

ENGINEERING REPORT

FM Translator “Long Form” Filing for Original Construction Permit Application

NEW292D – Satsop, WA
File No. BNPFT-20030314AHU
Facility ID No. 146938

Long-Form “Singleton Filing pursuant
to Auction 83 (AUC-03-83-D)

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(Exhibit numbering is in response to FCC Online Form 349, Section III-A)

Discussion

This firm has been retained to prepare the required engineering report in support of a minor Construction Permit “Long Form” Filing for FM Translator Application BNPFT-20030314AHU (Facility ID No. 146938). The pending “Short-Form” Application specified operation on CH292D (106.3 MHz) with 0.010 kW ERP of directional power at an antenna COR of 842 meters AMSL, horizontal and a COR of 839 meters AMSL, vertical. Identical Operating Parameters will be requested in this “Long-Form” Filing. The translator will rebroadcast primary station KGHO-LP – Hoquiam, WA, CH253L1, 98.5 MHz, (Facility ID No. 134721).

The facility will be located on an existing tower with no Antenna Structure Registration required. The proposed site is shown on a topographical map which has been included as **Exhibit 13.1**. The vertical antenna system has been plotted in **Exhibit 13.2**. As this proposal will not increase the overall tower height, it is believed the FAA need not be notified.

The proposed operating parameters have not changed from the original “Short-Form” values, therefore, the proposed service contour is identical to the short form application service area as seen in **Exhibit 13.3**.

The proposed 60 dBμ contour of the Translator falls entirely outside of the KGHO-LP licensed (BLL-20080331AGD) 60 dBu contour. A map of the proposed service contour in relation to the primary station service contour has been included in **Exhibit 13.4**. Therefore, this proposal will be licensed as a non Fill-In FM Translator.

It has been determined the translator may be used in the area without interference to any existing FM broadcast station or proposed. General allocation details are found in **Exhibit 13.5**.

Detailed studies have been made on the following stations, AP293D – Independence, WA (BNPFT-20030310BNJ), Facility ID# (140751); AP293D – Independence, WA (BNPFT20130808AHZ), Facility ID# (140751); KOWA-LP – Olympia, WA (BLL-20040816AAB), Facility ID# (135604); and KBKS-FM – Tacoma, WA (BLH-20001023AFA), Facility ID# (27020). The studies are contained in Exhibits 13.6(a), 13.6(b), 13.6(c), and 13.6(d) respectively.

The applicant would like to note the use of the NGDC 30 second terrain database for all allocation protection studies as well as all contour and HAAT calculations employed in this Form 349 filing.

Discussion (continued)

RADIATION PROTECTION: The Commission requires an engineering study regarding compliance with the guidelines for human protection from radiofrequency radiation. This report section is in response to that provision of the Rules. The current Federal Communications Commission guidelines for RF radiation protection are set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01).

The FM Broadcast facility proposed in this application will not produce human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1307(b)(3) of the Commission's rules concerning RF contributors of less than 5%. ***Exhibit 17.1*** provides the details of the study that was made to demonstrate compliance. The facility is properly marked with signs, and entry is restricted by means of fencing with locked doors and/or gates. Any other means as may be required to protect employees and the general public will be employed.

In the event work would be required in proximity to the antenna such that the person or persons working in the area would be potentially exposed to fields in excess of the guidelines set forth in OET Bulletin No. 65 (Edition 97-01), the transmitter power will be reduced or the station will cease operation during the critical period.

DISTANCES TO CONTOURS: The following tabulation of the distances to the proposed service contours results from calculations performed in accordance with §73.313(d) and §73.333 Figure 1 utilizing the NGDC 30 second terrain database.

N. Lat. = 465824.0 W. Lng. = 1230811.0 HAAT and Distance to Contour, 3-16 km, 51 pts Method - NGDC 30 SEC						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	206.4	635.6	0.0046	-23.35	0.680	10.87
030	246.1	595.9	0.0016	-27.96	0.400	7.17
060	188.9	653.1	0.0006	-32.58	0.235	4.69
090	117.5	724.5	0.0005	-32.96	0.225	4.55
120	104.3	737.7	0.0005	-32.77	0.230	4.66
150	137.6	704.4	0.0005	-33.15	0.220	4.45
180	199.7	642.3	0.0007	-31.37	0.270	5.30
210	251.9	590.1	0.0024	-26.29	0.485	8.29
240	331.1	510.9	0.0059	-22.27	0.770	10.86
270	213.9	628.1	0.0090	-20.45	0.950	13.57
300	206.5	635.5	0.0099	-20.04	0.995	14.07
330	277.0	565.0	0.0082	-20.87	0.905	12.47
Ave El= 206.74 M HAAT= 635.26 M AMSL= 842.0						