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August 2, 1993

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Stop Code 1170
Washington, D.C. 20554

Re: MM Docket No. 93-142
RM-8208
Comments in Support of Proposed Rule Making

Dear Mr. Caton:

On behalf of Granite Broadcasting Corporation and KNTV, Inc., enclosed please find the original and four copies of the Declaration of Richard E. Hammond for the above-referenced Comments in Support of Proposed Rule Making, which were filed with the Commission on July 19, 1993. A facsimile of this Declaration was submitted with the original Comments.

Please address any questions regarding this matter to the undersigned.

Very truly yours,

Tom W. Davidson
Diane Conley

Enclosures

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List A B C D E

DECLARATION OF RICHARD E. HAMMOND

I, RICHARD E. HAMMOND, declare the following:

1. I am an attorney licensed to practice in the State of California and am a partner in the law firm of Heller, Ehrman, White and McAuliffe in San Francisco, California. I have no formal academic training or field experience as a geologist, a seismologist, or a seismic engineer. Therefore, I am not, nor by executing this Declaration do I purport to be, an expert in the subjects of geology, seismology, or seismic engineering. Nevertheless, as described below, my professional experience includes seven years during which I worked extensively on facility siting issues that centrally involved considerations of hazard, facility reliability, and public safety, among other concerns.

2. For three years (1977-1980), I served as Deputy Secretary for Resources in the State of California Resources Agency ("the Resources Agency"), a cabinet-level agency roughly analogous to the U.S. Department of Interior in the federal government. The Resources Agency then included within its line organization (and today continues to include) the California Department of Conservation ("DOC"), which in turn encompasses, among other divisions, the California Division of Mines and Geology ("CDMG"). The CDMG includes within its organization among its other divisions and programs, the state Geologic Hazards Assessment Program, the Earthquake Engineering Program, the Geologic Information and Support Program, and the State Geologist. During my years as Deputy Secretary of Resources, I

was directly involved in numerous facility siting issues involving the public safety, including the seismic hazard and seismic safety, of proposed and existing nuclear power plants, very large dams, liquefied natural gas facilities, oil and gas pipelines, onshore and offshore oil tanker terminals, and onshore and offshore oil facilities. With respect to issues of seismic hazard and seismic safety, I worked closely with personnel of the CDMG, including the State Geologist and his staff geologists who were working on geologic hazard assessment issues. Often the work involved consideration of the relative seismic hazards that would be associated with alternative site locations for a given facility or type of facility. In the course of such work, I reviewed maps and read treatises, reports, and other memoranda on seismic hazard issues prepared by geologists. Frequently I communicated on such issues with engineers at the California Seismic Safety Commission, with geologists at the U.S. Geological Survey ("USGS") in Menlo Park working on seismic hazard evaluation, and with private-sector geologists representing corporations and non-governmental organizations.

3. Prior to my three years as Deputy Secretary for Resources, I had worked for approximately two and two-thirds years (1973-75) as a staff member of the California Coastal Commission, and approximately one and one-third years as Senior Energy Advisor in the Governor's Office of Planning and Research. In both of these positions, I worked extensively on energy

facility siting issues similar to those discussed above. In these capacities, I was also involved with the DOC, the CDMG, the USGS, and geologists representing other organizations, and I worked regularly with maps, treatises, reports, and memoranda about seismic hazard and seismic safety issues, prepared by geologists.

4. In late 1992 I was retained by Granite Broadcasting Corporation ("Granite") to undertake a review of existing and available literature and maps that provide information on the vulnerability of the Loma Prieta Peak transmitter tower site of Station KNTV, San Jose, California, to future seismic activity. In addition, I was instructed to and did conduct informal interviews on the subject with officials of the State of California's Division of Mines and Geology ("CDMG") regarding this matter. I was instructed to and did prepare a Declaration in this proceeding dated February 17, 1993, regarding my findings on the vulnerability of Station KNTV's Loma Prieta Peak transmitter tower site to possible future seismic activity ("February 17, 1993 Declaration"). More recently I was instructed to and did review existing and available literature and maps that provide information on the vulnerability to future seismic activity of the present Loma Prieta Peak transmitter tower site of Station KNTV, San Jose, California, compared to the vulnerability of five possible alternative sites that KNTV believes represent the least short-spaced sites available where

KNTV can provide comparable or better coverage for its community of license and service area. These sites are identified as Sites A through E in the Engineering Statement of Richard L. Biby and the attachments thereto (the "Alternative Sites").

5. My findings in connection with this undertaking are based directly on available literature and maps, which are available in official publications of the State of California. Based on these findings, which are set forth in detail below, I conclude that transmitter tower facilities that might be situated at the Alternative Sites appear to be less likely to be exposed to severe future seismic activity than the facilities at the KNTV tower site on Loma Prieta Peak.

6. According to a publication of the California Division of Mines and Geology, "relative geologic stability under seismic conditions at a particular site is dependent on a number of factors, including...1) magnitude of the earthquake; 2) distance of site from the earthquake epicenter; 3) duration of ground shaking; 4) type of material and water content of the material underlying the site; 5) slope of the site and general topography of the surrounding area; 6) presence of an active fault on the site (possibility of ground rupture).[1/] From

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1/ Environmental Geological Analysis of the South County Study Area, Santa Clara County, California, by John W. Williams and Charles F. Armstrong, Earl W. Hart, and Thomas H. Rogers. Prepared in cooperation with the Santa Clara County Planning Department, 1973. Preliminary Report 18. California Division of Mines and Geology, Sacramento, California. At page 5.

these factors, one may conclude, among other things, that one site might have a relatively higher seismic risk than another if it is located on an active fault (factor 6) and the other site is not so located, and if it is closer to active faults forecast to have potentially higher magnitude earthquakes (factor 1), near which epicenters are likely to occur (factor 2). These three factors suggest threshold-level screening parameters for predicting the relative seismic vulnerability of the Loma Prieta Peak location, on the one hand, and of the Alternative Sites on the other, prior to possible further detailed site-specific investigations.

7. In the February 17, 1993 Declaration, I presented information describing the present location of the KNTV transmitter tower in terms related to the seismic risk to which the facility is exposed. To review, the transmitter sits atop Loma Prieta Peak, near the boundary of Santa Clara and Santa Cruz Counties, California. According to the CDMG Faulting Map[2/] attached to the February 17, 1993 Declaration as Attachment A thereto, which depicts all of the known faults in the San Francisco Bay Area and indicates whether they are recently active

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2/ See Map entitled "Map Showing Recency of Faulting, San Francisco-San Jose Quadrangle, California, 1:250,000" (Bortugno, McJunkin, Wagner, 1991), State of California Division of Mines

or show no evidence of recent fault displacement, Loma Prieta Peak is located approximately two miles from the San Andreas Fault. The San Andreas Fault is part of the world's most seismically active zone. It is depicted on the CDMG Faulting Map as a line highlighted in red, denoting, according to the map's legend, a fault on which displacement has occurred in historic time. Loma Prieta Peak is located approximately 6 miles (approximately 10 kilometers) north-northeast of the epicenter of the 1989 Loma Prieta Earthquake. That earthquake registered 7.1 on the Richter scale. Loma Prieta Peak also is nearly astride

range have been cited farther north along the Sargent-Berrocal zone (Lee and others, 1972; Wesson and others, 1975).[5/] The CDMG Faulting Map also shows the Sargent fault appearing to connect with the San Andreas fault, approximately six miles to the west and slightly north of Loma Prieta Peak. The Sargent fault is part of the Sargent-Berrocal fault system, which is estimated to have a maximum magnitude earthquake potential of 7.4 Richter - significantly greater than the 7.1 Richter Loma Prieta earthquake of October 17, 1989.[6/] The February 17, 1993 Declaration offers further discussion of the seismicity of the Sargent fault as part of the Sargent-Berrocal fault system, and the relationship believed to exist between seismic activity on the San Andreas fault system and on the Sargent-Berrocal fault system.[7/] See February 17, 1993 Declaration at 5-6.

8. In summary, Loma Prieta Peak (i) is approximately 2 miles from the very active San Andreas fault, which might be expected to produce additional major seismic events in the future; (ii) is located almost directly on the Sargent fault, which is part of the seismically active Sargent-Berrocal fault system believed capable of producing an earthquake of 7.4

5/ Special Report 140, at 48, citing several references fully listed in the bibliography entitled "References Cited", which appears at 48-49.

6/ "Special Report 140, at 48 (Hay, Cotton, and Hall.

7/ Special Report 140, at 41 (Hay, Cotton and Hall).

Richter; and (iii) is located quite near to the point of highest recorded peak acceleration in the zone subjected to the most severe ground shaking during the 1989 Loma Prieta Earthquake on the San Andreas system, and might be expected to suffer such severe ground shaking from seismic events along either the San Andreas or the Sargent fault systems.

9. KNTV's electrical engineering consultants have identified five possible Alternative Sites that they believe represent the least short-spaced sites available where KNTV can provide comparable or better coverage for its community of service. These sites, identified as Sites A through E in the Engineering Statement of Richard L. Biby and the attachments thereto (the "Alternative Sites"), all of which are on peaks clustered within about 3 miles of one another, are located approximately 3.5 to 5.5 miles north and northwest of the Loma Prieta Peak transmission facility. For the reasons set forth below and based upon the maps and documents published by the

are further distant. Applying factors 1 (magnitude of potential earthquake) and 2 (distance from possible epicenter), listed hereinabove in Paragraph 6, as screening parameters, this greater distance from one of the world's most active fault systems appears to provide a relative seismic risk advantage for the Alternative Sites over the present site.

11. According to the CDMG Faulting Map, none of the Alternative Sites is located on the Sargent Fault, as is the present site. As noted above in paragraph 7, the Sargent fault is shown on the CDMG Map as active during the Holocene period, and the literature indicates it has been active as recently as 1964. The Alternative Sites are located variously from approximately 1.5 to 3 miles to the north-northeast of the respective nearest points of the Sargent Fault. Applying factors 1 (magnitude of potential earthquake), 2 (distance from possible epicenter), and 6 (presence of an active fault on site) as screening parameters, as above, this greater distance from a recently active fault that is part of a system on which a 7.4 Richter earthquake is believed to be possible, appears to provide a relative seismic risk advantage for the Alternative Sites over the present site.

Faulting Map, all of which are shown as narrow black lines indicating, according to the legend, a "Fault showing evidence of no displacement during Quaternary time (rupture during the last 2,000,000 years) or faults without Quaternary displacement." The map's legend appears to place activity on these faults at approximately 5,000,000 years before the present.

13. According to the CDMG Faulting Map, the Berrocal Fault is located variously from approximately 1 mile (Alternative Site E) to 3 miles to the east-northeast of the Alternative Sites. The present transmitter site is located approximately two miles from the nearest point on the Berrocal fault. The Berrocal fault appears to present a less significant element of seismic risk, however, than either the San Andreas or the Sargent faults for several reasons. Although the Berrocal fault is part of the seismically active Sargent-Berrocal fault system discussed above, the Berrocal fault itself is shown on the CDMG Faulting Map as a solid line highlighted in la vender, indicating, according to the legend, a "Quaternary (undifferentiated) fault -- most faults in this category show evidence of displacement during the last 2,000,000 years..." The legend appears to place activity on the Berrocal fault at approximately 700,000 to 2,000,000 years before the present. Discussions of the Sargent-Berrocal System in the cited literature I have reviewed refer to recent seismic activity on the Sargent fault, but make no such reference with respect to the Berrocal fault. Therefore, to the extent that the Berrocal

fault presents a seismic risk that might be factored into the evaluation, there apparently is little relative advantage or disadvantage to any of the existing or Alternative Sites with respect to distance from the Berrocal fault.

14. Based upon my professional experience (as described in paragraphs 1, 2 and 3 above) and upon my review of the technical literature and mapping reviewed and cited above, Loma Prieta Peak, by its location directly on the Sargent fault, its immediate proximity to the San Andreas fault, and its proximity to the epicenter of the October 17, 1989 quake, appears to be a poorer location for a TV transmission facility, in terms of seismic risk, than the Alternative Sites. Based upon proximity to active faults believed by experts to be capable of generating major seismic events, the Alternative Sites appear to be less likely to experience ground shaking as severe as has occurred and is likely to occur again at Loma Prieta Peak.

I declare that the foregoing is true and correct to the best of my knowledge and belief.

Richard E. Hammond

RICHARD E. HAMMOND

Dated: July 19, 1993