

October 10, 1996
951220NA

FCC
Experimental Radio Service
P.O. Box 35820
Pittsburgh, PA. 15251-5315

Gentlemen:

This correspondence constitutes an informal application to the FCC for Special Temporary Authority to operate three low-power VHF-FM radios in eastern Contra Costa County, California, in support of a seismic hazard investigation conducted by Woodward-Clyde Federal Services (WCFS). A formal application for allocation of frequencies for this purpose has recently been made by WCFS (FCC File # 5460-EX-PL-96); as we have immediate and critical need to acquire seismic data at this location we submit this request for more timely action. *14 feg*

Pursuant to 47 CFR Part 5, §5.56 we supply the following information:

- 1) Name and Address: Woodward-Clyde Federal Services, 500 12th Street, Suite 100, Oakland, CA. 94607
- 2) Need for special action: The need for special action which drives this request is based on the issue of seismic safety. The radios will transmit data from seismometers which monitor earthquake activity at a reservoir located approximately 50 km east of San Francisco, California. This reservoir will impound water behind a dam located 6 km from a seismically active fault, the Marsh Creek fault. This fault last ruptured in 1980 during a magnitude 5.9 earthquake. The purpose of the seismographic network is to monitor the occurrence of earthquakes along this fault. Should there be significant changes in earthquake activity WCFS seismologists will assess the hazard to the dam (and the population downstream) and recommend action to mitigate the risk. If the situation warrants, engineers from the Contra Costa County Water District can remotely open the outlet gates on the dam to lower the level of the reservoir until the danger passes. Thus, this radio-telemetered seismographic array will provide an early-warning system to prevent catastrophic failure of the dam from large earthquakes.
- 3) Type of operation: Continuous transmission of seismologic data via low-power FM radios.
- 4) Purpose: To monitor earthquake activity in the vicinity of Los Vaqueros Reservoir, Contra Costa County, CA.

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- 5) Time and date: October 15, 1996 to April 15, 1997 or until action has been taken on WCFS's pending application for FM radio frequencies.
- 6) Class of station, call sign of station, and nature of service: The class is Experimental Radio Service; because of our recent application for frequencies we have not yet been assigned a station call sign. The nature of service is continuous transmission of analog data via three low-power FM radios. *WTA? just Exp?*
- 7) Location: The telemetry system consists of three FM transmitters situated along the boundaries of the proposed Los Vaqueros Reservoir which is located in T1S, R2E, Contra Costa County, CA. The approximate coordinates of the transmitters are: 37°50'20"N, 121°44'19"W; 37°49'05"N, 121°43'11"W; 37°48'17"N, 121°45'00"W. The signals from all three transmitters are received at one central site approximately located at 37°49'30"N, 121°43'50"W. *30 mi S of SF, NR of Reservoir* *1 mi S - 0.76 mi, 1/276*
- 8) Equipment: Three VHF-FM transmitters, model number T15F, made by Monitron Corp., Tulsa, OK. *(37x) 159.015 (P.H.) (NHL) 159.21 (PP) (52x) (81x)*
- 9) Frequencies Requested: 159.020 MHz, 159.220 MHz, 159.420 MHz (P.O., I.S.) *(48x) 159.03 (P.O.) 159.225 (P.O.) (81x)*
- 10) Plate power input: 0.250 Watts max R.F. output power *8W (81x)*
- 11) Type of emission: 10F2 *10 KP2D*
- 12) Height of antenna: 2 meters *AFB?*

Any questions regarding this request should be addressed to the undersigned at (510) 874-3014.

Sincerely,

Ivan M. Wong

Ivan Wong
Vice-president

Enclosures



