing laboratory’s revised measurement report B0A00002 now indicates that it references power measurements in accordance to 47CFR2.1033(c) in *Section 1 Summary, Table 1.1.2 Transmitter Output Power* on page 4. Average power measurement and the method used to arrive at same is presented in more detail in *Section 6.2.3 Average Output Power* of the measurement report starting on page 32.

“8) FYI if part 73 or part 74 are not applicable, please use equipment class TNB not TBC.”

Parts 73 and 74 of the Rules are not appropriate for this application so Form 731 should be revised to show the correct class of equipment.

It should be noted that power measurements have been listed for the transmitter under test both before and after the channel filter. This is because there are several different channel filters available to use with the transmitter as described in the Application. While the overall response curves of each filter type are very similar to one another the insertion loss can vary from model to model, and even from unit to unit of the same model type. For that reason the power setting for an individual transmitter should always be determined before the filter to insure that it is not operated beyond its capability in any given individual transmitter/filter combination.

Thank you very much for your consideration in this matter. If you have further questions please do not hesitate to contact me.

Respectfully submitted,

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Enclosures / Attachments

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