

Exhibit 12 - Comprehensive Engineering Statement

prepared for

Team Radio, LLC

NEW(FX) Blackwell, OK

Facility ID 201333

Channel 227D 0.25 kW 64 meters AGL

Team Radio, LLC (“*Team*”), seeks to propose a new cross-service FM translator for standard broadcast station KOKB(AM). The instant application is part of the Auction 99 filing window¹. In particular, *Team* proposes to use as its antenna supporting structure a tower listed under FCC ASRN 1012227 located at 36° 46’ 58.9”N, 97° 04’ 14.9”W (NAD 27). The proposed antenna will be an omni-directional system, circularly polarized, which will be mounted at 64 meters AGL. An ERP of 250 Watts is being specified.

Allocation Considerations

As shown in **Figure 1**, the proposed translator’s 60 dBμ coverage contour lies completely within the KOKB(AM) daytime 2 mV/m contour, as well as within a 40 km radius of KOKB(AM). As such, this proposal complies with §74.1201(g) of the Commission’s Rules.

Regarding allocation matters, 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 separation between this proposal and pertinent other facilities in the region indicates that *no* stations require further study.

The proposed site is located well beyond the 320 km coordination distance to either the Canadian or Mexican borders required for translators specified in §74.1235(d). The nearest FCC monitoring station is 474.39 km distant at Grand Island, NE and the facility is more than 802.36 km from the Table Mountain Quiet Zone. These distances exceed the threshold minimum distance specified in §73.1030 that would suggest consideration.

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

¹ Public Notice Filing Instructions for Cross-Service FM Translator Auction Filing Window for AM Broadcasters to be Open July 26 – August 2, 2017, Released June 6, 2017, DA 17-533.

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Environmental Considerations

The proposed facility will operate with a circularly-polarized ERP of 250 Watts with an omni-directional antenna, at 64 meters AGL on an existing tower which bears FCC Antenna Structure Registration Number 1012227. Other broadcast facilities currently share this structure. 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.

Using the FCC's FM Model program and a worst-case EPA Type 1 single bay antenna, it was determined that the proposed facility would contribute a worst-case RF power density of $2.62 \mu\text{W}/\text{cm}^2$ at two meters above ground level near the antenna support structure, or 1.3 percent of the general population/uncontrolled limit.

FCC Rule §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

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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 gate. According to information provided by the applicant, appropriate RF exposure warning signs are posted. In the event that maintenance or other workers gain access to the tower, power output of the translator will be decreased or shut off to protect workers.

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 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 12 - FIGURE 1
COVERAGE CONTOUR COMPARISON**

prepared February 2018 for

**Team Radio LLC
NEW(FX) Blackwell, OK
Facility ID 201333
Ch. 227D 0.25 kW 64 m AGL**

**Cavell, Mertz & Associates, Inc.
Manassas, Virginia**

**NEW(FX) Proposed
Ch 227D 250 Watts
60 dBμ F(50,50)**

TX Site

**KOKB(AM) Day License
2 mV Contour**

40 km (25 mile) Radius

TX Site

Blackwell, OK

Ponca City

Arkansas City

Winfield



Scale 1:750,000

0 10 20 30 km