

# **KETR(FM) – Commerce, TX**

## **Compliance with Radiofrequency Radiation Guidelines**

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### **CERTIFICATION OF ENGINEERS**

The firm of Munn-Reese, Broadcast Engineering Consultants, with offices at 385 Airport Drive, Coldwater, Michigan, has been retained for the purpose of preparing the technical data forming this report.

The data utilized in this report was taken from the FCC Secondary Database and data on file. While this information is believed accurate, errors or omissions in the database and file data are possible. This firm may not be held liable for damages as a result of such data errors or omissions.

The report has been prepared by properly trained electronics specialists under the direction of the undersigned whose qualifications are a matter of record before the Federal Communications Commission.

I declare under penalty of the laws of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

February 4, 2020

**MUNN-REESE**



By \_\_\_\_\_

Bruce Bellamy, President

385 Airport Drive, PO Box 220  
Coldwater, Michigan 49036  
Telephone: 517-278-7339

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The RF Compliance Study has been evaluated for human exposure to non-ionizing radiofrequency radiation at this single source transmitter site. Therefore, the potential for human exposure to non-ionizing radiofrequency radiation at the proposed transmitter site has therefore been evaluated with regards to §1.1310 concerning contributions for single source sites. There are no other sources of RF radiation within 315 meters of this site.

The KETR(FM) – Commerce, TX analog FM station (Facility ID: 18260) operates on CH205C1 (88.9 MHz) with 100.0 kW ERP circular polarization (H&V). The facility broadcasts from an antenna COR mounted 108 meters above ground level (AGL). The facility operates with a eight bay, Phelps Dodge CFM-HP-8 antenna employing EPA Type 1 "Ring Stub" elements as defined by *FM Model - Appendix B* issued March 31, 2016<sup>1</sup>. The elements are spaced one wavelength ( $\lambda$ ) apart. This facility will not operate with HD/IBOC facilities at this time.

To evaluate the total exposure to non-ionizing radio-frequency radiation with regards to the single source contribution rules, the individual contribution may be expressed directly in  $\mu\text{W}/\text{cm}^2$  units relative to the maximum permissible uncontrolled environment limit of  $200 \mu\text{W}/\text{cm}^2$ . If the resulting contribution is less than or equal to  $200 \mu\text{W}/\text{cm}^2$ , the exposure is concluded to be within the guidelines of OET Bulletin No. 65 (Edition 97-01) and §1.1310 for the more restrictive uncontrolled limit. Protection of the uncontrolled limit (implies protection of the controlled limit ( $1000 \mu\text{W}/\text{cm}^2$ )).

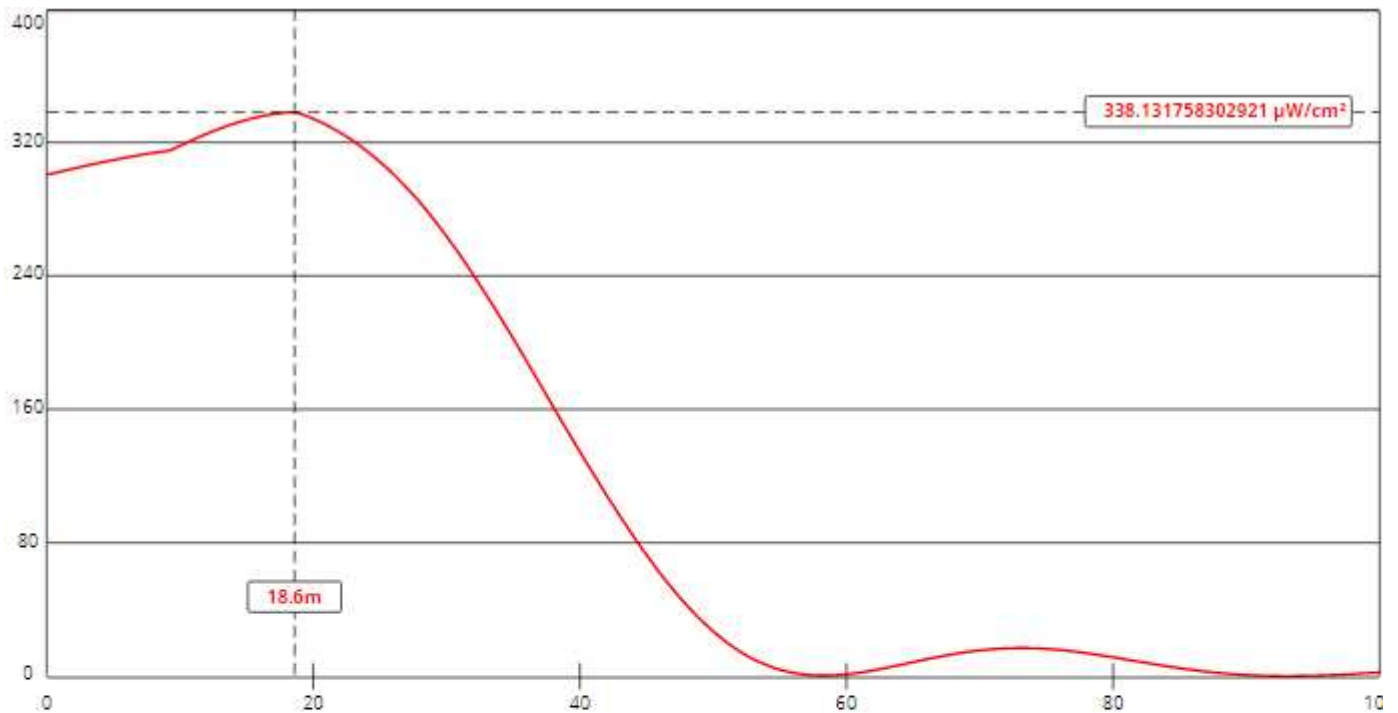
Inspection of the graph below shows the maximum contribution for the uncontrolled environment to be less than  $200 \mu\text{W}/\text{cm}^2$  outside of a 40 meter base around the tower as set forth by §1.1310. Therefore, the facility is in compliance with FCC guidelines. The maximum contribution to the controlled environment is  $338 \mu\text{W}/\text{cm}^2$ . The controlled environment is not accessible to the public and is surrounded by a 7' high fence with barbed wire and a locked gate. The permitter will be posted with adequate signage indicating a RF Radiation hazard to the general public. The fencing has a minimum distance of 43 meters from the base of the tower.

In the event work is required in proximity to the antenna(s) such that the person or persons working in the area will be potentially exposed to fields in excess of the current guidelines, an agreement signed by all broadcast parties at the site will be in effect for the offending transmitter(s) to reduce power or cease operation during the critical period.

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Channel Selection	Channel 205 (88.9 MHz) ▼		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▼		
Height (m)	<input type="text" value="108"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="100000"/>	ERP-V (W)	<input type="text" value="100000"/>
Num of Elements	<input type="text" value="8"/>	Element Spacing ( $\lambda$ )	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

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Photo of Site Illustrating Fencing Distance

