Environmental Assessment

An Environmental Assessment (EA) is categorically excluded under section 1.1307 of the F.C.C. Rules and Regulations since;

1.1307-a-1 The transmitter facility is not located in an officially designated wildlife area.

1.1307-a-2 The transmitter facility is not located in an officially designated wildlife preserve.

1.1307-a-3 The transmitter facility, will not put in jeopardy any threatened or endangered species, or designated critical habitats. Nor will it jeopardize the continued existence of any proposed endangered or threatened species. It will neither exacerbate in the destruction or adverse modification of any proposed critical habitats, as determined by the Secretary of the Interior, pursuant to the Endangered Species Act of 1973.

1.1307-a-4 The transmitter facility, will not affect districts, site buildings, structures, or objects significant in American history. Nor any engineering or cultural architecture, or archeology, that is listed , or is eligible for listing in the National Register of Historic Places.

1.1307-a-5 The transmitter facility, will not affect any religious sites.

1.1307-a-6 The transmitter facility is not located in a flood plain area.

1.1307-a-7 The transmitter facility will not significantly change the ground surface features.

1.1307-a-8 The transmitter facility will not incorporate high intensity white lights.

1.1307-b The proposed changes to K201HX will not exceed OST 65 limits. The area is not located in a restricted communication site. But the public is heavily restricted from having access to where the antenna will be located. Nevada Public Radio will post signs keeping the public at a safe distance. However considering the worst case scenario, the exposure level produced by the translator will not subject the public to harmful radiation. The facility will use a Scala HCDA-5CP directional circular polarized antenna with a center of radiation 22.3 meters above the ground. When considering a 2 meter tall person standing at the base of the structure, he would be 20.3 meters from the center of radiation. With a maximum radiation of 500 watts (250 watts in each polarization), the ERP in the direction of the man would be (0.178)sq * 500 watts = 15.8 watts. Assuming a 60% ground reflection; we can use equation 4 in OST Bulletin 65, Oct. 1985.

2.56*1.64*100(REF)sq.*(ERP H+V) / 4(3.1416)(D)sq. = MW/(cm)sq.

Where ERP H+V = Maximum ERP in both horizontal and vertical planes.

REF=Relative field factor in the direction of the actual point of calculation.

D=Distance from the center of radiation to the point of calculation.

With this formula we can calculate that a man 2 m tall, would be subject to a radiation level of 0.000128 mw/(cm)sq. Or 0.128 uw/(cm)sq.

2.56*1.64*100*(0.178)sq *500/4*(3.1416)*(2030)sq= 0.000128 mw/(cm)sq

Therefore the application does comply with OST 65 limits.

Furthermore, even though the proposed facility exceeds OST 65 requirements, if work needs to be done on or near the facility, Nevada Public Radio will cease operation of K201HX in order to guarantee the safety of the workers.