

Exhibit 29

KDRK-FM NIER Analysis

The proposed operation will be on Channel 229C (93.7 MHz) with an effective radiated power of 64 kilowatts at 1.5 degrees of electrical beam tilt. ERP in the horizontal plane will be 60 kW. Operation is proposed with a 6-element circularly-polarized omni-directional antenna with 0.9 wavelength spacing between the bays. The antenna will be side-mounted on a uniform cross-section guyed tower located at the Mica Point communications site.

The antenna support structure does not exceed 60.96 meters (200 feet) above ground and does not require notification to the Federal Aviation Administration. Therefore, this structure does not require an Antenna Structure Registration Number.

NIER Calculations

In addition to KDRK, the following broadcast facilities are also located at the Mica Point communications site: KPBX 216C Spokane, KNFR 241C Opportunity, KCDA 276C1, and KMBI 300C Spokane. This is a controlled-access site.

The power density calculations shown below were made using the techniques outlined in the EPA report titled: *An Engineering Assessment of the Potential Impact of Federal Radiation Protection Guidance on the AM, FM, and TV Broadcast Services* (Gailey & Tell, April, 1985). All calculations contained herein are based on the measured element patterns for the antenna, and follow the procedure shown in the Gailey and Tell report. The patterns were identified by applying the procedure outlined in the report to the measurement data contained in the report titled: *Element Pattern Measurements on FM Antennas* (EPA-520/ 6-85-107, June 1985).

"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. Equation #1, contained in the Gailey & Tell report and shown below, was used to calculate the ground level power density figures from each antenna at incremental distances from the base of its supporting tower.

$$S(\text{FW/cm}^2) = \frac{(\text{Adjusted ERP in Watts}) \times 1.64 \times 2.56 \times 100}{4 \times B \times (\text{Distance})^2}$$

Where: Adjusted ERP in Watts is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

Distance = 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 KDRK antenna system assume a Type 6 element pattern, which is the element pattern for the Shively antenna proposed for use. The highest calculated ground level power density occurs at a distance of 10 meters from the base of the antenna support structure. At this point the power density is calculated to be 156.9 FW/cm².

Calculations of the power density produced by the KPBX antenna system assume a Type 3 element pattern, which is the element pattern for the ERI antenna used by that station. The highest calculated ground level power density occurs at a distance of 5 meters from the base of the antenna support structure. At this point the power density is calculated to be 1130.4 FW/cm².

Calculations of the power density produced by the KNFR antenna system assume a Type 3 element pattern, which is the element pattern for the ERI antenna used by that station. The highest calculated ground level power density occurs at a distance of 4 meters from the base of the antenna support structure. At this point the power density is calculated to be 1723.6 FW/cm².

Calculations of the power density produced by the KCDA antenna system assume a Type 3 element pattern, which is the element pattern for the ERI antenna used by that station. The highest calculated ground level power density occurs at a distance of 15 meters from the base of the antenna support structure. At this point the power density is calculated to be 170.2 FW/cm².

Calculations of the power density produced by the KMBI antenna system assume a Type 6 element pattern, which is the element pattern for the Shively antenna used by that station. The highest calculated ground level power density occurs at a distance of 6 meters from the base of the antenna support structure. At this point the power density is calculated to be 839.4 FW/cm².

The Mica Point communications site is remote and inaccessible to the general public, located in rugged terrain far removed from any populated areas. Casual access to the site is restricted by the site's remote location, and by two sets of locked gates across the gravel access road. Access to the tower site itself is further restricted by an 8-foot high fence with a locked gate. The site and antenna tower are posted with warning signs. Pursuant to OET Bulletin No. 65, all station personnel and contractors are required to follow appropriate safety procedures before any work is commenced on the antenna tower, including reduction in power or discontinuance of operation before any maintenance work is undertaken.

The users of the site have an agreement in force to 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.

On-Site Measurements

On November 2, 2000, radiofrequency power density measurements at the Mica Point communications site were made by Stephen S. Lockwood, P.E. These measurements were made in support of KDRK's application for modification of license (FCC File No. BMLH-20001107AAD), the purpose of which was to cover the installation of the 0.9 wavelength-spaced Shively antenna specified herein. A copy of the resulting report is attached.

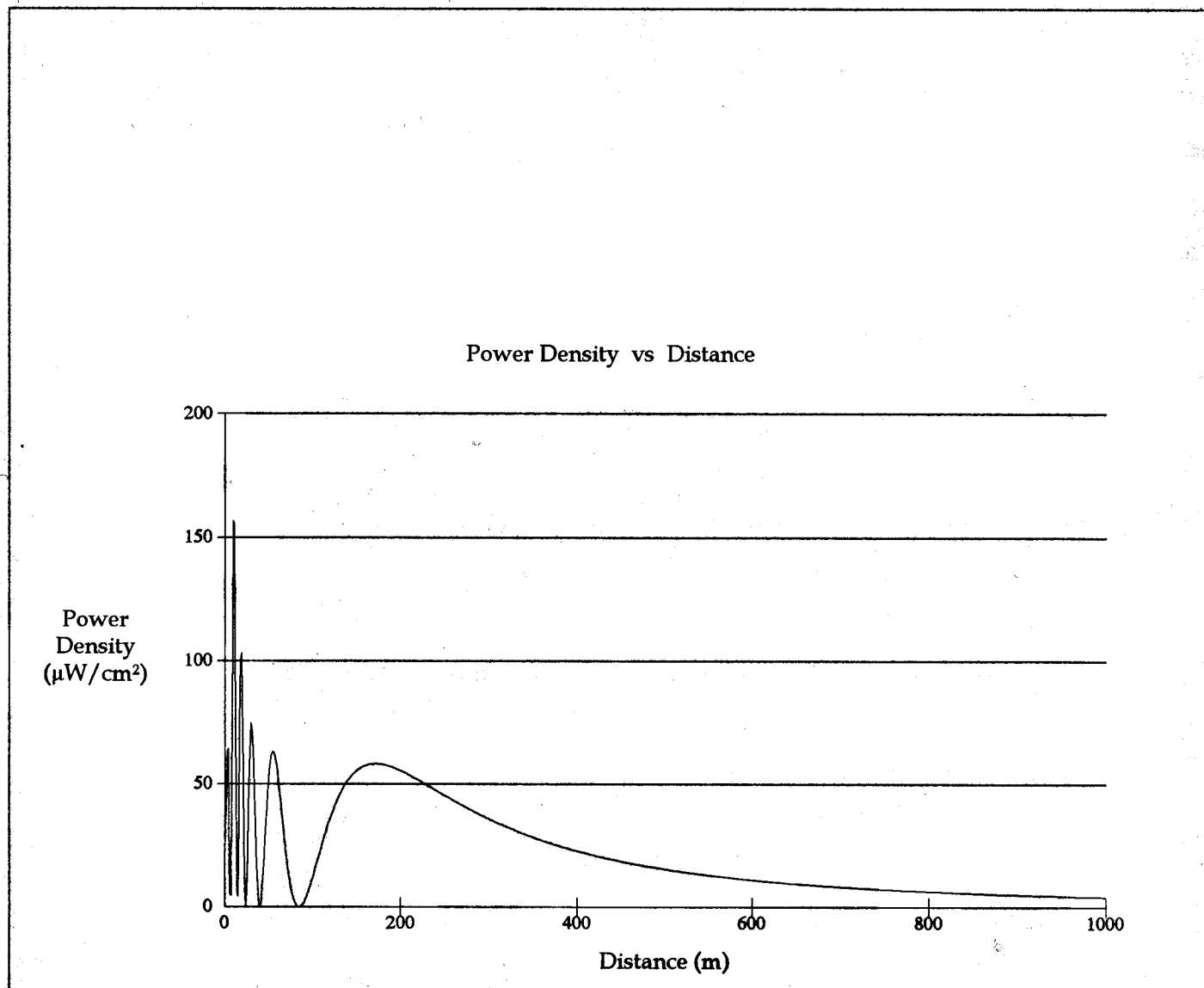
Those measurements indicated that there was one location (15 feet north of the KNFR/KCDA tower) where the measured field was 150.7% of the Maximum Permissible Exposure (MPE) for controlled environments. All other locations were less than 51% of the MPE for controlled environments.

The purpose of the instant application is to correct the site coordinate and height data for the KDRK facility, while increasing ERP from 56 kW to 64 kW. This nominal power increase will not have a significant impact upon the actual fields at this site. The location where the measured field was 150.7% of the MPE for controlled environments will continue to be above the MPE for controlled environments, albeit slightly higher. That location is now posted with the appropriate warning sign.

Furthermore, the rest of the site (no part of which exceeded 51% of the MPE for controlled environments) will see a slight increase, but will remain below the MPE for controlled environments. Indeed, even assuming that KDRK were the only contributor at this site, the 14% increase in ERP and resultant 14% increase in predicted field would, worst-case, increase the rest of the site to no more than 65% of the MPE for controlled environments. Since KDRK is not the single contributor

to the measured fields described in the attached report, the actual increase in fields resulting from the KDRK power increase would be far less.

Based on the foregoing, it is not believed that a new set of on-site power density measurements should be required in order to implement the power increase requested by the instant application.



Ground-Level NIER Analysis

OET FMModel

KDRK(FM) Spokane, WA

Antenna Type: Shively 6810-6R-(0.9)SS

Number of Elements: 6

Element Spacing: 0.9 wavelength

Distance: 1000 meters

Horizontal ERP: 64 kW

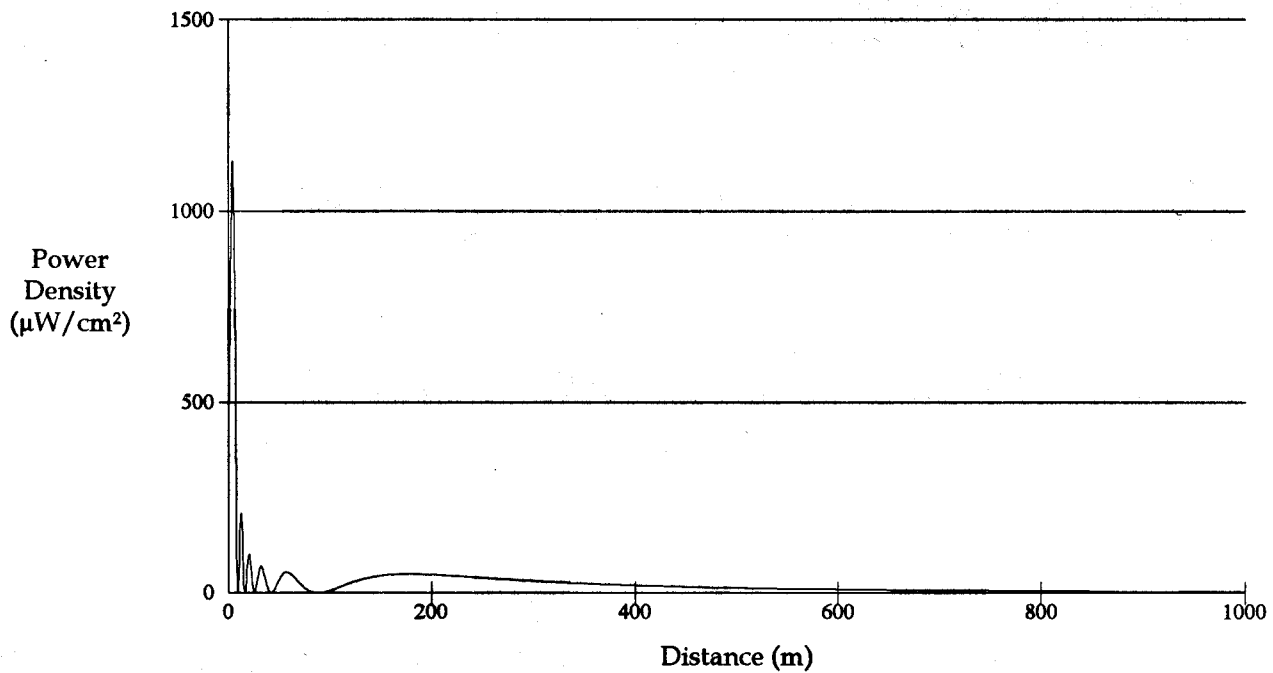
Vertical ERP: 64 kW

Antenna Height: 18 meters AGL

Maximum Power Density is $156.9 \mu\text{W}/\text{cm}^2$ at 10 meters from the antenna structure.

Hatfield & Dawson Consulting Engineers

Power Density vs Distance



Ground-Level NIER Analysis

OET FMModel

KPBX(FM) Spokane, WA

Antenna Type: ERI "Rototiller"
Number of Elements: 6
Element Spacing: 1.0 wavelength

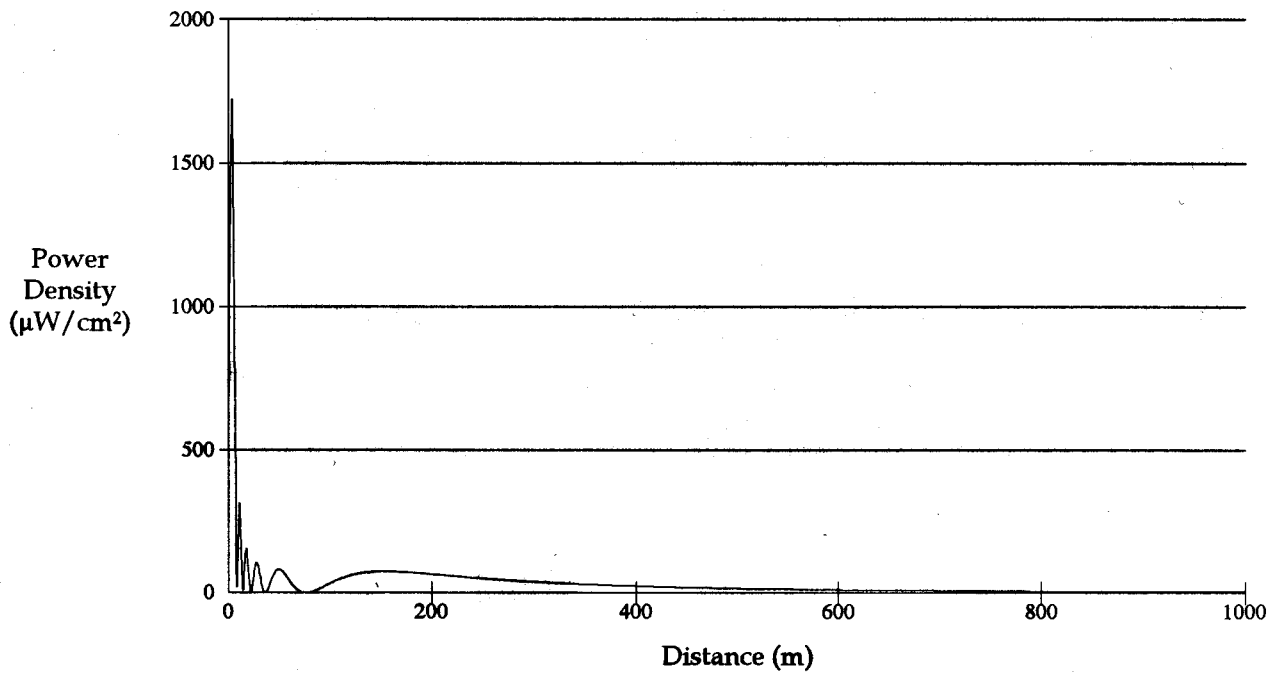
Distance: 1000 meters
Horizontal ERP: 56 kW
Vertical ERP: 56 kW

Antenna Height: 17 meters AGL

Maximum Power Density is $1130.4 \mu\text{W}/\text{cm}^2$ at 5 meters from the antenna structure.

Hatfield & Dawson Consulting Engineers

Power Density vs Distance



Ground-Level NIER Analysis

OET FMModel

KNFR(FM) Opportunity, WA

Antenna Type: ERI "Rototiller"
Number of Elements: 6
Element Spacing: 1.0 wavelength

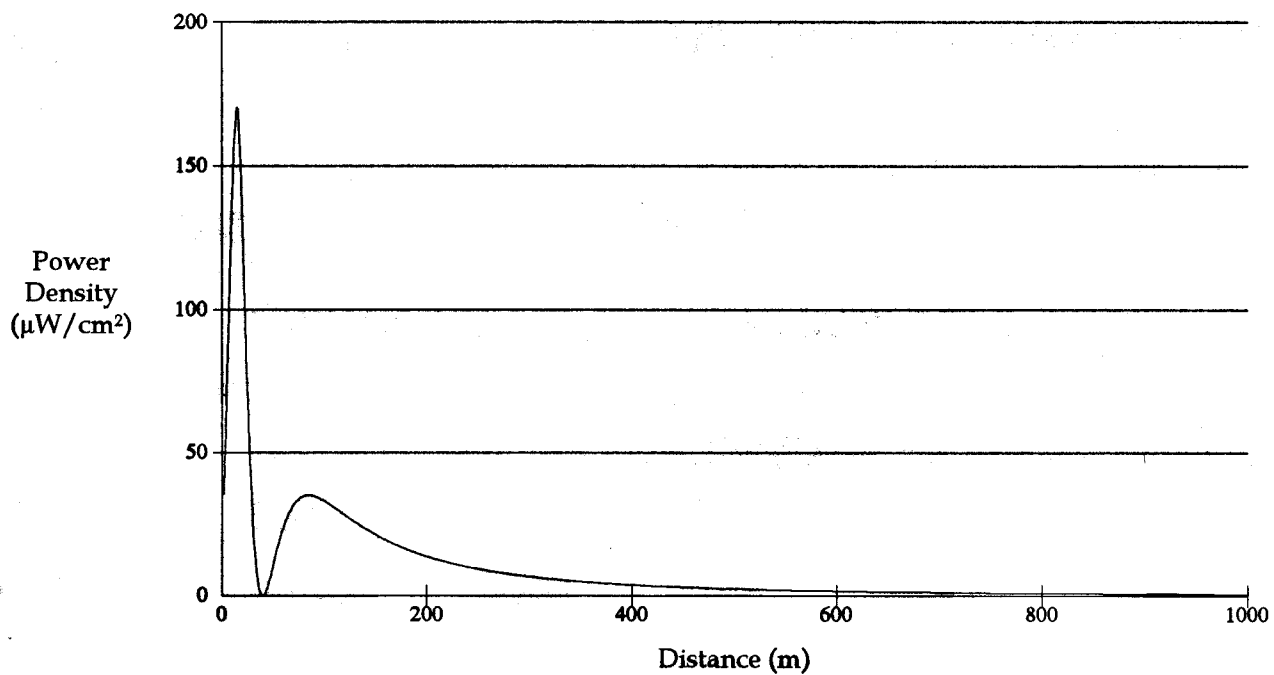
Distance: 1000 meters
Horizontal ERP: 64 kW
Vertical ERP: 64 kW

Antenna Height: 15 meters AGL

Maximum Power Density is $1723.6 \mu\text{W}/\text{cm}^2$ at 4 meters from the antenna structure.

Hatfield & Dawson Consulting Engineers

Power Density vs Distance



Ground-Level NIER Analysis

OET FMModel

KCDA(FM) Post Falls, ID

Antenna Type: ERI "rototiller"
Number of Elements: 2
Element Spacing: 1.0 wavelength

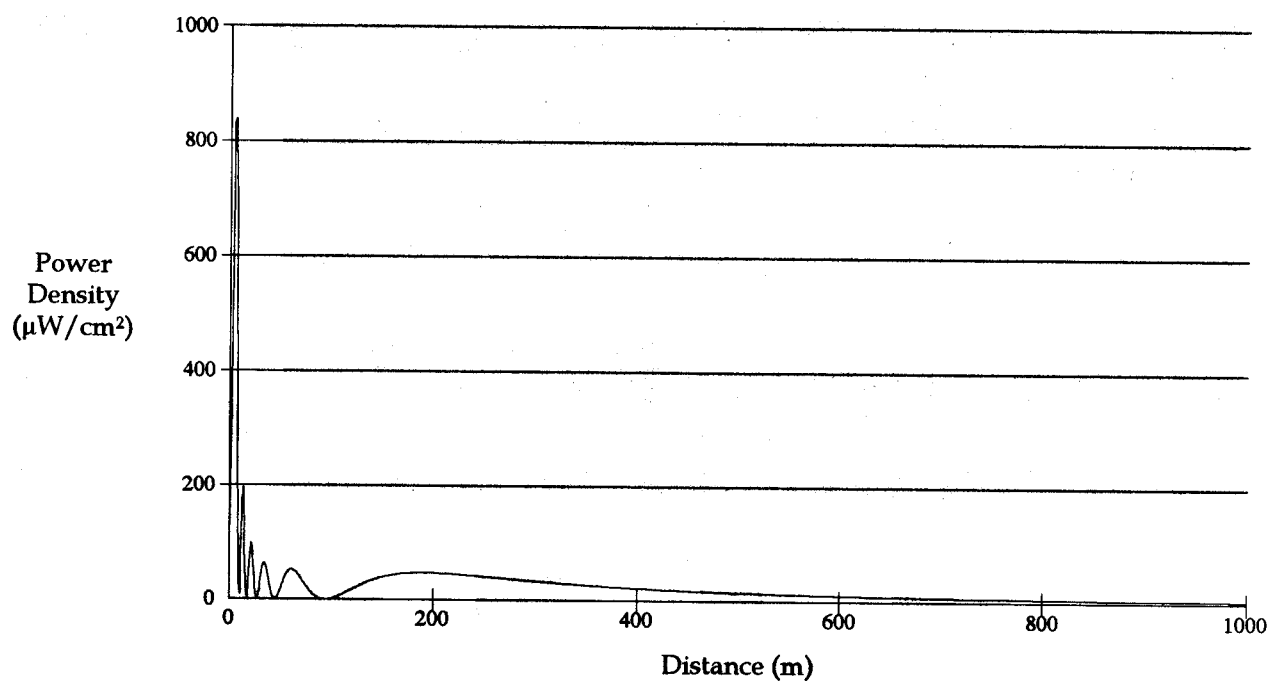
Distance: 1000 meters
Horizontal ERP: 9.4 kW
Vertical ERP: 9.4 kW

Antenna Height: 25 meters AGL

Maximum Power Density is 170.2 $\mu\text{W}/\text{cm}^2$ at 15 meters from the antenna structure.

Hatfield & Dawson Consulting Engineers

Power Density vs Distance



Ground-Level NIER Analysis

OET FMModel

KMBI(FM) Spokane, WA

Antenna Type: Shively 6800 Series

Number of Elements: 6

Element Spacing: 1.0 wavelength

Distance: 1000 meters

Horizontal ERP: 64 kW

Vertical ERP: 64 kW

Antenna Height: 18 meters AGL

Maximum Power Density is 839.4 $\mu\text{W}/\text{cm}^2$ at 6 meters from the antenna structure.

Hatfield & Dawson Consulting Engineers

FILE COPY

JAMES B. HATFIELD, PE
BENJAMIN F. DAWSON III, PE
THOMAS M. ECKELS, PE
STEPHEN S. LOCKWOOD, PE
DAVID J. PINION, PE
PAUL W. LEONARD, PE
ERIK C. SWANSON
THOMAS S. GORTON

HATFIELD & DAWSON
CONSULTING ELECTRICAL ENGINEERS
9500 GREENWOOD AVE. N.
SEATTLE, WASHINGTON 98103

TELEPHONE
(206) 783-9151
FACSIMILE
(206) 789-9834
E-MAIL
hatdaw@hatdaw.com
MAURY L. HATFIELD, PE
CONSULTANT
Box 1326
ALICE SPRINGS, NT 5950
AUSTRALIA

ELECTROMAGNETIC FIELD MEASUREMENTS
AT MICA POINT FM TRANSMITTER SITE
SPOKANE, WASHINGTON

CITADEL BROADCASTING COMPANY

3 November 2000

INTRODUCTION

On 2 November 2000 radiofrequency power density measurements were made around the FM transmitting facility atop Mica Point near Spokane, Washington. The measurements were made between the hours of 11:30 AM and 12:30 P.M. All four FM transmitters were observed to operate at 100% of licensed power as the measurements were made.

MEASUREMENT PROCEDURES

Measurement procedures outlined in **OET BULLETIN 65, (EDITION 97-01)**, [OET 65] **"Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields"**, **ANSI/IEEE Std C95.3-1991, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields--RF and Microwave**, and **NCRP Report No. 119, "A Practical Guide to the Determination of Human Exposure to Radiofrequency Fields"** were used for the measurements taken at perimeter of the KDRK-FM site. Spatially averaged measurements were made at the points where the highest fields were found.

According to the ANSI C95.3 guidelines (reaffirmed in OET 65) measurements to determine exposure compliance are to be made at distances 20 cm or greater from any object. This is to assure that the measurements are not contaminated by re-radiation from conductive objects.

METER AND PROBE

A NARDA Model 8718B Electromagnetic Radiation Survey Meter with a NARDA Model 8742 Isotropic Shaped Electric Field Probe was used to make the measurements. The meter was calibrated July 2000 by the manufacturer. The NARDA 8742D probe provides an output proportional to **CFR 47 §1.1310 Radiofrequency Radiation Exposure Limits**

Hatfield & Dawson Consulting Engineers

(Occupational/Controlled Environment) maximum permissible exposure (MPE) over a frequency range from 300 kHz to 2.7 GHz. The isotropic response of the NARDA 8742 probe is $\pm 0.75\text{dB}$.

The NARDA Model 8718B Electromagnetic Radiation Survey Meter allows for accurate and repeatable spatially averaged measurements through the use of its time averaging feature. A single key stroke implements the meter's time averaging function as the probe is swept through an area that approximates that of the human body. Spatial peak fields are also stored by the meter during the spatially averaged measurement.

The NARDA diode probes, such as the Model 8742, are designed to provide signal detection on a square law basis and yields accurate readings of fields from multiple fields. Other available measurement devices, such as those manufactured by Holaday and Wandel & Golterman, use linear detection and square the signals after adding. If there are two signals of roughly equal intensity, $E_1 + E_2$ the desired summation is $(E_1)^2 + (E_2)^2$. The result obtained by squaring the signals after addition is $(E_1)^2 + (E_1)(E_2) + (E_2)^2$. The $(E_1)(E_2)$ term results in a measurement error. For this reason the most accurate measurements of RF fields using diode detection are provided by use of probes such as the NARDA 8742D probe that utilize square law detection. Diode probe errors are also discussed in "*Multiple-Source, Multiple Frequency Error of an Electric Field Meter*" (Randa and Kanda).

MEASURED FIELDS

The measured fields around the FM transmitter site are shown in the following tables and map. The measured field at each location is shown as the spatially averaged fields and is shown as a percentage of the FCC Controlled Environment MPE. The highest measured field was found approximately 15 feet north of the KNFR & KCDA tower. The field at this location is 150.7% of the Controlled MPE. This area should be posted with a sign stating:

At this point the radiofrequency fields exceed the FCC guidelines for human exposure. Do not stay in this area for more than 4 minutes.

Hatfield & Dawson Consulting Engineers

All other areas within the fenced area are below the FCC Occupational/Controlled Environment MPE. Publicly accessible area outside the fence associated with this transmitting facility are at or below the FCC General Public MPE.

Location	Percent of FCC Occupational/Controlled Environment MPE ¹
15 feet north of KNFR & KCDA tower	150.7%
North of KNFR & KCDH tower by fence	14.8%
By west power meter	11.6%
By east power meter	14.2%
By power pole	8.5%
Gate	11.8%
~20 feet south of gate	38.1%
In parking area by stairs to building	20.3%
In parking area south of KDRK tower	19.5%
South of 40 foot container by fence	9.8%
North of 40 foot container	20.0%
West of KNFR & KCDA tower	50.2%

No locations were found outside the demarked area where the spatially averaged measured power densities exceeded the FCC MPE for the general public.

This site is located on a remote mountain top accessible only by a gravel road and two sets of locked gates. The site is posted with the appropriate warning signs. All station personnel and contractors are required to follow safety procedures before any work is commenced on the site.

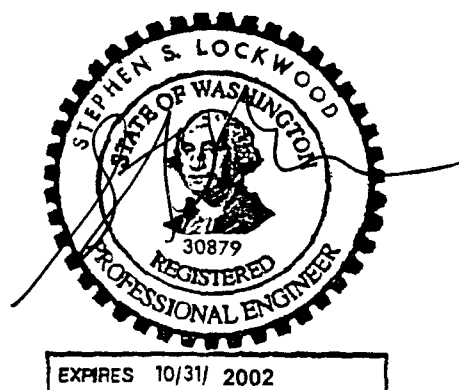
¹According to **CFR 47 §1.1310 Radiofrequency Radiation Exposure Limits** the General Population/Uncontrolled Environment MPE is 20% of Occupational/Controlled Environment MPE

STATEMENT OF ENGINEER

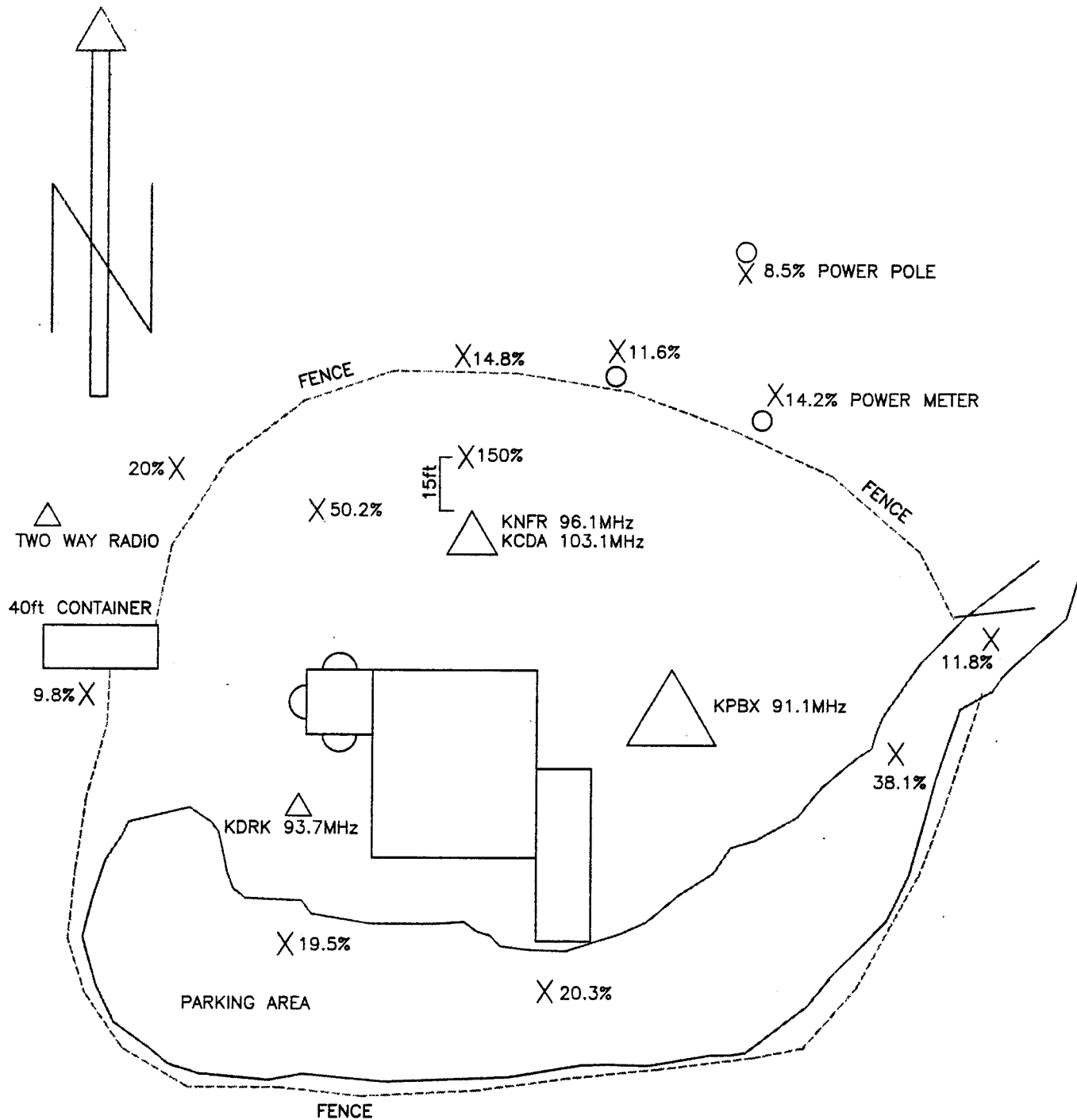
This Engineering Report regarding radiofrequency field measurements around the Mica Point FM transmitter site has been prepared by myself or under my direct supervision. All representations contained herein are true to the best of my knowledge. I am an experienced radio engineer whose qualifications are a matter of record with the Federal Communications Commission. I am a partner in the firm of Hatfield and Dawson Consulting Engineers and am Registered as a Professional Engineer in the States of Washington and Alaska.

Stephen S. Lockwood, P.E.

3 November 2000



Hatfield & Dawson Consulting Engineers



ALL VALUES ARE PERCENTAGE OF
FCC OCCUPATIONAL-CONTROLLED EXPOSURES
(CFR 47 sec 1.1310 RADIO FREQUENCY RADIATION EXPOSURE LIMITS)

HATFIELD & DAWSON
CONSULTING ENGINEERS

MICA POINT FM TRANSMITTER SITE
MEASUREMENTS TAKEN NOVEMBER 2, 2000 11:30AM - 12:30PM

KDRK(FM)

CITADEL BROADCASTING COMPANY

11/2000