September 2013
FM Translator K262AU
Coos Bay, Oregon Channel 262D
Allocation Study

This application is being filed solely to change the antenna model which will be used for this facility. Operation with 150 watts omnidirectional was previously approved in BPFT-20121214ADV using a Shively antenna. This application proposes operation with an ERI antenna, but with no change in the other technical specifications.

The attached spacing study shows the spacing between the proposed translator site and the location of cochannel and adjacent channel stations and proposals. This study was made with the Commission's Class A spacing requirements, and individual situations were examined to determine the lack of prohibited contour overlap per the requirements of §74.1204 of the Rules. The attached allocation study maps demonstrate compliance with the Commission's Rules for protection of FM broadcast stations and FM translators as outlined in §74.1204.

While K262AU operates with 150 watts ERP and is short-spaced to IF channel station KDCB 208A Coos Bay, that situation arose because K262AU was authorized at this transmitter site in 2004 (see BMPFT-20040812ABJ and BLFT-20041208AAY), whereas KDCB was not authorized until 2010 (see BNPED-20071019AZK). The instant application proposes a change to a non-directional antenna at the current power level, while also making a correction to the transmitter site coordinates to match a recent correction of the Antenna Structure Registration for this tower. This is believed to satisfy protection requirements with respect to KDCB.

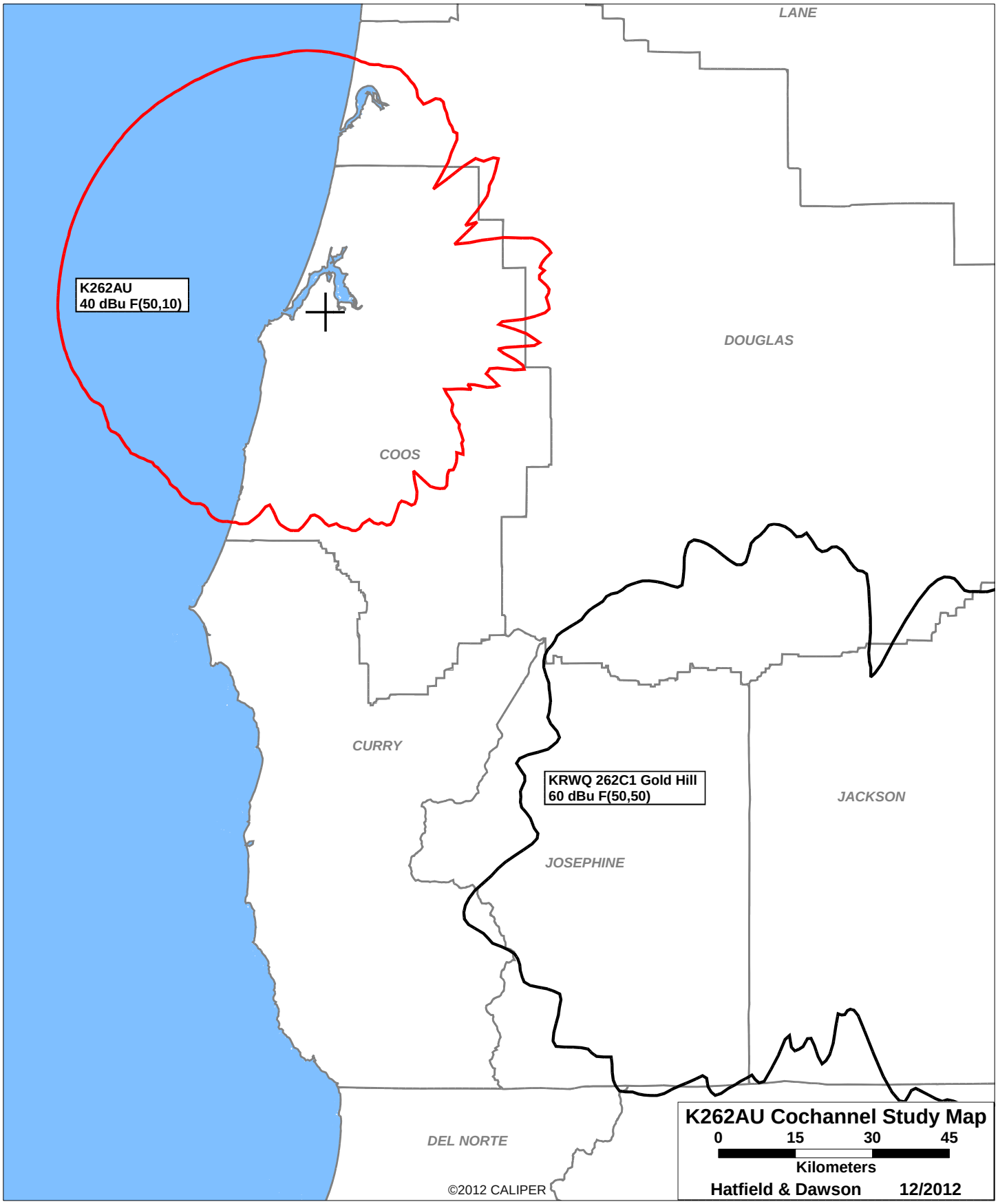
FMSTUDY.EXE Copyright 2008, Hatfield & Dawson, LLC Version 1.80

SEARCH PARAMETERS FM Database Date: 130829

Channel: 262A 100.3 MHz
Latitude: 43 21 16
Longitude: 124 14 30
Safety Zone: 50 km
Job Title: K262AU COOS BAY

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)		Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KDCB	COOS BAY	208A	0.055			43-21-16	0.0	0.00	10
LIC	OR	BLED-20912ABP	89.5	148.0		124-14-30		-10.00	SHORT
K261DL	BANDON	261D	0.010			42-57-32	183.3	44.02	0
LIC	OR	BLFT-50623ABP	100.1	592.0		124-16-23		0.00	TRANS
K261BF	BLACK BUTTE, ETC.	261D	0.208		DA	43-22-10	88.6	95.38	0
LIC	OR	BLFT-841019TG	100.1	1068.0		123-03-55		0.00	TRANS
K262AU	COOS BAY	262D	0.150			43-21-16	0.0	0.00	0
CP	OR	BPFT-21214ADV	100.3	196.0		124-14-30		0.00	TRANS
K262AU	EMPIRE	262D	0.150		DA	43-21-15	251.0	0.10	0
LIC	OR	BLFT-41208AAY	100.3	196.0		124-14-34		0.00	TRANS
KRWQaux	GOLD HILL	262C1	1.250			42-27-11	135.7	139.29	0
LIC	OR	BXLH-70503ABE	100.3	289.0		123-03-22		0.00	AUX
KRWQ	GOLD HILL	262C1	30.000			42-27-11	135.7	139.29	200
LIC	OR	BLH-70614AAN	100.3	306.0		123-03-22		-60.71	SHORT
KKRZaux	PORTLAND	262C	40.000			45-31-21	25.7	268.73	0
LIC	OR	BXLH-30617ABD	100.3	409.0		122-44-46		0.00	AUX
KKRZ	PORTLAND	262C	100.000			45-31-21	25.7	268.74	226
LIC	OR	BLH-11214AAE	100.3	470.0		122-44-45		42.74	CLEAR
KMME	COTTAGE GROVE	263C3	10.500			43-45-40	64.6	107.44	89
LIC	OR	BMLED-10520ABF	100.5	154.0		123-02-07	SS	18.44	CLEAR
KLYF-LP	COQUILLE	264L1	0.100			43-11-01	173.6	19.10	29
LIC	OR	BLL-31016ABW	100.7	-1.2		124-12-55		-9.90	SHORT
NEW-T	ROSEBURG	264D	0.250			43-12-24	102.7	73.18	0
APP	OR	BNPFT-30310AIE	100.7	193.0		123-21-47		0.00	TRANS
K265AB	FLORENCE	265D	0.240			43-57-26	11.3	68.33	0
LIC	OR	BLFT-70720AAI	100.9	253.0		124-04-26		0.00	TRANS
	SUTHERLIN	265C3	0.000			43-22-19	88.1	71.97	42
ADD	OR	RM-inv-37	100.9	0.0		123-21-15		29.97	CLEAR

==== END OF FM SPACING STUDY FOR CHANNEL 262 ====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DOUGLAS
COOS
CURRY
KRWQ 262C1 Gold Hill
60 dBu F(50,50)
JACKSON
JOSEPHINE
DEL NORTE
©2012 CALIPER
K262AU Cochannel Study Map
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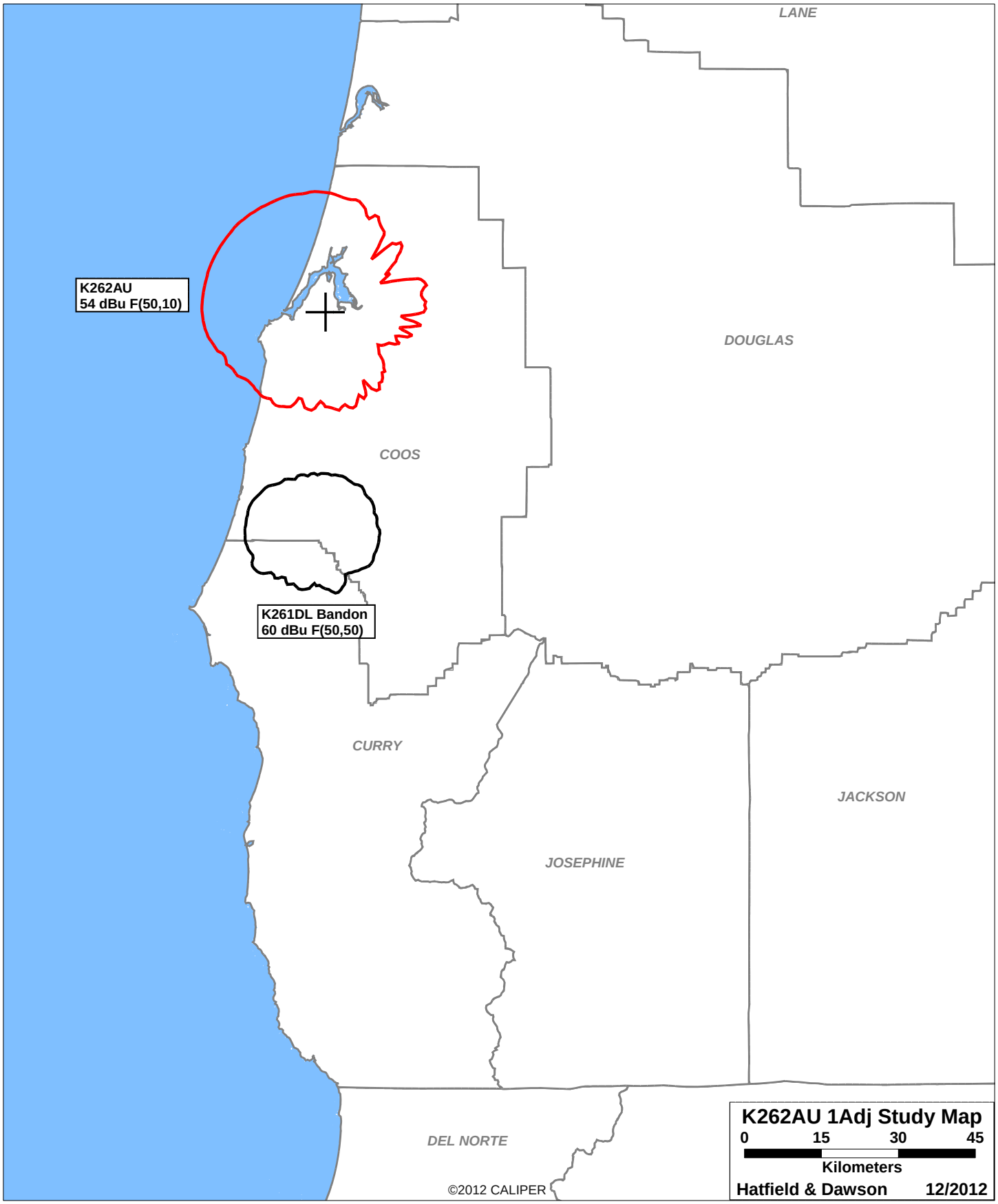
Kilometers
Hatfield & Dawson 12/2012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K262AU 1Adj Study Map
0 15 30 45
Kilometers
Hatfield & Dawson 12/2012

September 2013
FM Translator K262AU
Coos Bay, Oregon Channel 262D
RF Exposure Study

Facilities Proposed
The proposed operation will be on Channel 262D (100.3 MHz) with an effective radiated power of 150 watts. Operation is proposed with an antenna to be mounted on an existing tower on Blossom Hill. The FCC Antenna Structure Registration Number for the proposed tower is 1027927.

The proposed antenna support structure will not exceed 60.96 meters (200 feet) above grou

RF Exposure Calculations
OET Bulletin 65 Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (Edition 97-01) states in part that:

> When performing an evaluation for compliance with the FCC's RF guidelines all significant contributors to the ambient RF environment should be considered. . .For purposes of such consideration, significance can be taken to mean any transmitter producing more than 5% of the applicable exposure limit (in terms of power density or the square of the electric or magnetic field strength) at accessible locations.

As will be demonstrated below, the proposed operation of K262AU will produce less than 5% of the applicable exposure limit for both controlled and uncontrolled environments. Thus, the proposed facility is categorically excluded from the requirement of further study. Therefore, pursuant to §1.1307(b)(3) of the Commission's Rules no calculations are required for the other FM and TV facilities in the vicinity, and precise calculations are made only with regard to the levels from this proposal.

The power density calculations shown below were made using the techniques outlined in OET Bulletin No. 65. "Ground level" calculations in this report have been made at a reference height of 2 meters above ground to provide a worst-case estimate of exposure for persons standing on the ground in the vicinity of the tower. The equation shown below was used to calculate the ground level power density figures from each antenna.

$$S(\mu W / cm^2) = \frac{33.40981 \times AdjERP(Watts)}{D^2}$$

Where: *AdjERP(Watts)* is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

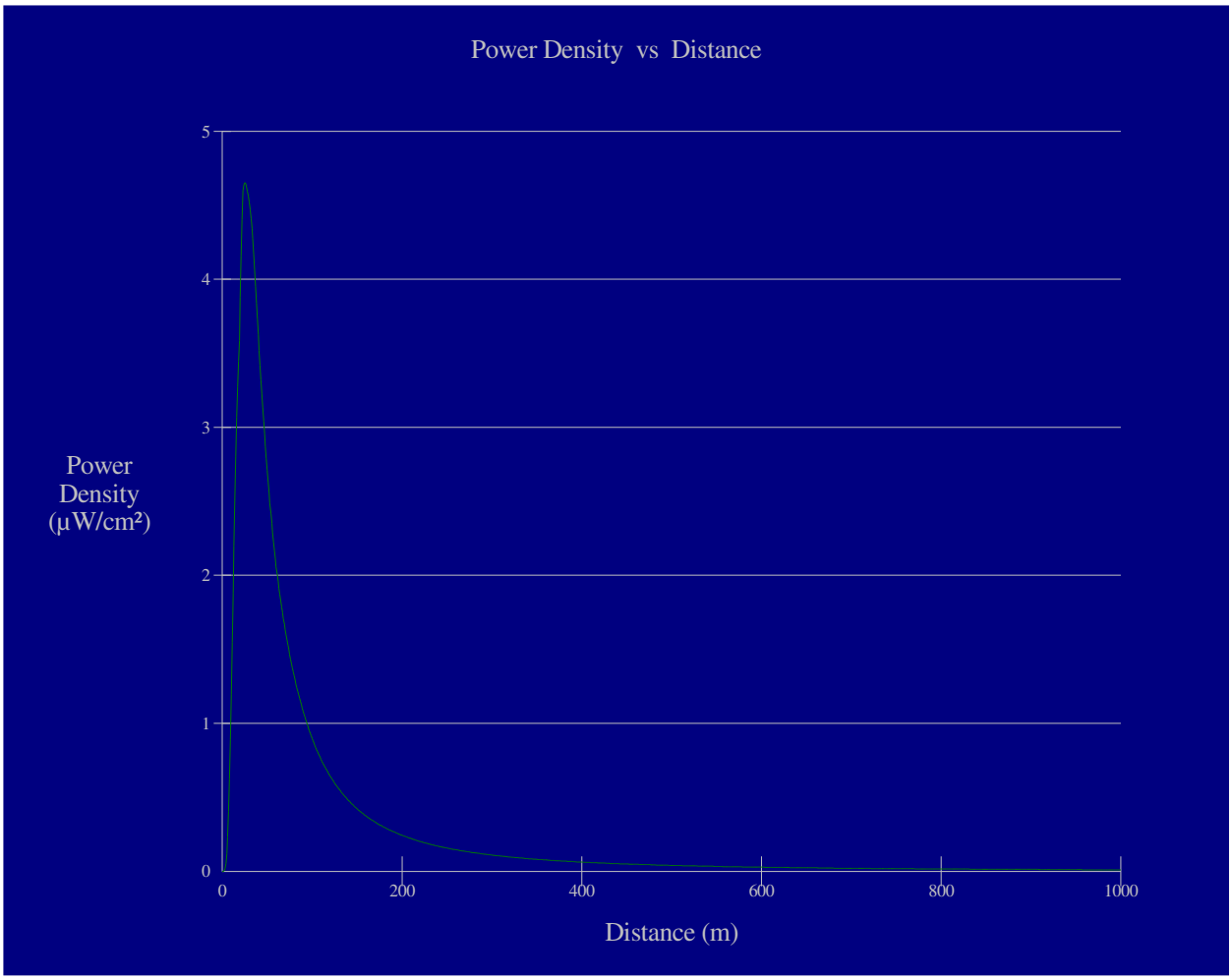
D is the distance in meters from the center of radiation to the calculation point.

Ground level power densities have been calculated for locations extending from the base of the tower to a distance of 1000 meters. Values past this point are increasingly negligible.

Calculations of the power density produced by the K262AU antenna system have been made using the appropriate element model for the ERI CP-22 antenna to be used. The highest calculated ground level power density from K262AU occurs at a distance of 25 meters from the base of the antenna support structure. At this point the power density is calculated to be 4.7 $\mu W/cm^2$, which is 0.5% of 1000 $\mu W/cm^2$ (the FCC standard for controlled environments) and 2.4% of 200 $\mu W/cm^2$ (the FCC standard for uncontrolled environments).

These calculations show that the maximum calculated power density produced at two meters above ground level by the proposed operation of K262AU alone is less than 5% of the applicable FCC exposure limit at all locations between 1 and 1000 meters from the base of the antenna support structure. Section 1.1307(b)(3) of the Commission's Rules excludes applications for new facilities or modifications to existing facilities from the requirement of preparing an environmental assessment when the calculated emissions from the applicants proposed facility are predicted to be less than 5% of the applicable FCC exposure limit. Therefore, the proposed facility is in compliance with Section 1.1301 *et seq* and no further analysis of RF exposure at this site is required in this application.

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of FCC guidelines.



Ground-Level RF Exposure **OET FMModel**

K262AU Coos Bay

Antenna Type:	ERI CP-22 (ring stub element model used)
No. of Elements:	2
Element Spacing:	0.5 wavelength
Distance:	1000 meters
Horizontal ERP:	150 W
Vertical ERP:	150 W
Antenna Height:	18 meters AGL

Maximum Calculated Power Density is 4.7 µW/cm^2 at 25 meters from the antenna structure.