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2324 N. CLEVE-MASS RD., BOX 807  
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AL WARMUS, P.E.

May 14, 2010

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Federal Communications Commission  
Office of the Secretary *BlueCell*

Federal Communications Commission  
Digital Radio Notification  
445 12<sup>th</sup> Street, SW  
Room 2-B450  
Washington, DC 20554

Re: Notification of HD Radio<sup>TM</sup> Operation  
WMHW-FM - Mount Pleasant, MI  
Facility ID #: 9910  
Central Michigan University

Gentlemen:

This letter is written on behalf of Central Michigan University, licensee of Radio Station WMHW-FM - Mount Pleasant, Michigan. It is submitted pursuant to Section 73.404(e) of the FCC Rules to provide the required notification that WMHW-FM commenced IBOC digital operation on May 5, 2010 at a digital power level of -20 dBc utilizing its recently upgraded operating facilities (BLED - 20100507ACW). This digital operation fully complies with the iBiquity Digital Corporation hybrid FM transmission specifications.

WMHW-FM has implemented this hybrid IBOC digital operation utilizing low level combining in the exciter of its analog transmitter. The WMHW-FM analog transmitter output is 3.7 kilowatts, as specified in the station license. The total average digital power output of this transmitter is 37 watts, which results in a total combined average power of 3.737 kilowatts into the WMHW-FM transmission line. This results in the WMHW-FM analog effective radiated power in this hybrid mode complying with the value of 9.1 kilowatts specified in the station license, while the average digital effective radiated power is 91 watts.

The implementation of hybrid IBOC digital operation by WMHW-FM fully complies with the FCC's nonionizing radiation exposure standard. This hybrid IBOC operation utilizes a PSI PSIFMR-5 five bay full wave spaced circularly polarized antenna mounted at a height of 161.5 meters above ground. In the hybrid mode, this antenna system operates with a total circularly polarized effective radiated power of 9.191 kilowatts (9.1 kilowatts in the analog mode and 91 watts in the digital mode). The predicted power density levels at two meters above ground level for this hybrid IBOC operation were

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calculated using the FCC's "FM Model" computer program.<sup>1</sup> The results of these calculations are depicted in Figure 1.0. As shown in this figure, the maximum level of power density predicted for this hybrid IBOC operation at two meters above ground level is 1.8  $\mu\text{W}/\text{cm}^2$ , which will occur at a distance of 56 meters from the tower base. Since the permitted power density for uncontrolled exposure in the FM band is 200  $\mu\text{W}/\text{cm}^2$ , this is only 0.9% of the permitted level. Since this is less than 5% of the permitted level for uncontrolled exposure, WMHW-FM is categorically excluded from environmental processing under this exposure standard and need not be considered in conjunction with other co-located or nearby RF sources to establish compliance with this exposure standard.

WMHW-FM will continue to take appropriate steps to insure that workers that must be on this tower will not be exposed to levels of nonionizing radiation that are in excess of the permitted level for controlled exposure. These steps will include the cessation of operation or a reduction in power, as appropriate, when work becomes necessary in areas on this tower where the total power density levels are in excess of the permitted level for controlled exposure.

In the event of interference resulting from this hybrid IBOC operation, the FCC can contact Mr. Wayne Henderson at 989/774-6864. Please direct any questions regarding this matter to this office.

Sincerely,



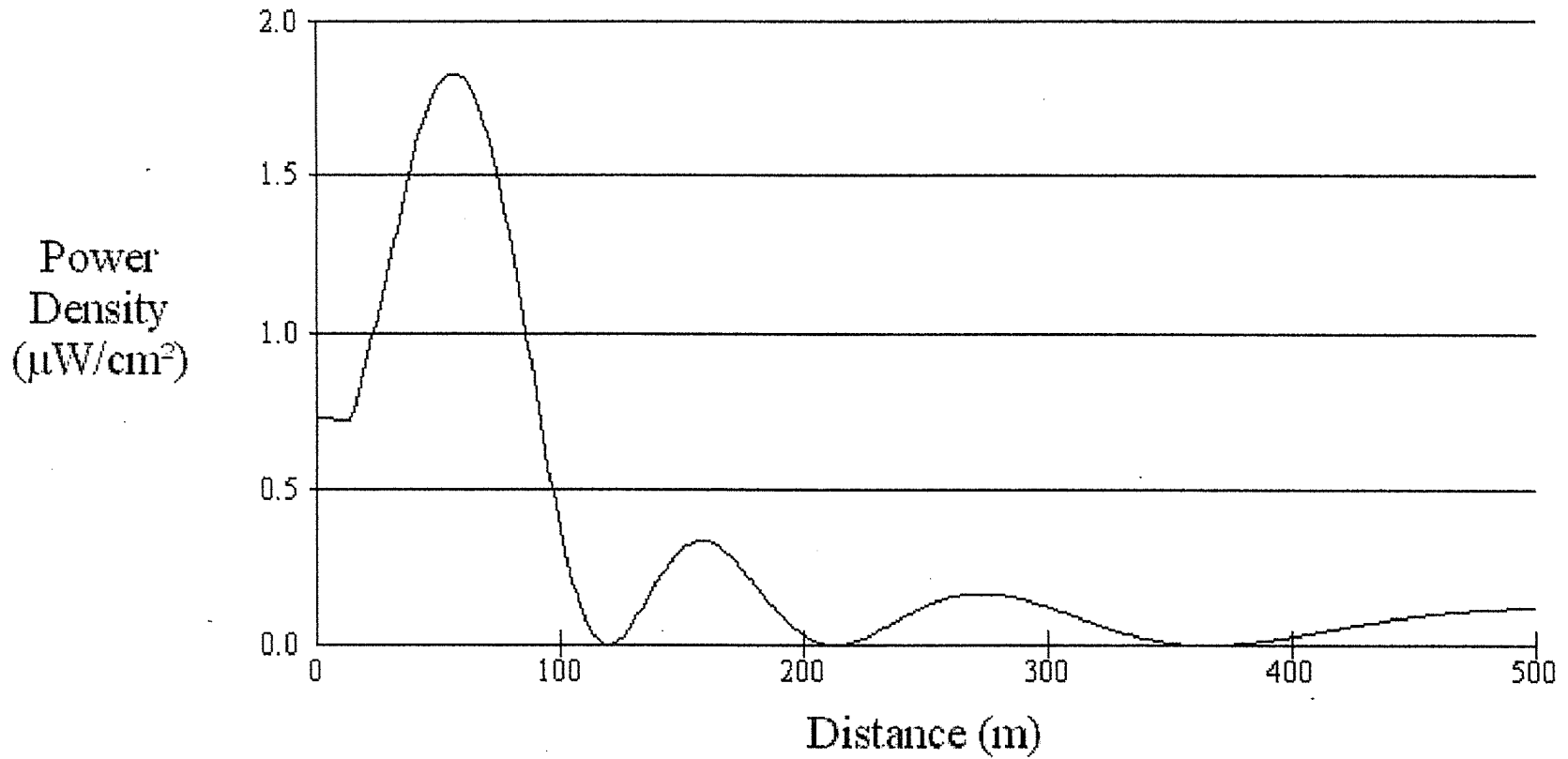
Roy Stype

RS:na  
cc: Pete Orlik  
Alan Campbell

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<sup>1</sup>These calculations assumed the use of an ERI or Jampro JBCP "Rototiller" type antenna, which is essentially identical to the PSI PSIFMR antenna utilized by WMHW-FM

# Power Density vs Distance



Office of Engineering and Technology

Distance (m):	500	Antenna Type:	ERI or JAMPRO JBCP "Rototiller" (EPA)
Horizontal ERP (W):	9191	Number of Elements:	5
Vertical ERP (W):	9191	Element Spacing:	1
Antenna Height (m):	161.5		

FIG. 1.0

WMHW-FM POWER DENSITY CALCULATIONS  
(-20 dBc HYBRID IBOC OPERATION)

Central Michigan University  
Mount Pleasant, MI