

**Technical Narrative for Educational Public Radio, Inc.**

**RF Radiation Study**

WAVQ, Minor Modification, 90 kW, 88.3 MHz, Class C1, 76m RCAGL

**Environmental Concerns Statement**

The applicant proposes to collocate on an existing communications site on an existing structure registered with the FCC. No change in environment will take place as a result of this proposal. Pursuant to 47 CFR 1.1307, the proposed application is categorically excluded from environmental processing other than RF radiation calculations reported below.

**RF Radiation Considerations**

The proposed transmission facility will be the only continuously transmitting apparatus at the proposed site. The proposed transmitting antenna will operate at an Effective Radiated Power level of 90 kW Vertical and 0.25 kW Horizontal with a center of radiation 76 meters above ground level. 74 meters is assumed for calculation purposes for average human head height. The applicant proposes to use a full-wave spaced six bay ERI P-300 with a radiation center of 76 meters above ground. At this power and height above ground 74 meters from the radiation center of the antenna the maximum RF radiation figure for this type of antenna occurs 24 meters from the structure base and is 36.95 uW/cm<sup>2</sup> which is 4.5 percent of the controlled/occupational limit and 18.5 percent of the uncontrolled/general population limit set forth in OET Bulletin 65 (Edition 97-1) for FM Broadcast Antennas. The calculations were made using the OET FM Model Computer Program provided by the FCC. Therefore the proposed construction would be easily in compliance with ANSI regulations with respect to RF Radiation. Proposed construction will be in an unmanned building and therefore would not pose a threat with respect to RF Radiation to workers on a regular basis. Should the site be visited by any personnel who would need to climb the structure or otherwise be exposed to harmful RF radiation, provisions will be made for the power to be lowered or removed to a safe level to comply with ANSI Regulations. To prevent unauthorized personnel from obtaining access to the tower and climbing the structure resulting in overexposure to RF Radiation, locked anti climb equipment will be placed at site to secure the structure.