

RFR Study 9/17/11

KNCA Burney, CA 89.7 MHz

This report provides data recorded on September 17th 2011 at the KNCA Burney, CA 89.7 MHz transmitter site. The RFR study provides FCC Occupational and General public RF percentage readings. The RFR measurements were gathered while KNCA's transmitter was at 100% TPO. This RFR study was completed by Broadcast Engineer Steve Wilde, dba Steve Wilde's Engineering Services.

This report concludes that all RFR measurements above 20% general public percentages are within the proposed fenced facility. All general public RFR measurements outside the proposed fenced facility are below 20% of general public RFR percentages. Four blue RFR "notice" signs should be posted on all four sides of the fenced facility.

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ENGINEERING REPORT

for

**OREGON STATE BOARD OF HIGHER EDUCATION
FOR THE UNIVERSITY OF OREGON**

Measurements of R.F. Power Density at the
KNCA FM Transmitter Building and Antenna Site
near Burney, California on September 17, 2011

FCC Permit File No. BPED-19660417MD

INTRODUCTION

McClanathan and Associates, Inc., Professional Electrical Engineers has been retained by Oregon State Board of Higher Education for the University of Oregon (OSB), permittee of FM Radio Station KNCA, to review measurements of the levels of RF power density at locations within and outside the KNCA transmitter building on Haystack Mountain near Burney, California. The OSB has installed their FM transmitter in a new transmitter building and side mounted the six section FM antenna on a new guyed tower. These measurements are a Special Operating Condition, paragraph 4, of the KNCA construction permit File Number BPED-19960417MD.

All measurements were made on September 17, 2011 between 1148 and 1243 PDT by Mr. Steve Wilde, Broadcast Engineer. Also present at the site during the measurement period was Mr. Darin Ransom, Director of Engineering for OSB and KNCA FM.

The purpose of these measurements is to establish the levels of RF power density under authorized operating conditions with the new installed RF generating equipment and to determine if any location inside the building accessible to service technicians or outside locations accessible to the public exceeds the FCC specified guidelines for human exposure to radio frequency radiation. The KNCA transmitter building and antenna support structure are within a square fenced area which is 80 feet, 24.4 meters, on each side.

INSTRUMENTATION

All measurements were made with a Narda Model NBM-550 Broadband Field Strength Meter, SN B-0760. The Model EA5091 antenna probe was used with this instrument. Average and peak levels of power densities were documented for 503 individual spatial locations inside the transmitter building, outside the building and within the fenced area and outside the fenced area. The area inside the protective fence is not accessible to unauthorized persons.

MEASUREMENT RESULTS

The attached statement "RFR Study 9/17/11" by Mr. Steve Wilde summarizes that all areas outside the fenced area do comply with the maximum permissible exposure for uncontrolled environments and that all areas inside the fence and transmitter building do comply with the maximum permissible exposure for controlled environments.

The four sides of the perimeter fence will be posted with signs stating Caution - High Level Radio Frequency Energy Area - No Trespassing. These signs will be mounted in place prior to initiating program test authority.

Report submitted by:



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September 18, 2011