

TECHNICAL EXHIBIT
LPTV DISPLACEMENT APPLICATION
FOR CONSTRUCTION PERMIT
STATION WLMO-LP (FACILITY ID 70612)
LIMA, OHIO

NOVEMBER 21, 2003

CH 38(0) 15 KW-DA

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Sketch of Antenna

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Technical Narrative

This technical exhibit supports a low power television (LPTV) displacement application for station WLMO-LP at Lima, Ohio (Facility ID 70612).

Station WLMO-LP is currently licensed to operate on channel 65 with no carrier offset and a non-directional (ND) antenna system (BLTTL-20020321AAR). The visual effective radiated power (ERP) is 4.86 kilowatts (kW). The antenna center of radiation is 302.6 meters above ground level (AGL) and 566 meters above mean sea level (AMSL). The transmitter site coordinates are 40-38-03, 84-12-29. The FCC antenna structure registration number for the tower is 1012273.

Proposed Facilities

Station WLMO-LP qualifies for displacement since it is operating on a channel (65) outside of the FCC's TV core spectrum (channels 2 through 51).

It is proposed to change WLMO-LP's frequency to channel 38 with a zero (0) carrier offset. It is proposed to use a Scala directional antenna (DA) system (FCC Antenna ID 44604) on the current supporting structure. The antenna is also used by stations WOHL-CA (Ch.25, Facility ID 68549) and WLQP-LP (Ch.18, Facility ID 21476). The antenna pattern is cardioid shaped with the major lobe oriented toward 10 degrees True (north). The proposed maximum visual ERP is 15 kW. The center of radiation for the antenna system is 189.9

meters AGL and 453.2 meters AMSL (see Figure 1). There is no proposed change in site (40-38-03, 84-12-29), supporting structure (1012273), or city of assignment (Lima, OH).

NTSC Allocation Considerations

A study has been conducted using the provisions of Sections 74.705, 74.707 and 74.709 of the FCC rules to assure that the proposal will not create prohibited interference with other authorized or pending analog (NTSC) full-power TV, LPTV and Class A TV stations. The proposed WLMO-LP channel 38 operation complies with the FCC's allocation standards with respect to other analog assignments, except for station W61CZ on channel 23 at Lima, Ohio (Facility ID 74373).

With respect to the station W61CZ on channel 23 (BPTTL-19980601UD & BMPTTL-20030327AAY), interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid. The proposed WLMO-LP channel 38 operation complies with the FCC's 0.5% "de minimis" interference standard (ie, the proposal causes less than 0.5% new interference). A waiver of the FCC rules is respectfully requested based on use of the OET-69 method.

The WLMO-LP site is 166 kilometers from the nearest point of the US/Canada border. There are no Canadian analog (NTSC) or digital television (DTV) allotments on channel 38 within 400 kilometers of the WLMO-LP site. If necessary, coordination with Canada is respectfully requested.

The closest point of the Mexican border is more than 1900 kilometers to the southwest. The closest FCC monitoring station is at Allegan, Michigan, approximately 263 kilometers to the northwest. The closest point of the National Radio Quiet Zone (VA/WV) is about 351 kilometers to the southeast. The Table Mountain Radio Quiet Zone is more than 1700 kilometers to the west. The closest radio astronomy site using channel 37 is at Green Bank, West Virginia, approximately 447 kilometers to the southeast. These separations are considered sufficient to not be a coordination concern.

DTV Allocation Considerations

Pertinent DTV allotments and assignments on channels 38 and 39 have been examined using the procedures outlined in the FCC's OET-69 Bulletin.¹ Channel 37 is reserved for radio astronomy and is not used by TV and DTV stations. The proposed WLMO-LP channel 39 operation complies with the FCC's "de minimis" (0.5%) interference policy.

The applicant recognizes the proposal is secondary to authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation. If necessary, a waiver of the FCC rules is respectfully requested based on use of the procedures outlined in the FCC's OET-69 Bulletin.

Radiofrequency Electromagnetic Field Exposure

The proposed WLMO-LP facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A visual ERP of 15 kW with 10% aural power was assumed. A conservative relative field value of 1.0 was assumed for the Scala directional antenna's downward radiation. The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0071 mW/cm². This is less than 2% of the FCC's recommended limit of 0.41 mW/cm² for channel 38 for an "uncontrolled" environment. It is less than 1% of the FCC's recommended limit for a "controlled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by

¹ The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. A Sun based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

If there are questions concerning the technical portion of this application, please communicate with the office of the undersigned.

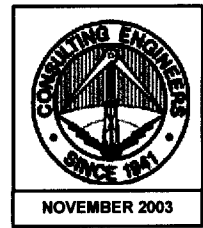
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Figure 1

FCC Tower ID: 1012273



604.4 m AMSL
(1983 ft)

341.1 m
(1119 ft)

Radiation Center
453.2 m AMSL
(1487 ft)

189.9 m
(623 ft)

Site Coordinates:
40°38'03"N
84°12'29"W
(NAD 27)

263.3 m AMSL
(864 ft)

Not to Scale

PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION WLMO-LP
LIMA, OHIO
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida