KRSH Channel 240A
Facility ID No. 16257

KNOB Channel 244A
Facility ID No. 79003

KXTS Channel 254A
Facility ID No. 72925

KSXY Channel 265A
Facility ID No. 43711

Geyserville, CA
Tower Site

Exhibit 3
FCC Form 301
Comprehensive Technical Exhibit Jan 14, 2021

TECHNICAL NARRATIVE

The applicant, JYH BROADCASTING, requests authority to operate an FM Combined Antenna System on the existing tower. The previous antennas were lost to the California Wildfires and will be replaced with a multi-station antenna.

J Y H seeks to operate with 2.75k w at 150 m HAAT from the existing tower site associated with the facilities listed above. The transmit antenna will be an ERI Model SHPX-6AC-HW-SP six bay 0.5 wave length circularly polarized antenna with a center of radiation of 10 meters height above ground level.

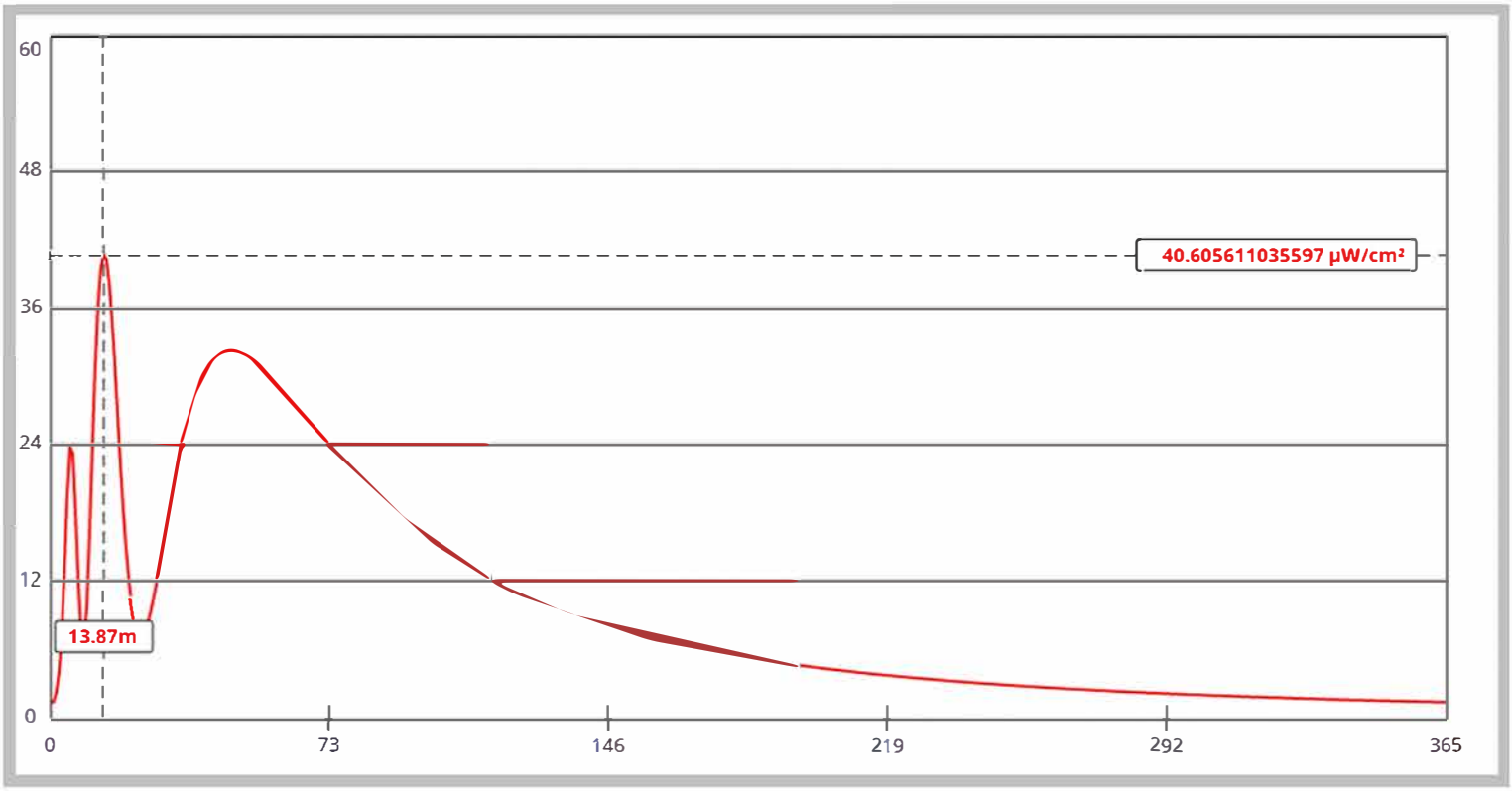
Compliance with environmental processing is demonstrated in Section III – FM Engineering - Environmental Protection Agency - Exhibit 3-A as Compliance with RF Exposure Limits and Section 106 and FM Model for Windows.

Exhibit 3-A
Human Exposure to Radiofrequency Electromagnetic Field
&
Section 106 Compliance
(Environmental)

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. JYH BROADCASTING., licensee of KNOB, requests authority to operate an FM Combined Antenna System. The transmitting site is the existing tower, 18.3 meters in overall height. The tower is located at 38° 44' 07.9" N ~ 122° 50' 54.9" W (NAD 27). The proposed antenna is a side mounted ERI Model SHPX-6AC-HW-SP six bay 0.5 wave length circularly polarized antenna. The facilities will operate with 2.75 kilowatts ERP at 10 meters above ground level and 150 meters HAAT. 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.
The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The ERI antenna is included in the Antenna Types in the OET's updated FM Model Program under Type 3 Opposed "U" dipole. Using the Commission's FM Model Program, the maximum calculated signal density near the tower at two meters above ground level. This study considers all nearby contributing stations, specifically the co-located KRSH, KXTS, KSXY & KNOB, and utilizes the appropriate formulas contained in the OET Bulletin.

It is noted that the combined antenna site is located on private property on Geyser Peak Road. The road to the site is gated to prevent the general public from having access. The gate is located 1,200 feet from the summit of the hill on which the tower site is located. As such, the contribution of radio frequency radiation for the uncontrolled environment will be calculated at the gated access point, 365.7 meters (1,200 feet) from the site.

Combining the contributions of the KSXY, KNOB, KXTS and KRSH, a total of 10.1 % of the controlled environment is reached at 2.0 meters above the ground at the base of the tower and 4.6% of the uncontrolled environment at the gated access point 365.7 meters from the tower. This is well below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.
The applicant has seen that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.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292
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13.87m