

Engineering Statement in support of  
FCC FORM 301  
APPLICATION FOR CONSTRUCTION PERMIT  
FOR A COMMERCIAL BROADCAST STATION  
(For a minor change to a Licensed Facility)  
KXMG, Facility ID 25520

This is an application by Sunburst Media-Louisiana. LLC, (the Applicant) for a minor change to the licensed Facility of KXMG, Facility ID 25520.

The applicant proposes the following changes:

- Move to a new site at 29° 48' 30" North, 89° 45' 42" West. Registered tower #1027930.
- Change the station class to C1. The proposed site is fully spaced under 73.207.
- Increase ERP to 100 kW, the maximum level permitted by a class C1 facility at the proposed height.

The proposed changes are minor since there is no change in frequency or community and the change to a higher class is permitted under 73.3573(a)(1)(ii).

The proposed site is fully spaced under 73.207 and the community is 100% covered by the proposals 70dBu F(50,50) city grade contour.

Two 100kW FM radio stations, the proposed facility and KMEZ (Facility ID 58395), will operate at this site through a single antenna. The center of radiation of the antenna is 299-meters AGL.

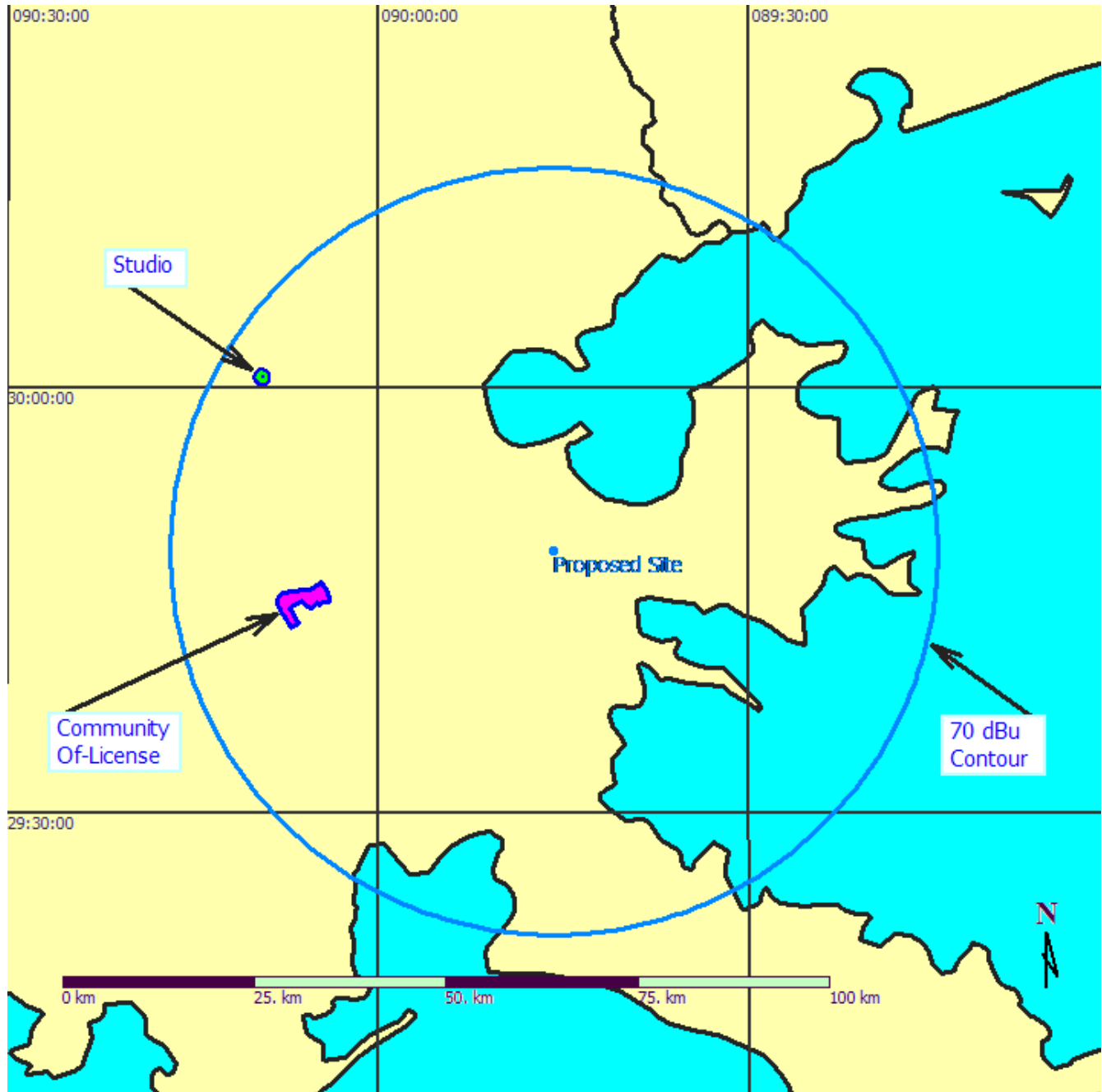
Based on calculations using procedures outlined in OET Bulletin No. 65 the proposal, combined with the existing radio station, will result in RF radiation levels two meters above the ground of less than  $151.5\mu\text{W}/\text{cm}^2$  or 75.7% of the maximum permitted level for public exposure. This result was obtained by assuming 400kW of RF radiating isotropically at 299-meters AGL. The actual levels on the ground will be considerably less due to the vertical radiation pattern of the antenna.

### Section III Engineering Data:

#### Tech Box Data:

1. Channel 298
2. Class C2
3. Antenna Location: 29° 48' 30" N 89° 45' 41" W
4. Proposed Allotment Location: N/A
5. Antenna Structure Registration Number: 1027930
6. Overall Tower Height: 315 meters AGL
7. Radiation Center Height AMSL: 299 meters (H) 299 meters (V) AMSL
8. Radiation Center Height AGL: 299 meters (H) 299 meters (V) AGL
9. Radiation Center Height HAAT: 299 meters (H) 299 meters (V) AGL
10. ERP: 98 kW (H) 98 kW (V)
11. Max ERP (Beam Tilt): 100 kW (H) 100 kW (V)
12. DA Relative Field: Not Applicable
13. Complies with 73.203: Yes.
14. Complies with 73.315: Yes, see **Community Coverage** exhibit.
15. Complies with 73.1125: Yes, see **Studio** exhibit.
16. Interference rules: Yes
  - a) 73.207: Checked.
  - b) Not Checked.
  - c) Not Checked.
  - d) Not Checked.
  - e) Not Checked.
17. NEPA: Yes.
  - a) To the best knowledge of the Applicant:
    1. The existing structure has been a long standing communication site. The site is not located in an officially designated wilderness area or wildlife preserve, nor does it threaten the existence or habitat of endangered species.
    2. The facility does not affect districts, sites, buildings, structures or objects significant in American history, architecture, engineering or culture that are listed in the National Register of Historic Places, or eligible for listing.
    3. The site is not located in a flood plain and is not expected to require significant changes in surface features such as wetland fill, deforestation or water diversion.
    4. The structure is registered, marked and illuminated in accordance with FAA and FCC requirements.
  - b) The Applicant will cooperate with all site users, managers and owners with regard to the cessation of operation or the reduction of operating power, whenever it is necessary to comply with the FCC Regulations and Guidelines on Human Exposure to Non-Ionizing RF Radiation.
  - c) The modeled contribution to the RF environment, 2-meters above the ground, by the proposed facility is less than  $75.7\mu\text{W}/\text{cm}^2$  or 75.7%, of the maximum permitted value for general public exposure. See **RFR Study** exhibit.

# Community Coverage



The proposed facility covers 100% of the community of license with a 70dBu or greater signal.

The main studio is located within the proposed facility's principal community contour in accordance with 73.1125(a)(2).

## RFR Study

The proposed facility's signal will be combined with existing station KMEZ's signal and radiated through a common antenna. The existing antenna's radiation center is at 299-meters AGL.

OET Bulletin 65 provides the following formula to model RF power density:

$$S(\mu\text{W}/\text{cm}^2) = (33.4098 \times \text{ERP}(\text{Watts})) / (\text{Distance}(\text{meters})^2)$$

Assuming the worst possible case, with each station radiating 200,000 Watts straight down to a point two meters above the ground (297-meters) the formula predicts  $151.5\mu\text{W}/\text{cm}^2$  or 75.7% of the maximum permitted level for public exposure. The actual levels on the ground will be considerably less due to the vertical radiation pattern of the antenna.