

Exhibit 2  
**ENVIRONMENTAL CONSIDERATIONS**  
prepared for  
**New Rushmore Radio, Inc.**  
K09YI-D Gillette, Wyoming  
Facility ID 167560  
Ch. 9 300 Watts

**Introduction**

*New Rushmore Radio, Inc.* (“*Rushmore*”) licensee of digital Class A television station K09YI-D, Gillette, WY, proposes changes in antenna model, antenna pattern, and a *decrease* in antenna height. No other changes are proposed. The instant proposal is not believed to have a significant environmental impact as defined under §1.1306 of the Commission’s Rules. Consequently, preparation of an Environmental Assessment is not required.

The use of existing tower structure has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. The proposed antenna will be side-mounted on an existing tower structure. No change in the overall height of the structure is proposed herein. Other than the human exposure to radiofrequency electromagnetic fields addressed below, all other §1.1307(a) matters are covered by the tower owner as certified to in the FCC application for Antenna Structure Registration of this structure.

**Public Exposure to Radiofrequency Electromagnetic Field**

The proposed operation was evaluated for human exposure to radiofrequency (RF) energy using the procedures outlined in the Commission’s OET Bulletin No. 65 (“OET-65”). The Channel 9 antenna will be situated such that its center of radiation is 66 meters above ground. A maximum ERP of 300 Watts, horizontally polarized, will be employed. According to elevation pattern data provided by the antenna manufacturer, the K09YI-D antenna has a relative field of less than 70 percent from 30 to 90 degrees below the horizontal plane (i.e., below the antenna). Thus, a value of 70 percent relative field is used for this calculation. The “uncontrolled/general population” limit specified in §1.1310 for Channel 9 (center frequency 189 MHz) is 200  $\mu\text{W}/\text{cm}^2$ .

OET-65’s formula for television transmitting antennas is based on the NTSC transmission standards, where the average power is normally much less than the peak power. For DTV facilities, the peak-to-average ratio is different than the NTSC ratio. The DTV ERP figure herein refers to the

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*average* power level. The formula used for calculating DTV signal density in this analysis is essentially the same as equation (10) in OET-65.

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

Where:

<i>S</i>	=	power density in microwatts/cm <sup>2</sup>
<i>ERP</i>	=	total (average) ERP in Watts
<i>F</i>	=	relative field factor
<i>D</i>	=	distance in meters

Using this formula and the above assumptions, the proposed facility would contribute a power density of 1.2  $\mu\text{W}/\text{cm}^2$  at two meters above ground level near the antenna support structure or 0.6 percent of the general population/uncontrolled limit. At ground level locations away from the base of the tower, the calculated RF power density is even lower, due to the increasing distance from the transmitting antenna. Consequently, it is believed that members of the general public will not be exposed to RF levels in excess of FCC limits.

§1.1307(b)(3) states that facilities contributing less than five percent of the exposure limit at locations with multiple transmitters are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of any other facilities at 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 or near ground level as defined under §1.1307(b).

### **Occupational Exposure to Radiofrequency Electromagnetic Field**

Access to the tower compound is restricted to trained service and station personnel. A site exposure policy will continue to be employed protecting maintenance workers from excessive exposure when work must be performed on the tower or in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, placement of RF exposure warning signs on the antenna support structure, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when

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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 working areas that do not exceed exposure guidelines. The applicant will continue to coordinate exposure procedures with other users of this site.

**Conclusion**

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.