

TECHNICAL EXHIBIT
APPLICATION FOR DTV CONSTRUCTION PERMIT
IN SUPPORT OF ITS POST-TRANSITION FACILITY
STATION KPIF-DT (FACILITY ID 86205)
POCATELLO, IDAHO

MARCH 20, 2008

CH 15 239 KW (MAX-DA) 327 M

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Technical Narrative {up to 5-mile waiver request}

This Technical Exhibit supports an application to “flash-cut” to digital operation for television station KPIF at Pocatello, Idaho. This application requests a construction permit (CP) for a digital television operation on channel 15, using its existing analog directional antenna. Thus, KPIF-DT is requesting processing under the “up to 5 mile waiver” procedure to allow recovery of its noise-limited service up to the Grade B contour.

Proposed Facilities

Station KPIF-DT proposes to operate DTV channel 15 from its analog transmitter site and antenna, with a maximum directional effective radiated power (ERP) of 239 kilowatts and antenna height above average terrain (HAAT) of 327 meters (same as analog HAAT). The transmitter site coordinates are:

42° 51' 50" North Latitude
112° 31' 10" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. Figure 2 depicts the proposed antenna patterns.

Figure 3 is a map showing the DTV predicted coverage contour and the associated analog Grade B coverage contours. For each noise-limited contour, the 38.8 dBu

dipole-adjusted contour was used, as well as 360-radials and a 3-second digitized terrain database. A 5-mile buffer has been added to the Appendix B allotment coverage contour. The predicted 239 kW, 38.8 dBu contour will not extend more than 5 miles beyond the Appendix B contour at any location. The calculated ERP level of 251 kW was determined to be the minimum needed in order to recover analog service in all azimuthal directions, based on use of the existing analog directional antenna pattern. However, as this ERP level would exceed the 5-mile extension limit, the ERP was reduced to 239 kW.

The predicted 48 dBu contour will encompass all of Pocatello. The Pocatello city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Population Served

The herein proposed KPIF-DT facility is predicted to serve 216,700 persons, post-transition, based upon the 2000 Census. KPIF-DT's associated Appendix B facility is predicted to serve 216,141 persons. Therefore, the herein proposed KPIF-DT facility would serve more than 100% of KPIF-DT's Appendix B population.

Allocation Considerations

Since the proposed KPIF-DT ERP exceeds the Commission's *Appendix B* allocated maximum effective radiated power in some azimuthal directions¹, an allocation study was completed to ensure no prohibited interference would occur. The proposed KPIF-DT operation meets the FCC's post-transition interference standards to pertinent Class A and DTV allotments using the procedures outlined in the FCC's OET-69 Bulletin and a 2 kilometer grid cell size. The results of the interference analyses are summarized in Figure 4.

¹ See Seventh Report And Order And Eighth Further Notice Of Proposed Rule Making in the Matter of Advanced Television Systems and their Impact Upon the Existing Television Broadcast Service, MB Docket 87-268, Released August 6, 2007; Adopted August 1, 2007.

Radiofrequency Electromagnetic Field Exposure

The proposed KPIF-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 80 meters above ground level with a maximum ERP of 239 kW. A conservative relative field value of 0.1 was assumed for the calculation (see Figure 2). The calculated power density at a point 2 meters above ground level will not exceed 0.014 mW/cm^2 . This is less than 5% of the FCC's recommended limit of 0.32 mW/cm^2 for channel 15 for an "uncontrolled" 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 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 station is at reduced power or shut down. The proposed KPIF-DT operation appears to be otherwise categorically excluded from environmental processing.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.



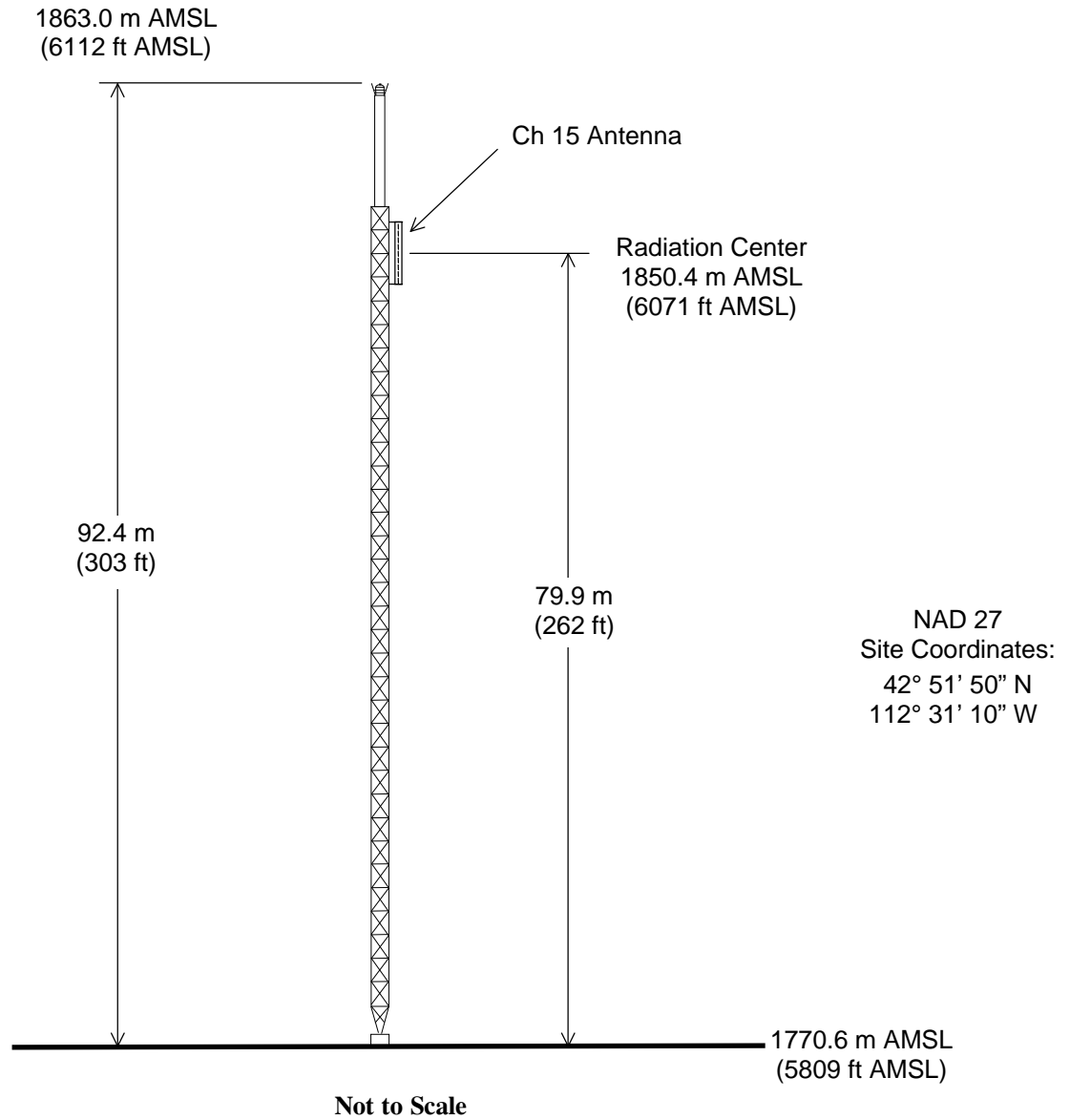
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March 20, 2008



Registration No. 1239956



ANTENNA AND SUPPORTING STRUCTURE

STATION KPIF-DT

POCATELLO, IDAHO

CH 15 239 KW (MAX-DA) 327 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Proposal Number	1158:6:204506	Revision:	3
Date	4-Sep-03		
Call Letters		Channel	15
Location	Pocatello, ID		
Customer			
Antenna Type	TFU-31JSC-R 3BP285		

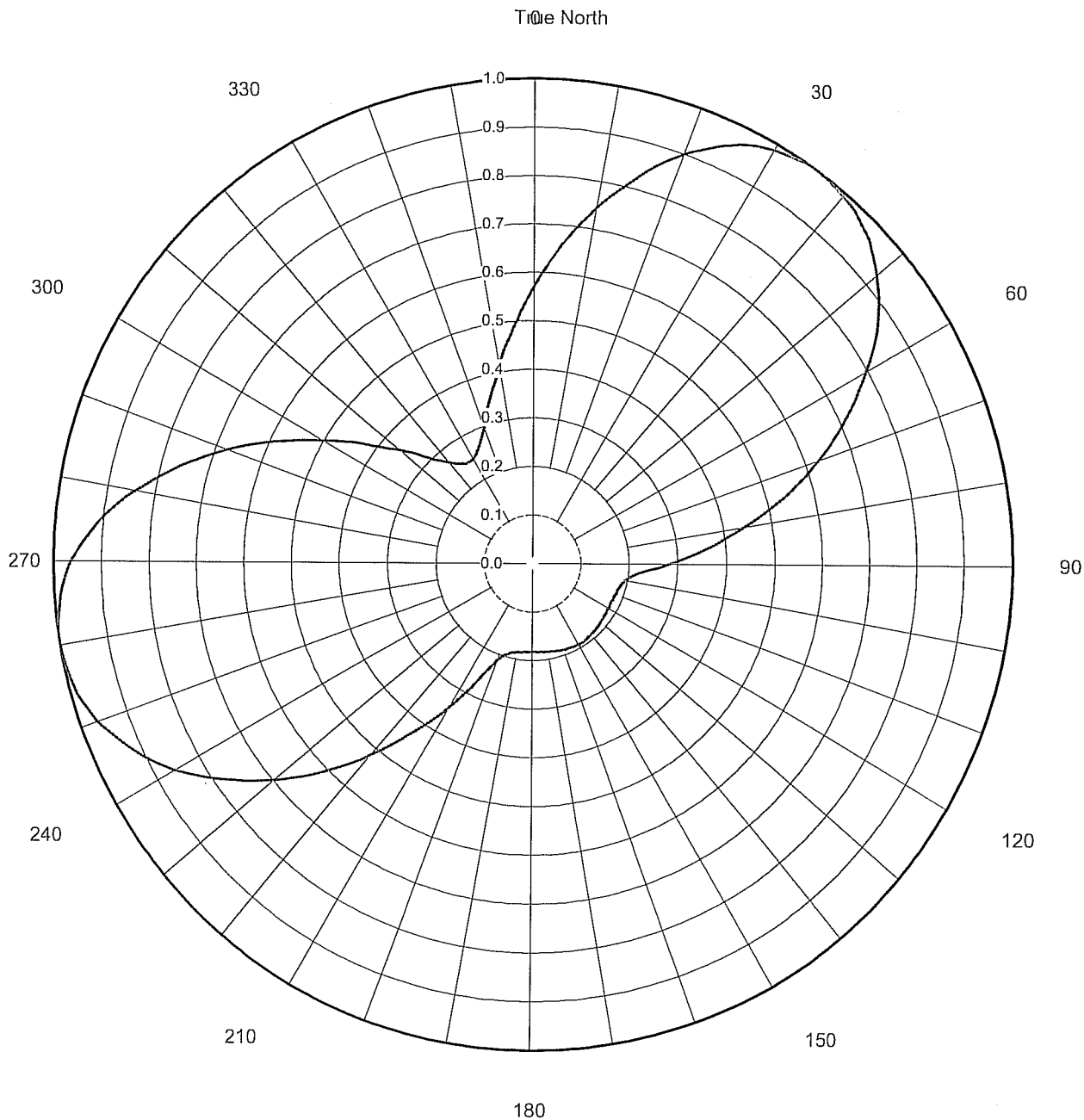
AZIMUTH PATTERN

Gain **2.85**
Calculated / Measured

(**4.55 dB**)
Calculated

Frequency
Drawing #

479.00 MHz
TFU-3BP285-15

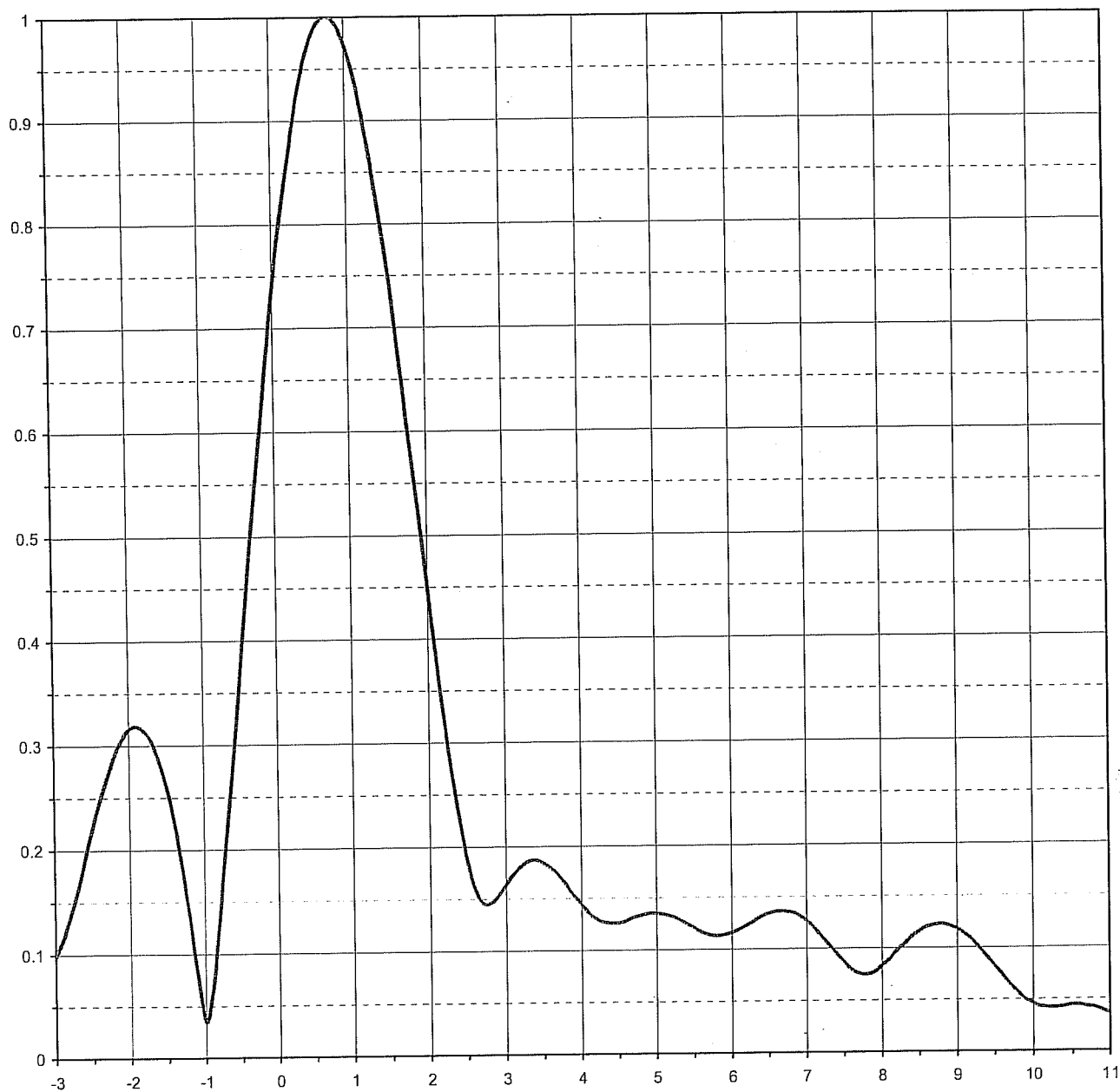




Proposal Number	1158:6:204506	Revision:	3
Date	4-Sep-03		
Call Letters		Channel	15
Location	Pocatello, ID		
Customer			
Antenna Type	TFU-31JSC-R 3BP285		

ELEVATION PATTERN

RMS Gain at Main Lobe	27.90 (14.46 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	15.10 (11.79 dB)	Frequency	479.00 MHz
Calculated / Measured	Calculated	Drawing #	31Y279075



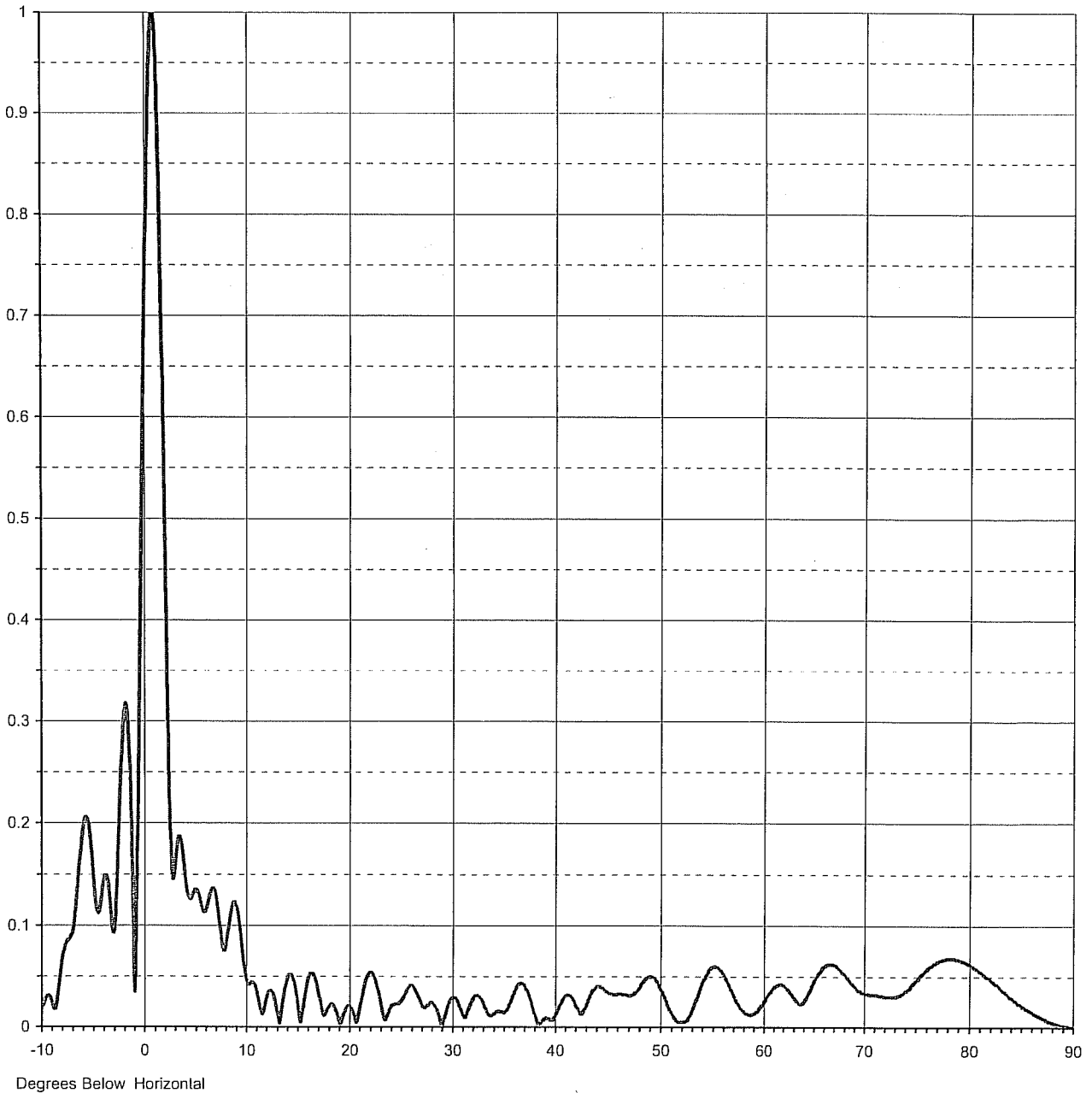
Degrees Below Horizontal



Proposal Number 1158:6:204506 Revision: 3
Date 4-Sep-03
Call Letters Channel 15
Location Pocatello, ID
Customer
Antenna Type TFU-31JSC-R 3BP285

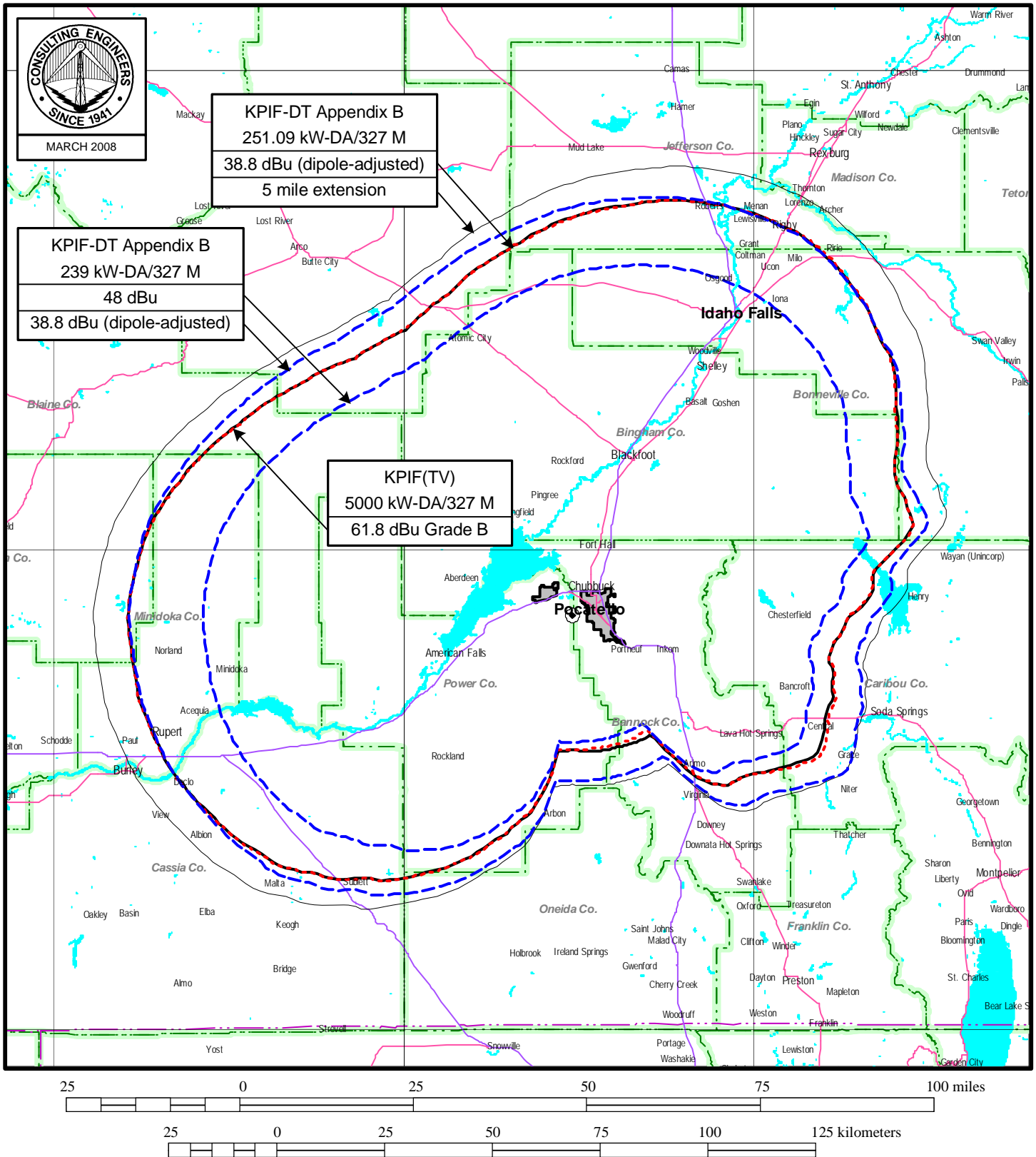
ELEVATION PATTERN

RMS Gain at Main Lobe	27.90 (14.46 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	15.10 (11.79 dB)	Frequency	479.00 MHz
Calculated / Measured	Calculated	Drawing #	31Y279075-90



Degrees Below Horizontal

Figure 3



PREDICTED COVERAGE CONTOURS

STATION KPIF-DT

POCATELLO, IDAHO

CH 15 239 kW (MAX-DA) 327

du Treil, Lundin & Rackley, Inc Sarasota, Florida

Census data selected 2000

Post Transition Data Base Selected
/export/home/cdbs/tvdb.sff_G
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 03-20-2008 Time: 17:30:43
Record Selected for Analysis

KPIF USERRECORD-01 POCATELLO ID US
Channel 15 ERP 239. kW HAAT 340. m RCAMSL 01850 m
Latitude 042-51-50 Longitude 0112-31-10
Status APP Zone 2 Border
Dir Antenna Make CDB Model 00000000064339 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side
Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	77.651	488.5	90.6
45.0	220.492	409.1	93.6
90.0	19.006	267.4	66.9
135.0	8.447	195.7	58.1
180.0	7.830	33.0	37.3
225.0	88.059	360.5	83.5
270.0	221.641	477.7	98.3
315.0	23.790	487.6	82.1

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations
Proposed facility OK toward West Virginia quite zone
Proposed facility OK toward Table Mountain
Proposed facility is beyond the Canadian coordination distance
Proposed facility is beyond the Mexican coordination distance
Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
15	KPIF	POCATELLO ID	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
15	KPIF	POCATELLO ID	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
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Total scenarios = 1

Result key: 1
Scenario 1 Affected station 1
Before Analysis

Results for: 15A ID POCATELLO USERRECORD01 APP

HAAT 340.0 m, ATV ERP 239.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	221472	21237.1
not affected by terrain losses	216700	17156.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

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