

## **Exhibit E-10**

### **Environmental Issues**

#### **1.) Sensitive Areas and Surface Features**

The proposed station is located in an area of wild rugged mountains. This site is not within the boundaries of any designated wilderness area, wildlife preserve, or historic landmark. It is therefore not of environmental significance as defined by the Commission in CFR §1.1307(a)(1-7).

#### **2.) New High Intensity Lighting in Residential Areas**

The proposed station is not to be located in a residential area. It is therefore not of environmental significance as defined by the Commission in CFR §1.1307(a)(8).

#### **3.) Radiation Hazard Analysis**

The proposed station will operate on a new tower. There are no other occupants on the tower at this time. This application is for 40 kW ERP vertically polarized at 22 meters above ground level. The antenna chosen is a 5-bay full wave spaced array.

Appendix C of OST Bulletin No. 65 (second edition) specifies the maximum radiation in the 30 MHz to 300 MHz region should be limited to 1000  $\mu\text{W}/\text{cm}^2$  for occupational/controlled exposure and 200  $\mu\text{W}/\text{cm}^2$  for general population/uncontrolled exposure. The instant application was evaluated with the Commission's FMMODEL program, acquired from the FCC Office of Engineering and Technology Internet site. FMMODEL reports that the peak value of the power density for the proposed station at 2 meters above the ground as 239  $\mu\text{W}/\text{cm}^2$  at 8 meters from the tower. This is 24 % of the maximum allowable occupational exposure level and 120 % of the allowable uncontrolled exposure level.

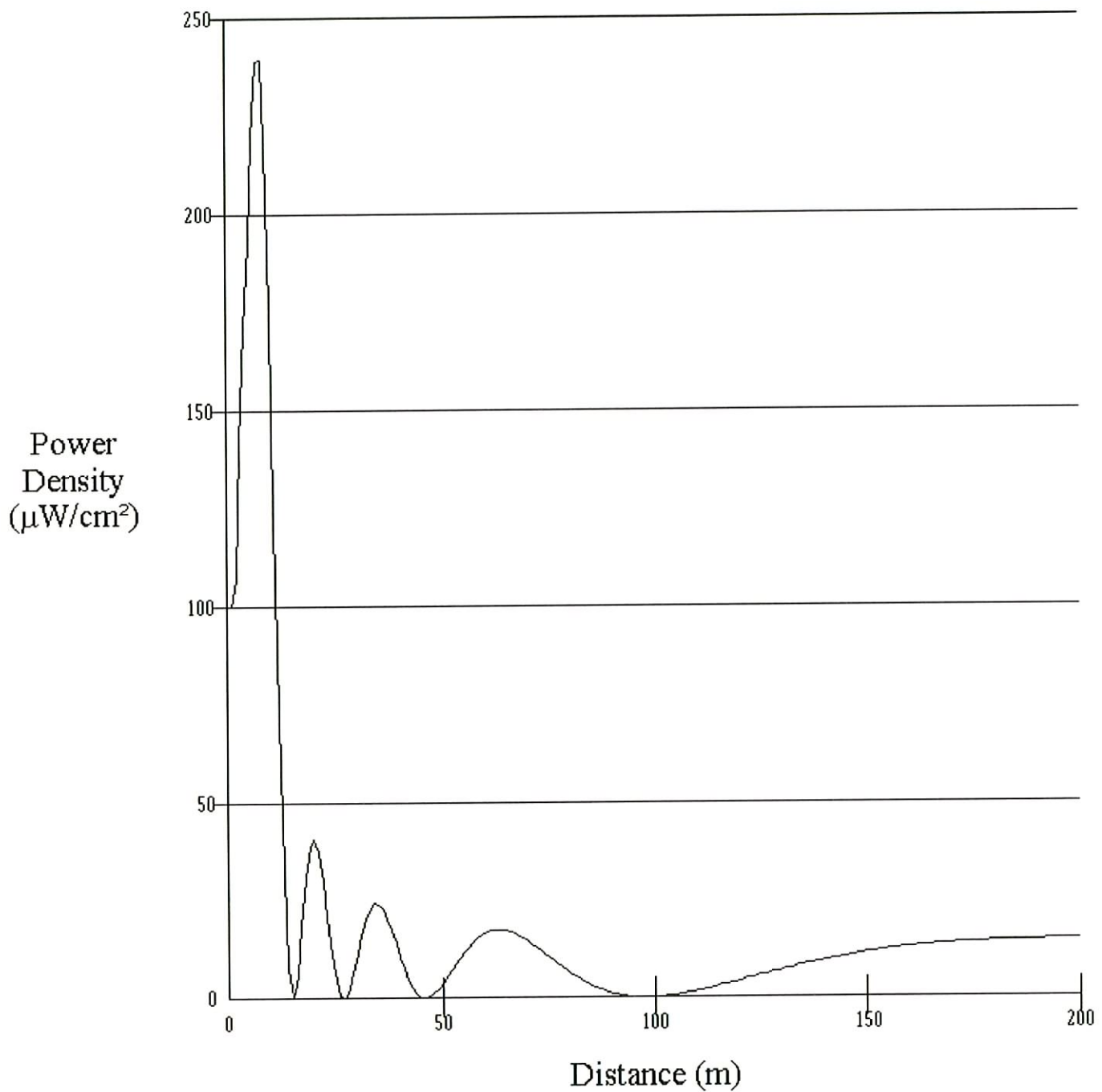
CSN International has also filed an application at 353 meters distance from the proposed station. The distance and proposed antennas for the two stations are such that the radiation at the midpoint is less than 50  $\mu\text{W}/\text{cm}^2$ , which is well within the acceptable limits.

Thus the radiation due to the proposed station is only 24 % of the allowable maximum occupational level. Fencing will be provided to keep the public at least 15 meters away from the proposed site (where the radiation is 120 % of the maximum uncontrolled exposure limit) and thereby keep the uncontrolled exposure below 50  $\mu\text{W}/\text{cm}^2$  (25% of the uncontrolled limit). At any point on the ground in the immediate vicinity of the proposed site, protection is not required for occupational personnel. Protection is only required for personnel climbing the tower. Elsewhere, the resultant field is well below ANSI guidelines.

In the event of work on the tower in the region of the antennas, the transmitter power of the transmitters causing exposure in excess of the limits will be reduced to the extent required, (and possibly shut down, if necessary,) to allow safe work in the immediate region of the antennas. An agreement to that effect will be signed by all parties involved before they are allowed to use the site. The transmitter site will be protected by fencing and a locked gate, as mentioned above. Proper signs will be posted to warn of the potential for exposure to radiofrequency fields.

This site is therefore not of environmental significance as defined by the Commission in CFR §1.1307(b).

# Power Density vs Distance



Office of Engineering and Technology

Distance (m):	<input type="text" value="200"/>	Antenna Type:	<input (epa)"="" rototiller"="" type="text" value="ERI or JAMPRO JBCP "/>
Horizontal ERP (W):	<input type="text" value="0"/>	Number of Elements:	<input type="text" value="5"/>
Vertical ERP (W):	<input type="text" value="40000"/>	Element Spacing:	<input type="text" value="1"/>
Antenna Height (m):	<input type="text" value="22"/>		

**Prop**  
**239.  $\mu\text{W}/\text{cm}^2$**   
**@ 8 meters**

Call AP220  
Status AP  
Chan # 220 (91.9)  
Class C  
Power 40.000  
HAAT m 882  
COR AMSL m 2350  
COR AGL m 21  
Lat 35 06 35  
Lon 113 52 51  
Licensee CSN International  
City Kingman  
State AZ  
Service M  
This Country U  
Border Country M  
Border km 277  
Int'l Class C  
File Number BPED970822MA  
Lic. Filed  
Last Action 980519  
Expire Date 980619  
Polarization E  
Beam Tilt N  
Pattern  
Dir Ant Make  
Dir Ant Type  
Dir Ant Azimut  
Dist = 0.3526 km, Az = 307.7 degr from (N350628,W1135240)

## Exhibit E-11

### Certification of Consultant

Robert Moore, at 1908 Sweetbriar Drive, Goshen, IN, has been retained as broadcast engineering consultant for the purposes of preparing the technical data included in this report.

The maps included in this report, unless otherwise indicated, are computer generated using U.S. Geological Survey Digital Line Graph data which was originally digitized from 1:2,000,000 scale maps. The topographic data utilized is the N.G.D.C. 30 arc second database. Individual elevations were determined using the required four-point interpolation (FCC 84-341, 7/13/84). The radial height above average terrain (HAAT) was calculated at intervals along the radials of 0.1 kilometer along a path from 3 to 16 km from the applicable station. The Commission's own TVFMINT computer algorithm was then used to determine the distance to the pertinent contours based upon the radial HAAT and operating ERP at each azimuth. This process was repeated at 1 degree intervals to determine the coverage, protected and interfering curves utilized here. The population data was determined based on population centroids defined by U.S. Census 1990 (PL-94-171) digital census data taken at the State-County-Voting District/Remainder-County Subdivision, Place/Remainder-Census Tract/Block Numbering Area-Block Group.

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

A handwritten signature in cursive script, appearing to read "Robert C. Moore".

Robert C. Moore

October 7, 1998  
1908 Sweetbriar Drive  
Goshen, Indiana 46528

(219) 534-2002