

Comprehensive Engineering Statement

prepared for

OMG FCC LICENSES LLC

K246BV Astoria, OR

Facility ID 139112

Ch. 292D 0.250 kW 166.4 m HAAT

OMG FCC Licenses LLC (“*OMG*”), proposed assignee of FM Translator K246BV, currently licensed to Wenatchee, WA seeks to relocate this FM Translator for use with KVAS(AM), in compliance with the recent “250-Mile Window Waiver” under the *AM Revitalization Order*. This application seeks to operate the translator on Channel 292D at 0.25 kW and 166.4 meters HAAT (40 meters AGL) to the tower with Antenna Registration Number 1047269 located at 46-10-55.6 N 123-48-09.5 W (NAD 27), 192.1 miles distant.

The location of the 60 dB μ coverage contour of the proposed translator is shown in the map provided as **Figure 1**. A study of nearby FM facilities on co-channel, adjacent-channel, and intermediate frequencies was conducted to identify which stations require further study to demonstrate compliance under §74.1204. The nearest station meriting consideration is KLOO-FM, licensed to Corvallis, OR, which is co-channel on channel 292. As shown in **Figure 2**, no prohibited contour overlap was found, and K246BV at the above location was determined to meet the contour overlap requirements of §74.1204.

OMG proposes to operate this facility as a fill-in translator for KVAS(AM) (Facility ID 38907, 1230 kHz, Astoria, OR). As shown in **Figure 2**, the proposed translator coverage contour is completely within the 2 mV/m KVAS coverage contour and a 25-mile radius from KVAS, thus complying with §74.1201(j).

The proposed site is located 227.74 km from the Canadian border, and the 34 dB μ contour does not overlap Canadian territory. The site is more than 1600 km from the Mexican border, beyond the coordination distances with that country. The nearest FCC monitoring station is 322.38 km distant at Ferndale, WA. This distance exceeds the threshold minimum distance specified in §73.1030 that would suggest consideration of the monitoring station.

It is therefore believed that the proposed facility satisfies all of the pertinent Commission Rules and Policies now in effect regarding allocation matters.

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The proposed facility will operate with a circularly-polarized ERP of 250 Watts utilizing a Shively 6812B-2 antenna on existing tower structure ASRN 1047269, which also comprises the antenna support for KVAS-FM. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. Because no change in structure height is proposed, no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

Human Exposure to Radiofrequency Radiation

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 ("OET 65"). OET 65 describes a means of determining whether a proposed facility meets the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

The general population/uncontrolled maximum permitted exposure ("MPE") limit specified in §1.1310 for the entire FM broadcast band is $200 \mu\text{W}/\text{cm}^2$. For the purpose of this study, "public access" will be considered at the base of the tower at a location two-meters above ground.

The formula used for calculating FM signal density in this analysis is essentially the same as equation ten (10) in OET 65:

$$S = (33.4098) (F^2) (ERP) / D^2$$

Where:

- S = power density in microwatts/cm²
- F = relative field factor
- ERP = total (average ERP in Watts)
- D = distance in meters

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According to information provided by the antenna manufacturer, the antenna has an elevation pattern of 55.2% relative field at points 30 or more degrees below the horizon. Using the above formula, facility ERP, and the maximum relative-field value of 55.2% in every direction, it was determined that the proposed facility would contribute a worst-case RF power density of $3.2 \mu\text{W}/\text{cm}^2$ at two meters above ground level near the antenna support structure, or 1.6 percent of the general population/uncontrolled limit.

§1.1307(b)(3) states that facilities at locations with multiple emitters are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent of the pertinent MPE limit. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of any other facilities near this site may be considered independently from this proposal. Accordingly, it is believed that the impact of the proposed operation should not be considered to be a factor at ground level as defined under §1.1307(b).

Safety of Tower Workers and the General Public

As demonstrated herein, excessive levels of RF energy will not be caused by the proposal at publicly accessible areas at ground level near the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, tower access will continue to be restricted and controlled through the use of a locked fence. According to information provided by the applicant, appropriate RF exposure warning signs are posted.

With respect to worker safety, it is believed that based on the preceding analysis, excessive exposure would not occur in areas at ground level. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines would otherwise be exceeded. On-site RF exposure measurements may also be undertaken to establish the bounds of

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safe working areas. The applicant will coordinate exposure procedures with all pertinent stations. Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under §1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.

Conclusion

It is therefore believed that the proposed facility satisfies all of the pertinent Commission Rules and Policies now in effect.

EXHIBIT 13 - FIGURE 1 PROPOSED FM TRANSLATOR PREDICTED COVERAGE

Prepared February 2016 for
OMG FCC Licensee LLC
K246BV Astoria, OR Fac ID 139112
Ch. 292D 0.25 kW 166.4 m HAAT

Cavell, Mertz & Associates, Inc.
Manassas, Virginia



Proposed FM Translator
60 dB μ F(50,50) Contour

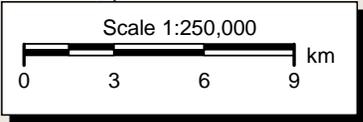


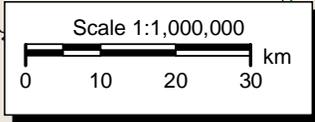
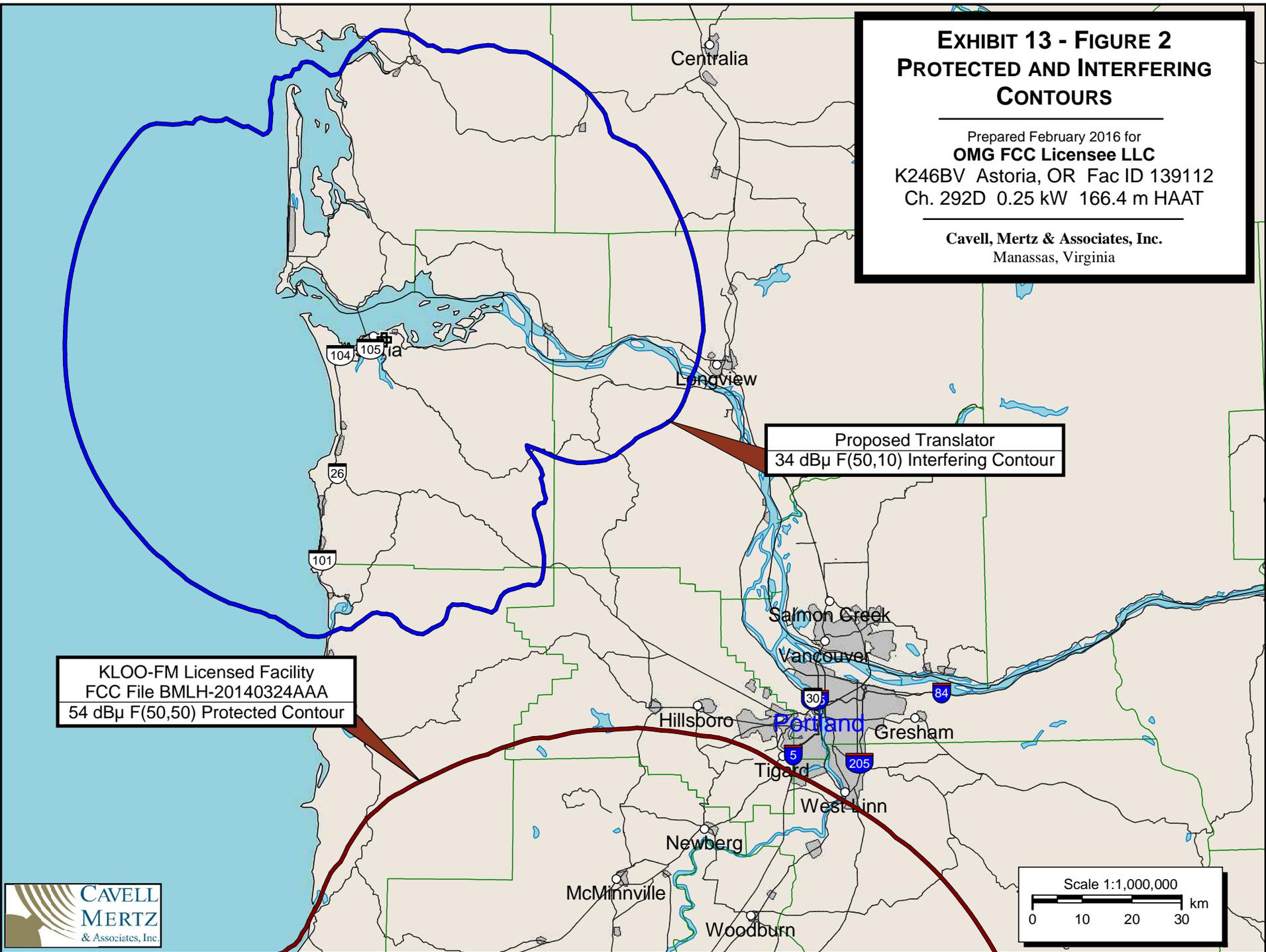
EXHIBIT 13 - FIGURE 2 PROTECTED AND INTERFERING CONTOURS

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Cavell, Mertz & Associates, Inc.
Manassas, Virginia

KLOO-FM Licensed Facility
FCC File BMLH-20140324AAA
54 dB μ F(50,50) Protected Contour

Proposed Translator
34 dB μ F(50,10) Interfering Contour



**EXHIBIT 13 - FIGURE 3
PROPOSED FM TRANSLATOR
SECTION 74.1201(J) COMPLIANCE**

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