

WOMBLE
CARLYLE
SANDRIDGE

& RICE

A PROFESSIONAL LIMITED
LIABILITY COMPANY

1401 Eye Street, NW
Seventh Floor
Washington, DC 20005

Telephone: (202) 467-6900
Fax: (202) 467-6910
www.wcsr.com

STAMP & RETURN

John F. Garziglia
Direct Dial: (202) 857-4455
Direct Fax: (202) 261-0055
E-mail: jgarziglia@wcsr.com

May 30, 2008

FILED/ACCEPTED

MAY 30 2008

Federal Communications Commission
Office of the Secretary

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, DC 20554

**RE: REQUEST FOR REINSTATEMENT OF AUTOMATIC PROGRAM
TEST AUTHORITY for K290BL (formerly K288FZ), Sheridan, WY
(FCC File No. BPFT-20071102ASQ / FCC Facility ID No. 71154)**

Dear Ms. Dortch:

The purpose of this letter is to submit, on behalf of Lovcom, Inc., the licensee of K290BL, Sheridan, Wyoming, documentation demonstrating compliance with Special Operating Conditions # 3 and 4 in FCC Construction Permit File No. BPFT-20071102ASQ. Attached is a study titled "Electromagnetic Field Measurements at Bosin Rock FM & TV Transmitter Site" prepared by Hatfield & Dawson, Consulting Electrical Engineers with the subject facility operating in a test mode.

Pursuant to Condition # 5, this documentation is submitted in advance of the filing of the FCC Form 350. The reinstatement of automatic program test authority for K290BL is respectfully requested so that operation with the modified facilities may commence.

Sincerely,



John F. Garziglia

Enclosures

cc: Mr. James D. Bradshaw, Audio Division

United States of America
FEDERAL COMMUNICATIONS COMMISSION
FM BROADCAST TRANSLATOR/BOOSTER STATION
CONSTRUCTION PERMIT

Authorizing Official:

Official Mailing Address:

LOVCOM, INC.
P.O. BOX 5086
SHERIDAN WY 82801

James D. Bradshaw
Deputy Chief
Audio Division
Media Bureau

Facility Id: 71154

Call Sign: K290BL

Permit File Number: BPFT-20071102ASQ

Grant Date: November 13, 2007

This permit expires 3:00 a.m.
local time, 36 months after the
grant date specified above.

Commission rules which became effective on February 16, 1999, have a bearing on this construction permit. See Report & Order, Streamlining of Mass Media Applications, MM Docket No. 98-43, 13 FCC RCD 23056, Para. 77-90 (November 25, 1998); 63 Fed. Reg. 70039 (December 18, 1998). Pursuant to these rules, this construction permit will be subject to automatic forfeiture unless construction is complete and an application for license to cover is filed prior to expiration. See Section 73.3598.

Name of Permittee: LOVCOM, INC.

Principal community to be served: WY-SHERIDAN

Primary Station: KLQQ (FM) , Channel 284, CLEARMONT, WY

Via: Direct - off-air

Frequency (MHz): 105.9

Channel: 290

Hours of Operation: Unlimited

Antenna Coordinates: North Latitude: 44 deg 37 min 20 sec
 West Longitude: 107 deg 06 min 57 sec

Transmitter: Type Accepted. See Sections 73.1660, 74.1250 of the Commission's Rules

Antenna type: (directional or non-directional): Directional

Major lobe directions (degrees true): 0

	Horizontally Polarized Antenna:	Vertically Polarized Antenna:
Effective radiated power in the Horizontal Plane (kw):	0.25	0.25
Height of radiation center above ground (Meters):	10	10
Height of radiation center above mean sea level (Meters):	2352	2352

Antenna structure registration number: Not Required

Overall height of antenna structure above ground: 46 Meters

Obstruction marking and lighting specifications for antenna structure:

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

None Required

Special operating conditions or restrictions:

- 1 Prior to commencing program test operations, FM Translator or FM Booster permittee must have on file at the Commission, FCC Form 350, Application for an FM Translator or FM Booster Station License, pursuant to 47 C.F.R. Section 74.14.
- 2 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 electromagnetic fields in excess of FCC guidelines.

Special operating conditions or restrictions:

- 3 THE AUTOMATIC PROGRAM TEST PROVISIONS OF 47 C.F.R. SECTION 73.1620 DO NOT APPLY IN THIS CASE. A FORMAL REQUEST FOR PROGRAM TEST AUTHORITY MUST BE FILED IN CONJUNCTION WITH FCC FORM 350, APPLICATION FOR LICENSE, BEFORE PROGRAM TESTS WILL BE AUTHORIZED. This request should be submitted at least 10 days prior to the date on which program tests are desired to commence. This request must contain documentation which demonstrates compliance with the following special operating condition(s):
- 4 The permittee/licensee shall, upon completion of construction and during the equipment test period, make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. If necessary, a fence must be erected at such distances and in such a manner as to prevent the exposure of humans to RF fields in excess of the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997). The fence must be a type which will preclude casual or inadvertent access, and must include warning signs at appropriate intervals which describe the nature of the hazard. Any areas within the fence found to exceed the recommended guidelines must be clearly marked with appropriate visual warning signs.
- 5 Documentation demonstrating compliance with the special operating condition(s) may be submitted in advance of the filing of FCC Form 350. The Commission's staff will review it for compliance and respond by letter stating whether automatic PTA has been reinstated.

*** END OF AUTHORIZATION ***

BENJAMIN F. DAWSON III, PE
THOMAS M. ECKELS, PE
STEPHEN S. LOCKWOOD, PE
DAVID J. PINION, PE

PAUL W. LEONARD, PE
ERIK C. SWANSON, EIT
THOMAS S. GORTON, PE
MICHAEL H. MEHIGAN, EIT

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

JAMES B. HATFIELD, PE
CONSULTANT

MAURY L. HATFIELD, PE
CONSULTANT
OAKHURST, NSW
AUSTRALIA

ELECTROMAGNETIC FIELD MEASUREMENTS
AT BOSIN ROCK FM & TV TRANSMITTER SITE
SHERIDAN, WYOMING

LOVCOM, INC

May 2008

INTRODUCTION

On 27 May 2008, radiofrequency power density measurements were made around the FM transmitting facility at Bosin Rock, southwest of Sheridan, WY. The measurements were made between the hours of 10:00 AM and 12:00 noon. FM and TV transmitters were believed to be operating at 100% of licensed power as the measurements were made. The high power FM and TV facilities located at Bosin Rock are:

High Power Facilities

Call	Channel	Frequency	Licensed Power ERP	Height of Radiation Center Above Ground Level
KYTI-FM	229C	93.7 MHz	75 kW	38 m
KZWY-FM	235C	94.9 MHz	61 kW	38 m
KLQQ-FM	285C0	104.9 MHz	100 kW	38 m
KSWY-TV	Ch 7	174 MHz	9 kW	24 m
K09XK-TV	Ch 9	186 MHz	2 kW	12 m
KSGW-DT	Ch 13	210 MHz	50 kW	36 m
KJCW-LP	Ch 29	560 MHz	8 kW	20 m
KSGW-TV	Ch 12	204 MHz	316 kW	36 m

Low Power Facilities

Call	Channel	Frequency	Licensed Power ERP	Height of Radiation Center Above Ground Level
KPRQ-FM	201A	88.1MHz	0.450 kW	6 m
K288FZ ¹ - CP	290D	105.9 MHz	0.250 kW	10 m
K06AT	Ch 6	82 MHz	0.232 kW	unknown

¹Operating in Test Mode

SITE ACCESS AND LOCATION

The Bosin Rock transmitter site is located within the Bighorn National Forest. This site is not accessible to the public and is a controlled site. There is a locking gate to the access road to the site. This gate is posted with "No Trespassing" and RF Exposure caution signs. The tower is located in extremely rugged terrain and is not located in an area that is likely to have any casual access by the public. There are no through roads or hiking trails that are nearby the tower. The transmitter site and gate are posted with the appropriate RFR caution signs. All station personnel and contractors are required to follow safety procedures before any work is commenced on the site.

OET Bulletin 65 includes the following discussion of access control:

Restricting access is usually the simplest means of controlling exposure to areas where high RF levels may be present. Methods of doing this include fencing and posting such areas or locking out unauthorized persons in areas, such as rooftop locations, where this is practical. There may be situations where RF levels may exceed the MPE limits for the general public in remote areas, such as mountain tops, that could conceivably be accessible but are not likely to be visited by the public. In such cases, common sense should dictate how compliance is to be achieved. If the area of concern is properly marked by appropriate warning signs, fencing or the erection of other permanent barriers may not be necessary.

Bosin Rock transmitter facility is a remote mountain top site. There are no other permanent users of this site. Any other individuals present on this site who are not associated with the communications facilities are trespassing. The Forest Service maintains the road to the mountain top and, as noted above, has a posted and locked gate at the entrance from the main road. There are also many RFR caution signs around the site.

The boundaries of the FM transmitter site are clearly demarcated by posted signs. This is a difficult location for fence maintenance. The snow pack depth is typically greater than 8 feet. This snow depth can destroy the chain-link fabric on the fence due to the freezing of large chunks snow and ice on the fence.

Any member of the general public in the situation of being exposed to excessive RF fields at this site would have to be a determined trespasser and would have had to pass a number of caution signs. The site is surrounded by thick brush and steep terrain which limits access on the north, east and south sides. This site is not a location that is visited by accident, and it is not on the way to any other attractive nuisance or recreation area.

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 the Bosin Rock 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.

TEST EQUIPMENT USED

A NARDA Model 8718B Electromagnetic Radiation Survey Meter with a NARDA Model B8742 Isotropic Shaped Electric Field Probe was used to make the measurements. The NARDA B8742 probe provides an output proportional to **CFR 47 §1.1310 Radiofrequency Radiation Exposure Limits** (Occupational/Controlled Environments) maximum permissible exposure (MPE) over a frequency range from 300 kHz to 3 GHz. The isotropic response of the NARDA B8742 probe is +/-0.75dB.

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 Point 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 sources. 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).

Item	Make/Model	Serial Number	Calibration Date
RF Survey Meter	Narda 8718B	0001	October 2007
Isotropic Shaped Electrical Field Probe (IEEE/ANSI Controlled Environments): 300 kHz-3 GHz	Narda B8742	01001	October 2007

MEASURED FIELDS

The measured fields around the FM transmitter site are shown in the following tables. The measured field at each location is shown as the spatially averaged field. Each of these measurements is an average of four spatially averaged measurements at the same point where the observer is at a point north, east, south and west of the point. This is to minimize the effect of

reflections from the observer². These measurements are shown as a percentage of the General Population/Uncontrolled Environment MPE . All other areas at the site are below the FCC General Population/Uncontrolled Environment MPE.

Location		Percent of FCC General Population/Uncontrolled Environment MPE MPE ³
A	40 feet West of FM tower	141%

These measurements show that there are no locations at the site that exceed the FCC Occupational/Controlled MPE. The highest field that was encountered on the site was 141% of the General Population/Uncontrolled MPE; this location is 40 feet west of the tower of the FM tower.

²See Richard A. Tell and James B. Hatfield The Other Side of RF Measurements: Out of the Lab and into the Real World
http://www.hatdaw.com/papers/Modified_Michaelson_Conference_presentation_final_8-11-2001.pdf

³According to **CFR 47 §1.1310 Radiofrequency Radiation Exposure Limits**, the General Population/Uncontrolled Environment MPE is 20% of the Occupational/Controlled Environment MPE.

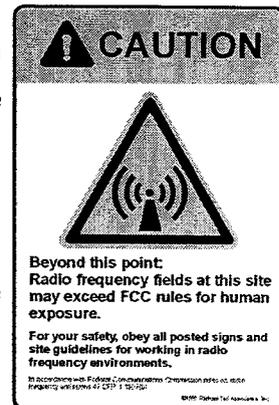
RECOMMENDATIONS

Areas within 40 feet of the FM tower shall be considered a controlled environment. This area is currently has caution signs. A few more caution signs should be posted.

Non-expert occupational users of the site such as contractors, meter readers and other workers, should be given a copy of the site safety plan and be given an orientation by the site engineers before they are allowed access to the areas of the site that exceed the public MPEs. A draft copy of this plan is included in the appendix.

Warning signs such as those shown on the right shall be posted on the gate, along the fence and on the tower. These signs are available from Richard Tell Associates, Inc.
(<http://www.radhaz.com/rfsigns.asp>)

With these recommendations this site will be complying with the FCC rules concerning RF exposure.

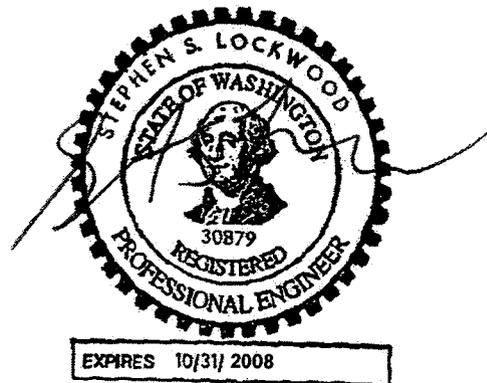


STATEMENT OF ENGINEER

This Engineering Report regarding radiofrequency field measurements around the Bosin Rock FM and TV transmitter site located southwest of Sheridan, Wyoming 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.

28 May 2008



Hatfield & Dawson Consulting Engineers

Bosin Rock Draft RF Safety Plan

Contact List

Facility	Engineer	Phone
All FM	Stephen Sisson - Lovcom, Inc	(307) 672-7421
TV		
TV		

Areas within the posted area within 40 feet of the FM tower of this site are considered a controlled environment.

No work shall be done on the towers while the antennas are operating unless a personal RF monitor is used.

Station engineers shall keep a sign-in log for those who have visited the site. This shall include name, employer, activity, time, date and duration of time spent at site.

General RF Safety considerations apply at this site. These are:

- All personnel at this site shall have RF awareness training
- Do not work on antennas that are operating
- Obey all posted signs
- Assume all antennas are operating unless you know otherwise
- Do not loiter around tower bases
- Do not work on towers that have operating antennas