Engineering Statement
University of Wyoming
11/2/2021
Pinedale, WY

The applicant is applying for a new NCE FM Construction Permit.

Facility ID No: 762739

Geographic Coordinates: N. Lat. 42-50-40.10, W. Long. 109-55-27.9 (NAD 83)

Elevation at the site: 2348.5 m

Channel number: 205 (89.9 MHz)

Antenna height C.O.R. above ground: 10.0 m

Proposed Antenna COR: 2358.5 m AMSL, HAAT: 135.7 m

Tower height above ground: 60.0 m

Antenna Type: ERI MP-3E

ERP: 8.0 kW, circularly polarized

Page #2: Coverage map showing the 60 dBu contour. As shown on the map, the principal city of Pinedale, WY is fully covered by the principal city contour.

Page #3: Distance to contour and HAAT table for the eight cardinal radials.

Pages #4 through #10: Channel study using V-Soft Communications, FMCommander program. This study shows that the proposed facilities will not cause, nor receive, contour overlap interference as per section 73.509 of the Commission's rules.

Page # 11 through #14: RF hazard: The proposed facility would be the sole FM Broadcast facility at this site. Utilizing the FCC FM Model shows that the power density from the proposed 3-bay type #3 antenna with an effective radiated power of 8.0 kW and COR of 10 m A.G. would produce 0. 891162472641 $\mu W.cm^2$ at 3m from the tower base.

Page #15: Description of how the contour-to-contour channel study should be read and the abbreviations used therein.

Page #16: Site map showing the proposed Pinedale, WY site at the proposed coordinates.

Page #17: Service Count Population report.

Page #18: Exhibit stating the qualifications of the preparer.