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October 1, 2008

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To: Members of the Planning Commission and Interested Parties

From: Bill Wycko, Acting Environmental Review Officer

Re: **Attached Comments and Responses on Draft Environmental Impact Report
Case No. 2007.0206E: Sutro Tower Digital Television Project**

The attached Comments and Responses document, responding to comments made on the Draft Environmental Impact Report (DEIR) for the above referenced project, is presented for your information. This document along with the DEIR will be considered by the Planning Commission in an advertised public meeting on October 23, 2008, at which time the Planning Commission will determine whether to certify the EIR as complete and adequate.

We are sending this to you so that you will have time to review the documents. The Planning Commission does not conduct a hearing to receive comments on the Comments and Responses document, and no such hearing is required by the California Environmental Quality Act. Interested parties may, however, write to the Commission members or to the President of the Commission at 1650 Mission Street and express an opinion about the Comments and Responses document, or the Commission's decision to certify the completion of the Final EIR for this project. Letters should be sent in time to be received at 1650 Mission Street on the Wednesday before the Planning Commission meeting for which the EIR approval is calendared.

You should note that if you receive a copy of the Comments and Responses document in addition to the DEIR, you will technically have a copy of the Final EIR. Thank you for your interest in this project.

If you have questions about the attached Comments and Responses document, or about this process, please call the EIR Coordinator, Viktoriya Wise at (415) 575-9049.

SUTRO TOWER DIGITAL TELEVISION PROJECT

Comments and Responses on Draft EIR

Planning Department Case No. 2007.0206E
State Clearinghouse No. 2008012005

Draft EIR Publication Date: May 17, 2008
Draft EIR Public Hearing Date: June 26, 2008
Draft EIR Public Comment Period: May 17, 2008 through July 1, 2008
Final EIR Certification Date: October 23, 2008

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A. Introduction

This document contains public comments received on the Draft Environmental Impact Report (Draft EIR, or DEIR) prepared for the proposed Sutro Tower Digital Television Project, and responses to those comments. Also included in this document are staff-initiated text changes.

Following this introduction, Section B contains a list of all persons and organizations who submitted written comments on the Draft EIR and who testified at the public hearing on the Draft EIR held on June 26, 2008.

Section C contains summaries of substantive comments on the Draft EIR (in some case directly quoted) made orally during the public hearing and received in writing during the public comment period, from May 17 through July 1, 2008. Comments are grouped by environmental topic and generally correspond to the table of contents of the Draft EIR; where no comments addressed a particular topic, however, that topic does not appear in this document. The name of the commenter is indicated following each comment summary or quotation.

Section D contains text changes to the Draft EIR made by the EIR preparers subsequent to publication of the Draft EIR to correct or clarify information presented in the DEIR, including changes to the DEIR text made in response to comments.

Some of the responses to comments on the Draft EIR provide clarification regarding the DEIR; where applicable, changes have been made to the text of the DEIR, and are shown in double underline for additions and ~~striketrough~~ for deletions.

The comment letters received and the transcript of the public hearing are reproduced in Attachments 1 and 2, respectively.

These comments and responses will be incorporated into the Final EIR as a new chapter. Text changes resulting from comments and responses will also be incorporated in the Final EIR, as indicated in the responses.

B. List of Persons Commenting

Written Comments

Groups

Brian McDermott, President, Midtown Terrace Homeowners' Association, letter, June 25, 2008
Twin Peaks Improvement Association, resolution passed June 13, 2008
Denise LaPointe, President, West of Twin Peaks Central Council, letter, June 23, 2008

Individuals

Siu Ling Chen, e-mail, June 24, 2008, and letter, June 25, 2008
Susan M. Keeney, e-mail, July 1, 2008
Doris Linnenbach, letter, June 26, 2008
Dr. George and Myrta Matula, e-mail, June 30, 2008
Yulia A. Oryol, e-mail, June 25, 2008

Persons Commenting at the Public Hearing, June 26, 2008

Dona Crowder
Doris Linnenbach
Susan Keeney
Thomas Lee
Debra Stein (representing the project sponsor)
Planning Commissioner Michael Antonini

C. Summary of Comments and Responses

General and Procedural Comments

Draft EIR Review Period

Comment [G1]

Several commenters requested that the 45-day review and comment period for the Draft EIR be extended. (*Denise LaPointe, West of Twin Peaks Central Council; Twin Peaks Improvement Association resolution; Doris Linnenbach; Dr. George and Myrta Matula; Dona Crowder; Thomas Lee*)

Response

The Draft EIR was circulated for public review for 45 days, as required by *CEQA Guidelines* Section 15105(a). Following public testimony at its June 26, 2008, meeting, the Planning Commission declined to extend the public comment period.

Permit History of Sutro Tower

Comment [G2]

“Sutro Tower is a 977 foot steel tower erected without proper permits in 1971 (*Twin Peaks Improvement Association resolution*)

“Sutro Tower has added over 100 antennae without permits, even though many of them weighed many tons.” (*Dr. George and Myrta Matula*)

Response

Sutro Tower was originally approved by the Planning Commission, under a conditional use permit, in accordance with Planning Commission Resolution No. 5967, March 10, 1966 (DEIR pp. 33 – 34, including footnote 7) and was built in 1971 – 1972 in accordance with all relevant requirements of the *San Francisco Building Code*, and with benefit of all necessary building permits.¹ To the extent that improvements made to the tower since its original construction have required compliance with the *Building Code*, the applicable *Building Code* provisions have been those in effect at the time the improvements were approved. Regarding alteration to or addition of antennas to Sutro

¹ Planning Commission Resolution No. 5967 is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Tower since its construction, Sutro Tower Inc. has obtained building permits, as required, from the Department of Building Inspection for the changes in tower equipment.²

Comment [G3]

“Sutro Tower has never fulfilled its promise to build a public park on its land.” (*Dr. George and Myrta Matula*)

Response

The reference to a promised park is unclear. The original conditional use permit granted for construction of Sutro Tower, in Planning Commission Resolution No. 5967 distinguished between the Sutro Tower site and the nearby public greenbelt, stating, among other things, “The site of the proposed tower and building is and will remain largely undeveloped and wooded in keeping with its proximity to a public greenbelt area...” and “In the preparation of plans, construction of the project and its maintenance thereafter, there shall be maximum retention of existing trees and use of supplemental landscaping in order to screen the building and tower from the surrounding area and enable the site to serve as a visual continuation of the nearby public greenbelt” (Condition No. 5). Sutro Tower is in compliance with Condition No. 5, because the then-existing trees remain around the tower and additional landscaping has been planted around the transmitter building, the parking lot, and the base of the tower. In addition, Condition No. 6 of Resolution No. 5967 states that the entrance of the public to the Sutro Tower site shall not be encouraged. Therefore, provision of a public park on the Sutro Tower site would not be in keeping with Condition No. 6.

Notification of EIR Publication

Comment [G4]

Some commenters stated that they were not notified regarding publication of the Draft EIR. (*Denise LaPointe, West of Twin Peaks Central Council; Dona Crowder; Dr. George and Myrta Matula*)

Response

Public notice regarding the publication and availability of the Draft EIR was given in accordance with Chapter 31 of the *San Francisco Administrative Code* and the state *CEQA Guidelines*. A notice of availability was mailed to adjacent residents and to property owners within 300 feet of the parcel occupied by Sutro Tower. (Approximately

² Permit history for Sutro Tower and its antennas can be reviewed at the Department of Building Inspection (DBI), 1660 Mission Street. Note that DBI permits review of building plans (for any building) only upon receipt of an affidavit from the building owner. Permit information for many recent permits is also available on the DBI website at: <http://services.sfgov.org/dbipts/default.aspx?>.

375 notices were mailed.) Additionally, 17 posters, each 11-by-17-inches, were placed at 13 locations in the neighborhoods surrounding Sutro Tower, and a notice of publication and availability was placed in the *San Francisco Examiner* on Saturday, May 17, 2008, the date of DEIR publication. Notice was also posted at the Planning Department offices and on the Department's website, where the DEIR itself was posted for review and download. Copies of the Draft EIR were also mailed to the Twin Peaks Improvement Association, the Midtown Terrace Homeowners' Association, and the Forest Knolls Neighborhood Association. Additionally, copies of the DEIR were distributed to members of the public upon request.

It is noted that the *Planning Code* contains a separate section (Section 306.9) regarding building permit applications for Sutro Tower, which requires that a written notice of such applications be sent to all property owners within 1,000 feet of Sutro Tower and to neighborhood associations on file as having requested such notice. Upon the determination that an application is in compliance with the requirements of the *Planning Code*, the Planning Department shall cause a written notice of the proposed project to be sent in a manner stipulated in Section 306.9.

Additionally, as stated on DEIR p. 27, the Planning Commission has a standing policy, under Resolution No. 11399, adopted in 1998, under which the Commission reviews all Sutro Tower building permits under its Discretionary Review authority. Pursuant to *Planning Code* Section 311(d)(2), notice of the discretionary review hearing will be posted on the Sutro Tower property (Section 306.8). Notice of the hearing will also be mailed to all properties within 150 feet of the Sutro Tower property (Section 311(c)(2)(A)), to neighborhood organizations that have an interest in the specific property or area (Section 311(c)(2)(C)), and to all property owners within 1,000 feet of Sutro Tower (Section 306.9).

Liability

Comment [G5]

Sutro Tower Inc.'s liability insurance limit of \$50 million is inadequate because there are more than 800 homes in the nearby Midtown Terrace neighborhood, or \$62,500 per dwelling. (*Susan M. Keeney*)

Response

The comment does not address the adequacy or accuracy of the EIR, but rather addresses potential economic impacts. Therefore, no response is required. For information, it is noted that the comment infers that any incident involving Sutro Tower Inc. would result in catastrophic damage to or destruction of all 800 homes referenced in the comment. This would seem to be an extremely unlikely scenario, and thus is considered speculative.

Project Description

Need for the Project

Comment [PD1]

“The Project Description mistakenly suggests the project is necessary to comply with the Federal Communications Commission’s (FCC) mandate to cease analog television transmission on February 17, 2009, and switch to digital transmission (DEIR pp. 17 – 18). **In fact, Sutro Tower is able to broadcast digitally and has had this capability since the first DTV project in 1998.** The ability of Project Sponsor to meet the FCC requirement to switch to digital transmission is confirmed in the DEIR’s ‘No Project’ Alternative discussion found on pp. 76 through 79. Some alterations may be necessary to add auxiliary antennas if there were no project, but such an addition would be much smaller in scope than the proposed project.” Additionally, the project “would only marginally benefit a minority of the 10 to 15% of homes which do not have cable or satellite connections.” (*Siu Ling Chen; Brian McDermott, Midtown Terrace Homeowners’ Association; Dr. George and Myrta Matula; Susan M. Keeney; Dona Crowder*)

Response

As the commenters correctly note, television stations with broadcasting facilities on Sutro Tower currently broadcast digital signals from the tower. As stated in the DEIR on p. 15, “The project sponsor proposes to convert the television antennas on Sutro Tower from the current combination of analog and digital to an all-digital system.”

According to the project sponsor, at present, every television station at Sutro Tower has both a main analog antenna and an auxiliary analog antenna to allow uninterrupted broadcasting during maintenance and emergency conditions. Certain stations also have digital main antennas: the stations that currently also broadcast digital signals do not have digital auxiliary antennas, as there is currently only the one set of digital (main) antennas.

Under the proposed project, the existing analog auxiliary antennas would be removed and replaced with digital auxiliary antennas to sustain the same level of coverage as exists at present in the case of an emergency or the need for maintenance. Without auxiliary digital antennas, after February 17, 2009, Sutro Tower would not be able to provide uninterrupted television broadcasts under emergency conditions when one or more main digital antennas is not operating. Moreover, when maintenance must be conducted on one of the main television antennas (which would all be digital under the project), all main television antennas must be turned off and auxiliary antennas activated so that workers are not exposed to radio frequency radiation in excess of Federal Communications Commission standards. Without digital auxiliary antennas, every television station would

have to go off the air (and no Bay Area resident would receive over-the-air television information) during routine safety inspections or maintenance.³

The potential reuse of the existing main DTV antenna as an alternative to the project is evaluated on DEIR p. 76 (“ten of Sutro Tower’s 11 television stations would continue to operate from the existing DTV antennas”). However, the No-Project Alternative would not, as stated by the commenter, include the installation of digital auxiliary antennas that is proposed as part of the project. As stated above, without digital auxiliary antennas, no backup broadcast capability would be available to the Sutro Tower television stations.

According to the project sponsor, FCC objectives for conversion of American television broadcasting to digital signals include replicating existing analog coverage with new digital television coverage. To replicate the existing analog service, the stations will need both new digital main and new digital auxiliary antennas. It is not possible to reasonably replicate analog coverage and to comply with public radio frequency radiation exposure standards by reusing the existing DTV antennas and installing new digital auxiliary antennas elsewhere on the tower. Placing either new digital main or auxiliary antennas above Level 6 in conjunction with the continued operation of the existing main digital antenna between Levels 5 and 6 would result in excessive occupational exposure levels (340 to 486 percent of the occupational exposure standard). Placing either new digital main or auxiliary antennas on Levels 3 – 4 in conjunction with the continued operation of the existing main digital antenna stack at Levels 5– 6 would leave approximately 1.2 to 1.3 million Bay Area residents without television news or information from at least one Sutro Tower station.⁴ It is also noted that there is no evidence that adding a new antenna stack at Levels 3 – 4 would involve less construction than the proposed project.

In summary, new digital main antennas must be added to the topmost level of Sutro Tower (replacing existing main analog antennas) to ensure replication of existing broadcast coverage and to minimize radiofrequency radiation exposure, digital auxiliary antennas must be added to the tower to ensure uninterrupted broadcasting (there are no digital auxiliary antennas at present), and the required separation between main and auxiliary antennas to protect worker health and safety precludes installation of either the main or auxiliary antennas on the existing vertical beam between Levels 5 and 6.

Concerning the potential for horizontal placement of new antennas, the project sponsor indicates that no manufacturer produces a suitable digital television antenna designed to be mounted horizontally.

³ Auxiliary antennas are used infrequently in cases of emergency or repair conditions. For example, according to the project sponsor, in 2006 and 2007, auxiliary television antennas were used on three days each year, and have been used on one day in 2008 (through June 30).

⁴ Mark D. Neumann, Hammett & Edison, Inc., Consulting Engineers, letter to Debra Stein, GCA Strategies (project sponsor’s representative), July 29, 2008. This letter is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Concerning the option of cable television and the commenter's contention that a relatively small proportion of the public would benefit from the project, according to the project sponsor:

"Free, over-the-air television broadcasting continues to be the only form of television available for hundreds of thousands of local residents. Currently, Sutro Tower serves an estimated 8.4 million viewers in the Bay Area. More than 790,000 residents do not subscribe to cable or satellite TV and continue to depend on free, over-the-air signals for television news and information. Assuming a similar "pay TV" subscription rate in San Francisco, approximately 70,000 San Francisco residents depend on Sutro Tower stations for news and information. Pay TV is not free, does not serve members of the public unable to afford monthly subscription costs, and cannot replace free, over-the-air broadcasting for a substantial portion of San Francisco households.

"Television stations have generally been able to stay on the air or return to the air after serious disasters much faster than cable television systems. By their nature, cable television systems need a physical connection to individual homes. Cable systems also need amplifiers at various distributed locations within the service area to amplify the signal to make up losses in the cable as it gets farther from the system 'headend.' The connection to each individual household can be severed in the case of a serious earthquake or disaster, and emergency power may not be available for each amplifier should utility power be interrupted. As an example, cable systems in New Orleans were out of service for up to several months. Neighborhoods in New Orleans East, Lakeview, St. Bernard Parish and the Lower Ninth Ward continue to be without cable service."⁵

Therefore, over-the-air broadcast television continues to provide a valuable service to the public.

Comment [PD2]

Cannot digital antennas be placed at locations other than where analog antennas are located, if digital signals do not rely on line-of-sight (straight line) transmission? (*Susan M. Keeney*)

Response

Digital television signals require line-of-sight transmission between the transmitter antenna and the receiver, just as do analog TV signals. Therefore, the need for an elevated transmitter (such as a tower) will not change with the conversion of all TV broadcasting to digital signals.

⁵ Debra Stein, GCA Strategies, e-mail to Environmental Science Associates, September 23, 2008. This communication is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Comment [PD3]

“The DEIR impermissibly segments the Proposed Project from the previous DTV project in 1998-99, which the DEIR itself describes on p. 23 ‘as part of the first phase of Sutro Tower’s conversion to digital television broadcasting.’ The previous EIR also impermissibly segmented the Proposed Project which Project Sponsor clearly anticipated. Such segmentation deprived the City’s decision-makers and the public of the opportunity to consider the DTV project as a whole, its total potential impacts, and mitigation measures which might have avoided the need for some aspects of the Proposed Project.” (*Siu Ling Chen*)

Response

As stated on DEIR p. 23, “Currently, four digital main television antennas are attached to a 125-foot long vertical steel truss attached to the east face of the horizontal trusses that make up Levels 5 and 6. This truss was installed in 1998 as part of the first phase of Sutro Tower’s conversion to digital television broadcasting. Although at that time it was envisioned that this truss would support ten digital television antennas, subsequent technological advances resulted in the shared use of a lesser number of antennas.” In 1998, numerous technical and regulatory issues regarding final digital television assignments had yet to be resolved. Several stations were not given their final post-transition channel assignment by the FCC until 2006. Other stations were forced to change plans regarding post-transition operation after 2006 in order to resolve interference with other stations. Thus, the project as currently proposed could not have been envisioned at the time of the prior EIR, and has only become necessary as a result of technological and regulatory changes.

The 1998 EIR stated that Sutro Tower did not plan at that time to install auxiliary digital antennas. However, that EIR acknowledged that reconfiguration of the tower’s digital antennas could occur in the future once analog broadcasting were discontinued, although in 1998 “no decisions about the future configuration [had] been made.”⁶

Comment [PD4]

The DEIR does not contain “adequate discussion of why the new equipment cannot fit into the existing transmission building, especially if transmission equipment related to the analog antennas can be removed.” (*Siu Ling Chen*)

Response

According to the project sponsor, the project would not make space available within the transmission building capable of accommodating the new combining equipment. Analog

⁶ *Sutro Tower Digital Television (DTV) Final Environmental Impact Report*, February 26, 1998; p. 2-10. This EIR is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

equipment within each station's transmission room would be replaced with comparable digital equipment, and no surplus space is anticipated to be made available. There is no room within the building's hallways or other common area for the new combining equipment. Also, the new combiners need to be proximate to the existing rooftop combiners to maintain a connection with the transmission lines on the roof of the building.

Project Setting

Comment [PD5]

Sutro Tower "is within one eighth of a mile to Clarendon Elementary School and Midtown Terrace Playground, Tank Hill Protected Open Space, St John's Armenian Church, San Francisco Fire Station #20, Laguna Honda Hospital, UC Medical Center, the Twin Peaks Observatory, Twin Peaks Protected Open Space and three essential emergency water reservoirs and hundreds of homes within the radius of the Tower." (*Twin Peaks Improvement Association resolution*)

Response

The comment is largely not correct. Most of the land uses identified in the comment are more than one-eighth mile from Sutro Tower, including Clarendon Elementary School, Twin Peaks Reservoir, and Sutro Reservoir (over one-eighth mile); Fire Station No. 20 and the Twin Peaks Observatory (about one-fourth mile), Laguna Honda Hospital (one-third mile), and UCSF Medical Center (about one-sixth mile to UCSF's Aldea San Miguel student housing on Johnstone Drive and one-half mile to the medical center itself). The location of these uses relative to Sutro Tower is described on DEIR pp. 26 – 27.

Comment [PD6]

The project description does not include ancillary equipment, diesel storage tanks, some 200 antennas, concrete pads containing other equipment, and rooftop additions to the transmission building that have constituted expansion of the Sutro Tower facility since it was originally constructed. "Photographs of the current state of the transmission building and its immediate surroundings would provide the reviewing agency and public with an accurate representation of the additions to the origin structure." (*Siu Ling Chen*)

Response

DEIR p. 15 includes the following description, "The entire Sutro Tower facility includes the tower, a transmitter building, a garage and storage building, a guard station, emergency generators, ancillary antennas and equipment associated with radio communications, and a surface parking lot with striping to accommodate 23 cars." On p. 24, the following description is given, "In addition to the television and radio broadcast

antennas, Sutro Tower supports a number of smaller-scale antennas and ancillary equipment associated with radio frequency broadcasting. These smaller-scale antennas and equipment are accessory to the television and FM station tenants at Sutro Tower, or are the primary broadcasting equipment for telecommunications and public safety tenants such as the California Highway Patrol (CHP), Federal Bureau of Investigation (FBI), and United States Postal Inspector. This equipment is used for voice, data, dispatch and paging, microwave interconnect, newsgathering, and other broadcast-related uses.

“The smaller-scale antennas and accessory equipment are located on the tower itself, on the transmitter building rooftop, and in a few cases, on the secured grounds of Sutro Tower. Some equipment on the roof of the building is contained within enclosures for weather protection.”

On p. 25, it is noted, “There are approximately 184 existing smaller-scale antennas (and ancillary equipment) at the Sutro Tower facility in addition to the television and radio antennas described above. These smaller-scale devices are periodically added, altered or replaced with new equipment of similar or enhanced function.”

To ensure that the description of the Sutro Tower facility is complete, the third sentence of the first paragraph on DEIR p. 15 is revised as follows (new text is double-underlined):

The entire Sutro Tower facility includes the tower, a transmitter building, a garage and storage building, a guard station, diesel-powered emergency generators, two underground diesel storage tanks (in concrete vaults for leak containment), ancillary antennas and equipment associated with radio communications, and a surface parking lot with striping to accommodate 23 cars.

The existing transmission building is shown in both photographs in Figure 9, DEIR p. 43. Please see also the response to Comment V1, including Figure C&R-2, p. C&R-18, which also shows the transmission building.

Comment [PD7]

“The description of the Project Setting on pp. 26 though 27 neglects to mention and discuss the fact the surrounding residential neighborhood is also burdened with 5 other antenna facilities on Twin Peaks, Olympia Way, two on Palo Alto Ave., and at Twin Peaks Reservoir.” (*Siu Ling Chen*)

Response

There are two smaller transmission towers (180 feet in height) off of Twin Peaks Boulevard about one-quarter mile east of Sutro Tower, as well as a smaller, 40-foot-tall tower. These towers serve as the City and County of San Francisco’s Central Radio

Station (CRS). As such, they are the City's primary base station and repeater site for public safety and other City government two-way radio communications. The towers are used by the Police and Fire Departments, including the 911 emergency dispatch system, as well as other agencies such as the Sheriff, District Attorney, Office of Emergency Services, and others, including the San Francisco Public Utilities Commission (SFPUC). The antennas at the CRS operate at relatively low power—generally less than 250 watts. (By comparison, the existing analog television antennas at Sutro Tower operate at up to 5 million watts (5,000 kilowatts [kW]), the existing and proposed new digital TV antennas would operate at up to 1,000 kW, and the proposed new digital auxiliary TV antennas would operate at up to 500 kW. Other, smaller broadcast antennas at Sutro Tower operate at relatively low power, comparable to antennas at the City's Twin Peaks CRS.) In 2001, the City had an RFR study undertaken at Twin Peaks, which measured the maximum RFR emissions on the ground within the CRS facility. The RFR levels were well below the public maximum permissible exposure standard established by the FCC. In 2002, the City prepared calculations for the CRS that indicated that, in the unlikely case in which all transmitters were transmitting simultaneously, the CRS would generate a maximum of 26.7 percent of FCC public exposure limit.⁷ (As noted on DEIR p. 66, calculated RFR intensities are typically about twice the measured RFR emissions.)

The Twin Peaks CRS is about one-fourth of a mile east of Sutro Tower. At this distance, RFR emissions from the CRS would not substantially increase ambient RFR near Sutro Tower. Moreover, to the extent they would be measurable, cumulative radio frequency emissions from these towers are included in the measurement of ambient conditions that have been taken near Sutro Tower, while Sutro Tower emissions are included in the measurement of ambient conditions that have been taken near the CRS, described above. None of these readings has exceeded the FCC maximum permissible exposure.

The other antennas referenced by the commenter are small, relatively low-power communications systems used by the Fire Department and the SFPUC in connection with the reservoirs in the project vicinity. Twin Peaks Reservoir is operated by the Fire Department as part of its high-pressure Auxiliary Water Supply System, which is a water supply solely dedicated to firefighting. The other two reservoirs in the vicinity of Sutro Tower—Summit Reservoir and Sutro Reservoir—are operated by the SFPUC and are part of the City's domestic water supply system. Each of the three reservoirs is controllable from off-site locations through the City's Supervisory Control and Data Acquisition (SCADA) communications system, which allows for remote control and monitoring of pumps, valves, water levels, water pressure, and the like. The Fire Department SCADA system operates on the existing 800-megahertz (MHz) radio system

⁷ L. W. Garde, Chief Radio Engineer, City & County of San Francisco, e-mail communication with Environmental Science Associates, September 18, 2008. This communication is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

in use city-wide by the Department of Public Works.⁸ The SFPUC SCADA system operates on a conventional 900-MHz radio system, using 5-watt transmitters. (These systems are comparable to a police or fire dispatch radio system.) The antennas used to link the reservoirs to the City's communications system are far too small to combine with Sutro Tower to result in any meaningful cumulative impacts.

To ensure that the description of the Project Setting is complete, the following text is added as a new paragraph prior to the first full paragraph on DEIR p. 27:

In addition to the antennas on Sutro Tower, City and County of San Francisco's Central Radio Station (CRS) is located on Twin Peaks, about one-fourth mile east of Sutro Tower. This facility contains two 180-foot transmission towers with antennas for the Police and Fire Departments, including the 911 emergency dispatch system, as well as other agencies such as the Sheriff, District Attorney, Office of Emergency Services, and others, including the San Francisco Public Utilities Commission (SFPUC), as well as radio station KALW, operated by the San Francisco Unified School District. The CRS also has a smaller, 40-foot tower that supports several microwave antennas. Additionally, the SFPUC and the Fire Department operate several low-power communications systems in connection with reservoirs in the vicinity of Sutro Tower.

In addition, to incorporate information on the Central Radio Station into the analysis of radio frequency radiation, the following is added as a new paragraph prior to the first full paragraph on DEIR p. 68:

The City's Central Radio Station (CRS) is located on Twin Peaks, about one-fourth mile east of Sutro Tower. At this distance, RFR emissions from the CRS would not substantially increase ambient RFR near Sutro Tower. Moreover, to the extent they would be measurable, cumulative radio frequency emissions from these towers, as well as emissions from the nearby low-power antennas operated by the San Francisco Public Utilities Commission and Fire Department, are included in the measurement of ambient conditions that have been taken near Sutro Tower, while Sutro Tower emissions (and other antenna emissions) are included in the measurement of ambient conditions that have been taken near the CRS, described above. None of these readings has exceeded the FCC maximum permissible exposure.

⁸ Van Dyke, Steve, Superintendent, Bureau of Engineering and Water Supply, San Francisco Fire Department, "San Francisco Fire Department Water Supply System." Undated. Available on the website of the Museum of the City of San Francisco, at <http://www.sfmuseum.org/quake/awss2.html>. Reviewed September 18, 2008. This document is also available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Comment [PD8]

“The description of the smaller-scale antennas and ancillary equipment on Sutro Tower that may need alteration or replacement in the future misleadingly attributes ownership of these antennas primarily to television and radio stations or public safety tenants. The description fails to provide information about the fact private telecommunications tenants own approximately 92, or almost half, of the antenna on Sutro Tower (DEIR pp. 24-25).” (*Siu Ling Chen*)

Response

The DEIR attributes ownership of the smaller-scale equipment and antennas to television and radio broadcasters, to telecommunications tenants, and to public safety tenants. As stated on DEIR p. 24, “these smaller scale antennas and equipment are accessory to the television and FM station tenants at Sutro Tower, or are the primarily broadcasting equipment for telecommunications and public safety tenants such as the California Highway Patrol (CHP), Federal Bureau of Investigation (FBI), and United States Postal Inspector.” As the telecommunications industry has changed, tenancy of Sutro Tower has changed, too, and this condition is likely to remain in the future.

Ownership of antennas on Sutro Tower is not material to the physical effects of the project or to the continued operation of the facility as a “communications utility” under *Planning Code* Section 209.6(b).

Approvals**Comment [PD9]**

The 10.5-foot-tall enclosure proposed to be placed on the roof of the transmitter building would cause the building to exceed the 40-foot height limit in the *Planning Code*. “There is no discussion as to why the expansion of the rooftop enclosure by 50%, which represents a 10.5 foot extension in height of the original transmission building, would not constitute an expansion of the transmission building.” (*Siu Ling Chen; Dona Crowder*)

Response

As stated on DEIR p. 24, the transmitter building currently has a number of smaller-scale antennas and accessory equipment on its roof. Some of this equipment is currently contained within rooftop enclosures to protect it from inclement weather. These enclosures are up to approximately 10.5 feet in height. The rooftop equipment and nine existing rooftop enclosures are exempt from the *Planning Code* height limit under *Code* Section 260(b)(2)(B). Mechanical equipment and penthouses (including air conditioning, fans and cooling units) up to ten feet in height are exempt under *Planning Code* Sections 260(b)(1)(A) and (260)(b)(1)(B). Antennas and towers for antennas are exempt under *Planning Code* Section 260(b)(2)(I). Section 260(b)(2)(M) exempts from the height limit

“structures and equipment necessary for the operation of industrial plants, transportation facilities, public utilities and government installations, where otherwise permitted by this Code and where such structures and equipment do not contain separate floors, not including towers and antennae for transmission, reception, or relay of radio, television, or other electronic signals where permitted as principal or conditional uses by this Code.” Therefore the antennas, the unenclosed rooftop equipment, and the enclosures on the roof of the transmitter building may exceed 40 feet in height.

Concerning the rooftop enclosure, according to the project sponsor, the Department of Building Inspection has never required the rooftop weather protection enclosures on top of the transmission building to conform to requirements for structural elements of the building. These enclosures, therefore, do not constitute expansion to or alteration of the originally-approved building and no amendment of the conditional use permit has been or is required for equipment enclosures.

Comment [PD10]

Section 209.6 of the *Planning Code* conditionally permits communication facilities within a residential district “if **‘operating requirements necessitate placement’ in the district,**” but the EIR does not discuss whether the project would meet this condition. (*Siu Ling Chen*)

Response

The determination that operating requirements necessitated placement of the communications facility in the district was made at the time the original conditional use permit for Sutro Tower was approved in 1966. There is no requirement in the *Planning Code* that this finding be made for each subsequent building or electrical permit issued pursuant to the approved conditional use permit.

Aesthetics and Visual Quality

Comment [V1]

“Figure 8, a photosimulation of a closer view of the proposed additions shows a side view of the existing and proposed DTV antenna masts, depriving the public and decision-makers of an accurate, frontal view of the visible impact of the addition of a second antenna mast.” The EIR’s conclusion regarding no significant visual effects is inadequate because the DEIR does not consider views from the surrounding residential neighborhoods and does not provide a visual simulation from a close-up viewpoint from one of these areas. Additionally, the DEIR fails to consider the cumulative effect of the increase in antennas from the time Sutro Tower was first constructed, as well as potential future new antennas. (*Siu Ling Chen*)

Response

As is the case with all EIRs, the visual simulations are intended to assist in the identification of potential effects on visual quality and views from a sampling of viewpoints that surround the project. As shown in the visual simulations presented in the DEIR the proposed project would have minimal effects on the appearance of Sutro Tower. Moreover, Figure 7, DEIR p. 40, shows the proposed new mast and digital auxiliary antennas. The new mast and antennas are also visible in both Figure 6, p. 39 (almost in line with the “center” leg of the tower), and Figure 8, p. 41 (affixed to the “left” side of the tower) although less distinctively.

Regarding the lack of a close-up visual simulation, the intention in the EIR was to show the entire tower so as to present simulations of the entirety of the project. However, it is also apparent in Figure 9, close-up photos of the tower under existing conditions (DEIR p. 43), that the smaller auxiliary antennas installed on the tower are visually relatively insignificant in the context of the overall massing of the tower itself.

The same conclusion can be drawn with regard to changes in views of Sutro Tower over time, and the commenter offers no evidence to the contrary. In photos taken from nearby viewpoints (see DEIR Figure 9 and Figures C&R-1 and C&R-2, pp. C&R-17 and C&R-18), it is apparent that, other than the large television antenna stacks atop Level 6 of the tower—which have existed in similar form since the tower was built—the antennas and other equipment attached to the tower are dominated by the scale and massing of the tower superstructure itself. Therefore, while the tower’s original construction would certainly have resulted in a dramatic visible change in the setting at that time, it is unlikely that any changes in the placement or number of antennas and other equipment since the tower’s initial construction could have resulted in a significant adverse effect on aesthetics or visual quality.

The transmission building, shown in Figure C&R-2, is only partially visible from public viewpoints surrounding Sutro Tower. This is because the tower site is secured and public access is not permitted. The closest viewpoint of the transmission building is from the asphalt roadway that surrounds Summit Reservoir (and which is immediately adjacent to the access road to Sutro Tower and the tower guard station). This close-in viewpoint, however, is below the grade of the transmission building, and therefore the roof is not visible, although some of the antennas and other equipment atop the roof can be seen. No public viewpoints offer views of the transmission building rooftop. Because of this, visual changes to the rooftop and equipment thereon would not be considered significant, to the extent that changes could be seen at all.



View from 445 Dellbrook Avenue



View from Base of Tower (Summit Reservoir)



View from 40 Farview Court



View of Tower Base and Transmitter Building from between 48 and 50 Farview Court



View of Tower Base and Transmitter Building from Summit Reservoir Entrance Road
(near Palo Alto Avenue and Marview Way)

SOURCE: ESA, February 10, 2008

2007.0206E: Sutro Tower Digital Television - 206334

Figure C&R-2
Neighborhood Views of Base of Sutro Tower

Geology, Soils, and Seismicity

Comment [GEO1]

“What I want out of this process is a guarantee from the owners of Sutro Tower, the tenants of Sutro Tower, their attorneys and consultants as well as the Planning Department that there is absolutely no set of circumstances that will result in a structural failure of the tower of sufficient magnitude to cause personal injury or property damage to the residents of San Francisco.” (*Susan M. Keeney*)

Response

No project or entity can offer a guarantee against structural failure of any building or structure and, indeed, CEQA does not set forth such a condition for a finding of less-than-significant impact. As stated on DEIR p. 57, the relevant criterion under CEQA is whether a project would “expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving strong seismic ground shaking or landslides, or if the project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.” On pp. 57 – 61, the DEIR found that the proposed project would result in a less-than-significant impact with regard to strong seismic ground shaking; would not result in substantial adverse effects related to catastrophic failure from ground shaking; would not alter slope stability and thus would have a less-than-significant impact thereon; would not result in significant effects with regard to seismically induced ground shaking or landslides; would not be located on a geologic unit or soil that is unstable or would become unstable as a result of the project; and would not result in landslides, lateral spreading, subsidence, liquefaction or collapse. Therefore, the DEIR appropriately concluded that the proposed project would have less-than-significant impacts with regard to geology, soils, and seismicity.

Comment [GEO2]

“The tower bears the full brunt of storms, wind and fog. Is the tower inspected and maintained with the same rigor as the Golden Gate Bridge? I have reviewed the annual inspection reports and even to a lay person they are a farce. Parts of the tower are not accessible. Who is inspecting those parts? The annual inspections are cursory visual inspections of only one of three legs of the tower. Who established the protocols for the inspections and are they good enough?” (*Susan M. Keeney*)

Response

Structural inspection protocols for Sutro Tower were adopted by the Department of Building Inspection in 1999.⁹ DEIR p. 28 includes the following details of the mandatory structural inspection protocols:

- *Annual Inspection:* Each year, an independent testing laboratory approved by the Department of Building Inspection conducts annual inspections of approximately one-third of the tower, such that the entire structure is evaluated over a three-year interval.
- *In-Depth Inspection:* Every five years, an independent testing laboratory conducts a tension check on the guy wires and cross brace cables and re-tensions them as necessary. As part of the in-depth inspection, Sutro Tower may have non-destructive field testing, load tests, and/or materials tests performed by an independent testing laboratory if so recommended by a licensed engineer.
- *Event Inspections:* In the case of a severe storm, earthquake, mudslide or other triggering event that exceeds the design load of the tower, Sutro Tower must have an independent testing laboratory conduct an event inspection and, if required, an additional in-depth inspection in areas of local damage to the tower.
- *Special Inspections:* An independent testing laboratory conducts special inspections as part of an annual inspection to monitor remedial action resulting from any inspection, and conducts any inspection recommended by the licensed engineer for any reason.

Comment [GEO3]

The DEIR does not analyze whether the removal and replacement of antennas during construction of the proposed project would result in increased instability at the upper portion of the tower (above Level 6). (*Susan M. Keeney*)

Response

The proposed structural upgrades described on DEIR pp. 21 – 23 are designed, in part, to accommodate placement of the new and reconfigured broadcast antennas on Sutro Tower. As with any construction project, to the extent that such improvements would be required to support new equipment, the structural improvements would be made prior to installation of the new equipment. Moreover, the contractor that would perform the construction work would prepare detailed drawings, a project phasing construction schedule, and loading diagrams. These materials would be reviewed by licensed structural engineers to confirm the project's compliance with construction safety standards. These materials would also be available for review by the Department of

⁹ Standard Antenna Conditions for Sutro Tower, imposed by the Planning Commission on every Sutro Tower building permit since 2000. These conditions are available for review, by appointment, at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Building Inspection. Accordingly, no significant effects with regard to structural stability of the tower are anticipated to result from construction, including removal of existing antennas.

Comment [GEO4]

Why is further structural upgrade of Sutro Tower required now when it was not required at the time of the 1998 EIR? (*Susan M. Keeney*)

Response

In 1996, Sutro Tower was upgraded to meet *Building Code* requirements for wind loading in effect at that time for ordinary structures.¹⁰ A determination that Sutro Tower was an essential facility was issued by the Department of Building Inspection on December 18, 1997, and became final on January 21, 1998, after an appeal of the determination was rejected by the Building Inspection Commission. The Building Inspection Commission's motion established that "Permit No. 9708664 [the tower upgrade permit] was issued, construction [was] 80% complete, and this permit [was] vested."¹¹ The Department of Building Inspection did not retroactively apply the essential facilities determination or new *Building Code* standards to the vested tower upgrade permit.

Installation of the existing DTV antennas in 1998 did not trigger another wind upgrade of the tower because the Department of Building Inspection determined that the DTV stack did not meet any of the specific *Building Code* sections requiring additional upgrades to the existing structure. Sutro Tower is therefore currently compliant with the *Building Code* with regards to wind resistance.

As part of the currently proposed project, Sutro Tower would be upgraded to meet or exceed wind loading standards for construction of new essential facilities. *Building Code*-mandated wind improvements could be required on some elements of the tower that would experience additional force. Other *Building Code* requirements could also trigger wind upgrades. As part of the project, the sponsor would upgrade every tower element that does not currently meet wind criteria for new essential facilities, even where those upgrades are not mandated by the *Building Code*.

¹⁰ Simpson Gumpertz & Heger, Inc., "Digital Television Conversion of Sutro Tower, Phase II Structural Analysis Report," March 10, 2008; p. 4. This report is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

¹¹ San Francisco Building Inspection Commission, public notice regarding "Motion Adopted January 21, 1998, Declining Jurisdiction on the Appeal of Twin Peaks Improvement Association." Notice mailed January 30, 1998. This document is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Comment [GE05]

“A STRUCTURAL ADVISORY COMMITTEE must be convened during this approval period when there is still time to integrate all recommendations and to address all concerns that might be raised into the planning process.” (*Susan M. Keeney*)

Response

As stated on DEIR p. 57 (DEIR footnotes are presented with the quoted text, rather than as footnotes to this Comments and Responses document), the structural analysis prepared for the proposed project “was subject to independent peer review by Helmut Krawinkler, Ph.D, and Andrew Whittaker, Ph.D, experts identified by the San Francisco Department of Building Inspection (DBI) as qualified to review Sutro Tower data. The review concluded that ‘the design process is sound in concept and the results in the Phase II Analysis Report appear to be reasonable based on the presented wind and seismic loading criteria.’ [DEIR footnote 43] The analysis was also reviewed by DBI, which concurred with the reviewers’ conclusions that the structural analysis report is adequate. [DEIR footnote 44]”

[DEIR footnote 43] Helmut Krawinkler, Ph.D., P.E., Structural Engineering Consultant, and Andrew Whittaker, letter to Eugene Zastrow, General Manager, Sutro Tower, March 11, 2008. This document is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E. Dr. Krawinkler is professor of engineering at Stanford University. Dr. Whittaker is professor of engineering at the University of Buffalo.

[DEIR footnote 44] Hanson Tom, Principal Engineer, Department of Building Inspection, e-mail correspondence, March 18, 2008. This document is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Comment [GE06]

Why is the 1906 San Francisco earthquake used as the earthquake magnitude for analysis when the U.S. Geological Survey website indicates that larger earthquakes are possible? (*Susan M. Keeney*)

Response

The 1906 San Francisco earthquake was not the basis for the structural analysis conducted for Sutro Tower. (No ground-motion recording of that earthquake exists.) As stated on DEIR p. 58, the structural analysis was based on seismic analysis conducted in 1999, which estimated “the probable intensity of earthquakes having an average recurrence interval of 1,000 years and developed ground motion acceleration histories representative of 1,000-year earthquake ground motions.” The report concludes that an earthquake with a maximum moment magnitude of 7.9 is the largest quake expected to occur within a 1,000-year return period in the Bay Area, as required by the *Building Code* for evaluation of essential facilities.

The 1906 San Francisco earthquake is discussed in the setting of Section III.B, Geology, Soils, and Seismicity, including Table 2 on p. 50, which presents the estimated Richter magnitude of the 1906 earthquake (8.25) and also the 1906 earthquake's maximum moment magnitude of 7.9. While other faults in other parts of the world are capable of earthquakes of greater magnitude, the 7.9 moment magnitude is the greatest earthquake that scientists anticipate may occur in the Bay Area in the 1,000-year return period.

Comment [GE07]

"The DEIR refers repeatedly in its Geology, Soils, and Seismicity section to a 1969 study done of Dames & Moore, but does not discuss whether the results of that almost 40 year old study are still valid with what is currently known about seismic safety." (*Siu Ling Chen*)

Response

The DEIR refers to a two geotechnical studies by Dames & Moore (1966 and 1969) to describe subsurface conditions at the project site (p. 46), which would not have changed since Sutro Tower was constructed, and to describe the foundation recommendations for the original tower construction (p. 59). The DEIR notes that the Dames & Moore studies were reviewed as part of the current structural analysis: "As part of the current structural analysis for the tower, Simpson Gumpertz & Heger reviewed the loads imposed by the tower to confirm it was within the parameters set by Dames & Moore" (p. 46); and, "The modeling conducted for the 2008 analysis included review of the adequacy of the existing foundations and verified that they are adequate for the modeled parameters" (p. 59). Accordingly, the DEIR appropriately includes information from the Dames & Moore reports.

Radio Frequency Radiation and Hazards

Comment [HAZ1]

"As someone who has small children who reside in close proximity to Sutro Tower, I want to know about the overall impact of Sutro Tower on the health of the residents of the surrounding neighborhoods. As far as I am aware, no studies have ever been conducted to analyze the potential long term health hazards associated with Sutro Tower. As such, I request that as part of the Environmental Impact Review process, the owners of Sutro Tower be required to also prepare a health study prior to obtaining any approvals for additional work on Sutro Tower." (*Yulia A. Oryol*)

Response

Numerous studies concerning potential health effects related to Sutro Tower have been conducted. The 1998 EIR for installation of the existing DTV antennas included a 104-page report entitled *Biological Effects of Radiofrequency Radiation (RFR): Possible*

Health Effects of RFR on Nearby Humans from Sutro Tower. The report, which was prepared under the direction of the San Francisco Department of Public Health, included a meta-analysis of 313 different epidemiological studies, occupational studies, and studies of potential health effects of animal cells and humans. The 1998 EIR also evaluated three studies conducted in San Francisco to identify whether there were unusual cancer risks near Sutro Tower. That EIR concluded that the cumulative operation of Sutro Tower complies with all public safety standards, that there was no “cancer cluster” around Sutro Tower, and that operation of the facility does not create significant health impacts.¹²

The San Francisco Department of Public Health (DPH) has further reviewed epidemiological studies related to RFR and affirmed that radiofrequency emissions do not pose health hazards when within the maximum permissible exposure (MPE) standards, stating:

- “This review has not found substantial epidemiological evidence to support an association of radiofrequency radiation with cancer”;¹³ and
- “DPH believes that if the general public is exposed to RFR levels below the established FCC MPE limits, no health hazard will occur.”¹⁴

As stated on DEIR pp. 63 – 64, the Federal Communications Commission (FCC) has established limits for human exposure from radio frequency radiation (RFR) such as that emitted from communications equipment at Sutro Tower, and the San Francisco Department of Public Health “has determined that the FCC MPE standard is ‘health protective’ and that ‘if the general public is exposed to RFR levels below the established FCC MPE limits, no health hazard will occur.’ [DEIR footnote 53]” Accordingly, the DEIR evaluates potential effects of human RFR exposure based on the FCC standard. The DEIR (p. 69) concludes (DEIR footnote presented with the quoted text, rather than as a footnote to this Comments and Responses document) that “because radio frequency radiation emitted from Sutro Tower under the proposed project would decline incrementally under long-term permanent conditions, compared to existing conditions, and because RFR levels would be well within the FCC maximum permissible exposure level for the public, the project would result in a less-than-significant impact with regard to RFR emissions.”

¹² *Sutro Tower Digital Television (DTV) Final Environmental Impact Report*, February 26, 1998. This EIR is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

¹³ *Radiofrequency Radiation from Broadcast Transmission Towers and Cancer: A Review of Epidemiology Studies*, San Francisco Department of Public Health, March 2001. This report is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

¹⁴ Richard J. Lee, Community Toxics Program Manager, San Francisco Department of Public Health, letter to Jeremy Battis, San Francisco Planning Department, July 2, 2007. (This letter was prepared in response to an appeal of a CEQA Categorical Exemption for a proposed citywide “wi-fi” proposal.) This letter was cited in the DEIR on p. 64. This letter is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

[DEIR footnote 53] Richard J. Lee, Community Toxics Program Manager, San Francisco Department of Public Health, letter to Jeremy Battis, San Francisco Planning Department, July 2, 2007. (This letter was prepared in response to an appeal of a CEQA Categorical Exemption for a proposed citywide “wi-fi” proposal.) This letter is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Comment [HAZ2]

“The DEIR’s section of RFR does not include the fact that on 3 separate occasions, DPH has taken measurements in the neighborhood that exceeded FCC safety standards for public exposure:

- “1. An official of DPH stated in a declaration, dated October 29, 1997, that he found a ‘hot spot’ at ground level on a residential street in Midtown Terrace (see attached Exhibit C). This declaration was made in support of the City Attorney’s Brief against FCC Preemption of State and Local Regulation of Broadcast Facilities.
- “2. On another occasion in approximately 1998, this same DPH official took a reading on the ground floor of the undersigned’s home on Greenview Court that exceeded the FCC safety standard.
- “3. It is the undersigned’s understanding that the same official took yet another reading on the Summit Reservoir in approximately 1998 that exceeded the FCC safety standard.

“Sutro Tower’s General Manager witnessed both incidents in items 2 and 3 above, and possibly witnessed the incident in item 1.” (*Siu Ling Chen*)

Response

In February 1990, two “hot spots” (locations where RFR is measured at a higher level than in the surrounding area) were identified using then-applicable measurement protocols. The two sites in question were also measured using the more sophisticated FCC protocol that became effective April 1990. One site (a sign pole on Farview Court) was found to exceed the public exposure standards when the older methodology was used but did not exceed exposure limits when the FCC’s more sophisticated measurement protocol was utilized. (This incident on Farview Court appears to be the first “hot spot” referenced by the commenter.) A second hot spot (a handrail at Summit Reservoir) exceeded the ambient RF levels but did not exceed the maximum public exposure limits using either the older or revised methodology. Although neither site was ultimately found to be in excess of public exposure standards, the Farview “hot spot” was remediated by replacing the sign pole with a non-metallic sign pole. The handrail at Summit Reservoir was ultimately removed.¹⁵

¹⁵ Frederick Spaulding, Hammett & Edison Consulting Engineers, letter to Donald Lincoln, Sutro Tower Inc., February, 8, 1990. This letter is on file and available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

Concerning the commenter's residence on Greenview Court, the Department of Public Health (DPH) took RFR measurements at several homes on May 1, 1998, including the commenter's residence. Measurements made that day in a children's bedroom at the commenter's residence were 4 –8 microwatts per square centimeter (sq. cm.), or less than the applicable FCC public exposure standard of 200 microwatts/sq. cm. (0.2 milliwatts/sq. cm.), for frequencies between 30 and 300 megahertz, a range that encompasses FM radio and all television broadcasting. (The exposure standard is higher for AM radio signals, which use lower frequencies.) DPH took additional measurements on June 1, 1998, when auxiliary antennas were operating at Sutro Tower. Those measurements revealed RFR intensities of between 2 and 10 microwatts/sq. cm.

According to DPH staff, there was "spiking" of the meter during the June 1 measurements, and "at sporadic times [it] measured greater than 240 microwatts/sq. cm., which is 120 percent of the FCC public exposure standard." However, DPH also noted that "there was a problem with our meter" and it is likely that "the lower measurements would have been the true measurement level." DPH staff also recalls at least one higher-than-normal RFR reading near a metal bed frame in the commenter's residence, although the date of that reading is uncertain.¹⁶

Upon completion of the proposed project, new RFR measurements would be made to confirm that Sutro Tower complies with the FCC exposure standards. As noted on DEIR p. 68, "The mandatory RFR measurement program (found within the Standard Sutro Tower Conditions adopted in 2000) stipulates that 'Sutro Tower Inc. shall measure RFR public exposure levels at 200 publicly accessible sites within 1,000 feet of the tower. Measurements shall be made within six months of the activation of any "DTV" broadcasting antenna, or within six months of any increase in power from any main DTV antenna, whichever is earliest.' Therefore, in connection with the currently proposed project, Sutro Tower Inc. will measure RFR public exposure levels at 200 publicly accessible sites within 1,000 feet of the tower after installation of the new shared DTV auxiliary antennas and again after installation of the new DTV main antennas."¹⁷ Consistent with FCC Rule 47 CFR 1.1307(b) and OET Bulletin 65, if any hot spot exceeds the FCC exposure limit and it is determined to be due to broadcast operations at Sutro Tower, the site would be remediated with the cooperation and approval of the public or private property owner.

¹⁶ Richard J. Lee, Community Toxics Program Manager, San Francisco Department of Public Health, e-mail to Viktoriya Wise, Major Environmental Analysis Division, San Francisco Planning Department, September 22, 2008. This communication is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

¹⁷ "Shared" antennas refers to antenna facilities used by more than one TV station.

Comment [HAZ3]

“The DEIR’s discussion of the potential for RFR readings to exceed the FCC public exposure limit on pp. 64 – 67 does not provide information about where this unsafe exposure would occur in the neighborhood: around Summit Reservoir, near a home, near Clarendon School? It also does not state what the maximum exposure will be under the Table of Contributions and how long the antennas would stay at that maximum.” (*Siu Ling Chen*)

Response

While the RFR emissions from Sutro Tower could potentially exceed the public exposure limit “from the unlikely, theoretical operation of all FM and/or TV auxiliary antennas at the same time,” as stated on DEIR p. 68, operation under the Table of Contributions would ensure that RFR exposure would remain within the Federal Communications Commission (FCC) public exposure limit. Thus, there would not be expected to be any “unsafe exposure” to RFR emissions.

Comment [HAZ4]

“The DEIR’s discussion of the use of a Table of Contributions is inadequate because it does not provide information about how the limits imposed would be implemented and enforced.

“On p. 65, the DEIR refers to the fact auxiliary antennas will be utilized for periods of time during construction, but does not provide information regarding how long such use would occur.

“On p. 67, the DEIR states access to the rooftop of the transmission building is restricted but does not state the reason that particular area poses a health risk. Again, since there are no photos of that rooftop, the public and decision-makers are deprived of valuable information with which to evaluate the environmental impacts of the Proposed Project.” (*Siu Ling Chen*)

Response

As stated on pp. 64 – 65, “Operation of auxiliary antennas pursuant to the Table of Contributions is administered by Sutro Tower’s general manager and compliance with those directives is mandated as part of every tenant lease at Sutro Tower in order that Sutro Tower does not violate the FCC’s public exposure limits for RFR. This established operational procedure requires that certain broadcasters operate at reduced power from auxiliary antennas, depending on the operating status of other broadcasters to ensure compliance with FCC RFR exposure standards.” Thus, the RFR limits are enforced directly by Sutro Tower through its lease agreement with each tenant. The general manager of Sutro Tower is responsible for ensuring compliance with FCC exposure limits through use of the Table of Contributions. The Congress has pre-empted the field of communication by radio and television, and the FCC has been designated as the expert agency of the United States in the area of radio frequency communications. Therefore, ultimate enforcement of the RFR limits is by the FCC. Nevertheless, as explained on

DEIR pp. 28 – 29, Sutro Tower has, since 2000, been subject to a series of “Standard Sutro Tower Conditions” imposed by the Planning Commission. As noted in the DEIR, these conditions state, among other things, that “Sutro Tower is required to operate in a manner that does not contribute to ambient levels in excess of the FCC standards for RFR emissions.” Moreover:

Sutro Tower is required to measure radio frequency levels at 200 publicly-accessible sites within 1,000 feet of the tower each three years, or within six months of activation of any DTV [digital television] antenna. The Department of Public Health must be notified by Sutro Tower at least three days before measurements are taken. Sutro Tower must remedy any ambient or localized measurements that exceed FCC standards for radio frequency exposure. A report of these RFR exposure measurements must be submitted to the Planning Department and Department of Public Health within 45 days of measurement and those reports shall be made available to the public.

Accordingly, exceedance of “FCC standards for RFR emissions” could be deemed by the City to be a violation of Sutro Tower’s permit conditions. In this way, the City maintains a degree of enforcement authority with respect to public health concerns related to RFR.

As stated on DEIR p. 64, “Ground-level RFR levels during operation of auxiliary antennas are greater than for the main antennas, because auxiliary antennas are installed at lower levels on the tower and are typically physically shorter than main antennas, often for spacing, weight, or power considerations. This results in broad elevation plane patterns and greater contributions at ground level.” The discussion about restrictions on access to the roof of the transmission building is presented on DEIR p. 67 in the context of restrictions in general to both the tower and the transmission building roof “to protect worker health and safety” during periods “when any auxiliary antenna is energized.”

Concerning photos of the rooftop, please see the response to Comment V1, p. C&R-16.

According to the project sponsor, the new auxiliary antennas to be installed as part of the project would operate during working hours when employees are removing the existing main and installing new digital main antennas atop the tower. (The existing digital antennas between Levels 5 and 6 would be used during the construction period at night and on days when no work is going on at the main antenna level. These existing digital antennas would be removed once the new main digital antennas are in place above Level 6.) After completion of construction, the auxiliary antennas would be used, as at present, on infrequent occasions of emergency or repair conditions. For example, in 2006 and 2007, auxiliary television antennas were used on three days each year, and have been used on one day in 2008 (through June 30).

Comment [HAZ5]

“The primary concern I have is with the lowering of certain antennas temporarily from a height of I believe it is about four hundred feet to about one hundred feet which is really close to the ground level.

“Now, there are a lot of residences within several hundred feet of the Tower. There is a school within an eighth of a mile which is six or seven hundred feet. So, lowering antennas from four hundred to one hundred feet significantly increases the distance from the source of the radiation to the people who might experience it.

“Now, again, there are a lot of safety factors built in but given this change which will be temporary but we don’t really know how long it will be in effect for, that’s going to significantly increase the radiation exposure to people in this area.” (*Thomas Lee*)

Response

The comment appears to refer to the fact that new auxiliary digital television antennas would be installed between Levels 3 and 4 of Sutro Tower (between 382 feet and 542 feet above ground level), and that these antennas would operate in the daytime (working hours) during removal of the existing main digital antennas (between Levels 5 and 6) and removal of the existing analog main antennas above Level 6 (762 feet above ground level) and installation of new main digital antennas, also above Level 6. As shown in Figures 3 and 4, DEIR pp. 19 and 20, the new auxiliary antennas would be higher on the tower than the existing analog auxiliary antennas, which are at Level 2. Therefore, the net result of the project would be that more antennas would be farther from the ground than under existing conditions. As noted in the response to Comment HAZ4, the new auxiliary antennas would operate during work hours only, for a portion of the 12- to 16-month construction period. As shown in Table 3, DEIR p. 67, the new auxiliary TV antennas would generate far less radio frequency radiation (14.3 percent of the Federal Communications Commission [FCC] public exposure limit) than do the existing auxiliary TV antennas (99 percent of the FCC limit).

Comment [HAZ6]

The DEIR does not discuss the risk of objects falling from Sutro Tower during construction and maintenance, as has occurred in the past. (*Siu Ling Chen*)

Response

The construction safety plan that is referenced on DEIR p. 71 in regard to fire safety also contains a section devoted to “Protection from Falling Objects,” which states, in part, “Tools and equipment will be tied off with retaining lanyards.” The plan also states that the site superintendent would “monitor wind and weather conditions or predictions and suspend work when deemed unsafe,” and that hoisting operations would stop if winds

exceed 25 miles per hour, while work in enclosed portions of the tower would cease if winds exceed 45 miles per hour.¹⁸

Comment [HAZ7]

The project “will not fix the electrical disruptions of home appliances now endured by close neighbors.” Will the project increase interference with electronics? (*Dr. George and Myrta Matula; Susan M. Keeney*)

Response

As stated on DEIR p. 69, interference by broadcast equipment with consumer electronic devices is not a hazards-related issue. Moreover, such interference is exclusively a matter of federal law. Further, CEQA does not require mitigation of existing conditions, but only requires identification of project impacts and implementation of feasible mitigation measures for those impacts.

Nevertheless, as stated on p. 69, “Because the RFR exposure levels after the transition are calculated to be less than those existing, interference to consumer devices from Sutro Tower operations is likely to be reduced by the project.” The level of interference with consumer devices is also likely to be reduced after conversion to digital antennas as the total number of frequencies in use at the tower will be reduced, with the higher-interference VHF antennas being reduced from five antennas to one antenna.^{19,20}

Risk of Fire

Comment [FIRE1]

The DEIR does not describe the “fire danger” that would cause work to stop and additional precautions be taken (as stated on DEIR p. 71); does not discuss fire risk associated with on-site storage of diesel fuel; and does not discuss a report on fire hazards at Sutro Tower, prepared by the San Francisco Fire Department in 2000. The DEIR does not discuss whether a fire in the eucalyptus trees adjacent to the tower could result in structural failure of the tower and/or ignition of diesel fuel stored on site. “Doomsday scenarios have been played out and are no longer the stuff of fiction.” (*Siu Ling Chen; Susan M. Keeney*)

¹⁸ Sutro Tower DTV Conversion Project, Worker and Public Safety Plan, Draft September 20, 2007. This document is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

¹⁹ Mark D. Neumann, Hammett & Edison, Inc., Consulting Engineers, letter to Debra Stein, GCA Strategies (project sponsor’s representative), July 29, 2008. This letter is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

²⁰ VHF refers to “very high frequency” radio (and television) signals, covering the range from 30 to 300 megahertz. This includes FM radio and analog television channels 2 through 13. Channels above 13 broadcast in UHF, or “ultra high frequency,” which refers to radio signals in the range between 300 and 3,000 megahertz (3 gigahertz). With conversion of all television broadcasting to digital signals, four of the five traditional VHF stations that broadcast at Sutro Tower (Channels 2, 4, 5, and 9) will broadcast UHF digital signals instead, which is why the text quoted from the DEIR refers to VHF antennas “being reduced from five antennas to one antenna.”

Response

As stated on DEIR p. 71, with the exception of construction activity, including welding, the proposed project would not result in any increase in risk of fire, including that related to the on-site storage of diesel fuel, nor would the project result in any change in fire risk related to the surrounding eucalyptus. The project would not add new combustible materials or increase the likelihood of fire at the site. It would also not eliminate existing measures the sponsor takes to monitor and minimize fire risks from trees on its own property, including, as described on DEIR p. 71, maintaining several fire access trails across the property, regularly trimming shrubs and brush to keep access trails clear, and removing dead wood from trees. Inasmuch as CEQA requires an EIR “to identify the significant effects on the environment of a project,”²¹ and that a “significant effect on the environment” is defined as “a substantial, or potentially substantial, adverse *change* in the environment”²² (emphasis added), the DEIR properly concluded that no significant effect would result from the project in regard to fire risk, because the project would result in no increase, and no other *change* in risk of fire, relative to existing conditions.

Concerning potential effects on the structural integrity of the tower if a fire were to ignite in the adjacent eucalyptus trees, one commenter refers to the collapse of the World Trade Center towers in New York City. That situation was substantially different from what could occur if a fire were to ignite in the eucalyptus trees adjacent to Sutro Tower. At the World Trade Center buildings, the combination of jet fuel and flammable furnishings burning within a confined space resulted in structural steel being exposed to more concentrated and rapid heating than could occur in an unconfined space such as the area around Sutro Tower. Moreover, the architectural cladding on the tower’s main structural framing provides protection from fire to the main structural elements, although there is no such protection afforded the steel cables that help brace the tower. Therefore, the risk of structural failure of Sutro Tower in the event if a wildfire is not considered substantial. Concerning diesel fuel stored on site, the fuel is stored in underground storage tanks and therefore would be unlikely to be affected by fire in the eucalyptus trees.

The commenter cites a draft report prepared by the San Francisco Fire Department in 2000 as part of the work of the Sutro Tower Health and Safety Task Force, which was created by Board of Supervisors resolution in 1999. The draft report included a recommendation, “To reduce the fire hazard in the forest, the forest should be thinned and fire trails should be cut.” The sponsor regularly thins trees and brush on its own

²¹ California Environmental Quality Act (CA Public Resources Code) Section 21002.1(a).

²² California Environmental Quality Act (CA Public Resources Code) Section 21068.

property and maintain fire access trails, and the project will not affect these measures. The Task Force was dissolved in 2003 by Board of Supervisors Resolution 185-03.²³

While the project would not change or increase the likelihood or severity of a major fire near Sutro Tower, the San Francisco Fire Department nonetheless recently evaluated the Sutro Tower site with respect to the existing potential for wildfire to affect the structural integrity of the tower.²⁴ The Fire Department recommended that existing eucalyptus trees be trimmed to create the legally required 30-foot separation between trees and the tower and its supporting cables. According to the Fire Department, “Most of the trees surrounding the tower are located more than 30 feet from the tower and only a few trees and branches are located within 30 feet of the tower's structure.”²⁵ The project sponsor has indicated that Sutro Tower will comply with the Fire Department recommendations, and will maintain a 30-foot separation between trees and shrubs and all elements of the tower. As noted above, Sutro Tower will also continue its existing practice of regularly thinning brush and maintaining fire trails to provide firefighter access.

As stated on DEIR p. 71, a stoppage of welding activity on the tower could result if determined necessary by “a trained crewmember assigned to continuously monitor the surrounding area for fire.” It is assumed that such a stoppage would be triggered by evidence of sparks reaching the trees or the ground, or by a similar risk. Therefore, construction activities would not have the potential to result in increased fire hazard in the vicinity.

Cumulative Effects

Comment [CUM1]

“While any single modification to the tower may not appear to be impactful to the surrounding area on its own, the cumulative effect of years of modifications must be taken into account when requests for new modifications are submitted to The City.” (*Brian McDermott, Midtown Terrace Homeowners’ Association*)

Response

CEQA requires that an EIR determine whether a project would result in a significant adverse change in the environment. In general, these changes are to be evaluated against existing conditions, which are “normally” the “physical environmental conditions in the

²³ Resolution 185-03 repealed the original Resolution creating the Task Force; in Resolution 185-03, the Board found that the Task Force “was to file ... a comprehensive report within six months of formal establishment,” and that, as of 2003, “The Task Force is no longer operational.” Resolution 185-03 is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

²⁴ Zari, Lt. Gerald, Division of Fire Prevention and Investigation, San Francisco Fire Department, letter to Debra Stein, GCA Strategies (project sponsor’s representative), September 11, 2008. This letter is available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2007.0206E.

²⁵ Ibid.

vicinity of the project, as they exist at the time the notice of preparation is published.”²⁶ The notice of preparation for the proposed Sutro Tower Digital Television Project was published on January 5, 2008. In general, a lead agency responsible for preparing an EIR may adopt a different “baseline” for its analysis if the choice of that baseline is supported by substantial evidence. Here, no reasonable argument for selection of a different baseline other than the date of preparation of the notice of preparation has been made.

Moreover, the EIR’s description of the existing setting (environmental baseline) effectively captures all cumulative effects.

Analysis of cumulative impacts is a two-step process: first, it must be established whether a cumulative adverse effect is present, and second, it must be determined whether the proposed project would make a cumulatively considerable contribution to the effect. “Cumulatively considerable” is defined in the state *CEQA Guidelines* as meaning that “the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”²⁷ To the extent that all activity dating to the original construction of Sutro Tower in 1972 can be considered to have resulted in a cumulative impact, all such impacts are presented as part of the EIR’s existing setting. For example, the photographs and visual simulations in Section III.A, Aesthetics and Visual Quality, depict Sutro Tower under existing conditions, as it exists as the result of its initial construction and all subsequent modifications. The visual simulations depict the further changes proposed as part of the project, which the EIR finds would not generally be noticeable, and would be less than significant. Likewise, Section III.B., Geology, Soils, and Seismicity, describes the structural evaluation of Sutro Tower, which accounts for all changes to the tower over time. As stated on DEIR p. 58, “The model used for the 2008 seismic and structural analysis accounted for the existing structure, including the modifications made as part of a wind upgrade undertaken in connection with the earlier installation of DTV antennas, the modifications included as part of the seismic upgrade completed in 2005, and the weight of the currently proposed DTV equipment.”²⁸ The analysis concludes that the project as proposed, with structural upgrades of the tower, would not result in any significant adverse effects. And in Section III.C, Radio Frequency Radiation, the existing radio frequency radiation (RFR) emissions are those that include all antennas on Sutro Tower, including those added over time. The analysis also shows the proposed project’s incremental change, which, in the case of RFR, would result in a slight decrease from existing conditions, and therefore would be less than significant.

²⁶ *CEQA Guidelines* Section 15125(a).

²⁷ *CEQA Guidelines* Section 15065(a)(3).

²⁸ The 2008 analysis also assumed an additional 20,000 pounds of future equipment could be installed on the tower.

Finally, as was stated in response to a comment on visual quality, the changes currently proposed at Sutro Tower are relatively minimal in the context of the tower's existing scale and massing, which has remained essentially the same since the tower was constructed in the early 1970s. Accordingly, it is unlikely that any combination of changes in the placement or number of antennas and other equipment since the tower's initial construction could have resulted in a significant impact.

In light of the findings in the DEIR, the project would not result in a cumulatively considerable contribution to any cumulative impacts.

Alternatives

Comment [ALT1]

The DEIR's analysis of alternatives is inadequate because it does not evaluate alternative locations for the proposed non-television antennas and considers only alternative locations for the entire array of proposed digital television antennas, nor is an alternative considered that would re-use the existing digital antennas. (*Siu Ling Chen; Susan M. Keeney*)

Response

Concerning non-television antennas, as stated on DEIR pp. 29 – 30, the project objectives primarily center on compliance with the federal mandate to convert all television broadcasting to digital signals by February 2009. The project would remove existing television antennas (including existing digital antennas) and install new digital main and auxiliary antennas so that Sutro Tower broadcasters could replicate the existing signal coverage provided by analog TV broadcasting. Consistent with an additional project objective, to "maintain flexibility to accommodate future technical improvements in broadcast communications technology and avoid technical constraints that would limit compliance with or implementation of future regulatory and technological developments," the proposed project also includes "alteration, replacement, or addition of small ancillary and accessory antennas and equipment" (DEIR p. 24).

As stated on DEIR p. 25, "At present, the project sponsor anticipates, as part of the proposed project, that a new 2-foot microwave dish and 14 new 36-inch by 30-inch by 2-inch panel antennas would be installed at Level 3 (385 feet AGL) for two new high-speed wireless data service tenants." While other such smaller-scale antennas may be altered, replaced, or added in the future, the currently proposed project does not involve any changes to the vast majority of the 184 existing smaller-scale antennas and other equipment on the tower.

CEQA Guidelines Section 15126.6(a) requires that an EIR "describe a range of reasonable alternatives to the project, or the location of the project" that would reduce or

avoid impacts of the project. The analysis of alternatives is governed by the “rule of reason,” which “requires the EIR to set forth only those alternatives necessary to permit a reasoned choice” by decision-makers, and the alternatives “shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project” (Guidelines Section 15126.6(f)). Specifically with regard to alternative sites, “The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR” (Guidelines Section 15126.6(f)(2)(A)). Installation of the proposed new microwave dish and 14 new panel antennas at another location would not result in any meaningful change in project impacts and would not avoid or substantially lessen any significant effect of the proposed project, and therefore would not meet the *CEQA Guidelines* definition of an alternative to be considered in the EIR. It is further noted, in regard to the avoidance of significant impact, that the DEIR does not identify any significant impacts that could not be mitigated to a less-than-significant level (DEIR p. 74).

The DEIR is required to analyze a reasonable range of alternatives. The alternatives analysis must contain sufficient information from which to extrapolate the impacts of hypothetical alternatives falling between the identified alternatives. As stated on DEIR p. 75 – 76, the DEIR includes “a range of alternatives to the proposed project, and extend from doing nothing (Alternative A, “No Project”) to moving all 11 television stations to an alternative location (Alternative B, “San Bruno Mountain”). Alternative C evaluates the relocation of some stations to Mt. Diablo and the retention of some antennas at Sutro Tower. These alternatives represent a range of alternatives to allow informed decision-making and provide sufficient information from which to extrapolate the impacts of hypothetical alternatives with antenna distribution falling somewhere between those described in the identified alternatives.”

Regarding the potential for continuing use of the existing digital television antennas, this possibility is included as part of the No-Project Alternative, under which “ten of Sutro Tower’s 11 television stations would continue to operate from the existing DTV antennas that are installed below Level 6 on the tower,” while one station “would use its existing analog antenna above Level 6 for DTV operation after the DTV transition” (DEIR p. 76). However, as discussed previously, the No-Project Alternative would not allow the Sutro Tower television stations to provide uninterrupted broadcast service because there would be no auxiliary antennas for use in the event of maintenance or an emergency.

Issues Discussed in the Initial Study

Noise [IS1]

Comment

The DEIR does not analyze noise impacts and how they might change with installation of “a new configuration of guy wires and cables.” (*Siu Ling Chen; Susan M. Keeney*)

Response

Noise impacts are analyzed in the Initial Study (DEIR Appendix A), where it is noted (p. 27):

The guy-wires installed to secure Sutro Tower’s antenna stacks were originally composed of a stiff fiberglass material. In the early years of Sutro Tower’s operation, several neighbors complained of vibration noise from these guy-wires in high wind conditions. In the late 1970s, all original guy-wires were replaced with new strands composed of a more flexible material, and vibration dampers were attached to each new guy-wire. The general manager for Sutro Tower, Inc. reports that he has received no complaints from neighbors about noise from the guy-wires in his 15 years of tenure.

None of the proposed modifications to the tower would be expected to change existing noise conditions. Therefore, effects of wind-generated noise would be less than significant because the proposed project would not substantially alter existing noise levels resulting from wind passing through the tower structure and the new antennas would be more than 200 feet above ground level.

Therefore, noise impacts would be less than significant.

Shadow [IS2]

Comment

“Have the shadow impacts of the proposed reconfiguration been analyzed?” (*Susan M. Keeney*)

Response

Shadow impacts were analyzed in the Initial Study (Appendix A of the DEIR). The Initial Study noted (p. 29) that “because the various antennas would be at least 200 feet above ground level and no more than about eight feet in width, [they] thus would cast minimal shadow on the ground.” Footnote 9 on p. 29 of the Initial Study further explained, “Because the sun is a sphere, not a point, sunlight strikes a given object from multiple,

slightly differing angles. This means that the edge of a shadow cast by a distant object is not a bright line, but is slightly diffuse, and therefore distant narrow objects (such as an antenna high up on the tower) do not generally cast clearly defined shadows.” Accordingly, shadow impacts of the proposed project would be less than significant.

D. Staff-Initiated Text Changes

The following changes to the text of the Draft EIR are made in response to comments on the DEIR or are included to clarify the DEIR text. In each change, new language is double underlined, while deleted text is shown in ~~strike through~~, except where the text is indicated as entirely new, in which case no underlining is used for easier reading.

On page 15, the third sentence of the first paragraph on DEIR p. 15 is revised as follows to ensure that the description of the Sutro Tower facility is complete:

The entire Sutro Tower facility includes the tower, a transmitter building, a garage and storage building, a guard station, diesel-powered emergency generators, two underground diesel storage tanks (in concrete vaults for leak containment), ancillary antennas and equipment associated with radio communications, and a surface parking lot with striping to accommodate 23 cars.

On page 27, the following text is added as a new paragraph prior to the first full paragraph to ensure that the description of the Project Setting is complete:

In addition to the antennas on Sutro Tower, City and County of San Francisco's Central Radio Station (CRS) is located on Twin Peaks, about one-fourth mile east of Sutro Tower. This facility contains two 180-foot transmission towers with antennas for the Police and Fire Departments, including the 911 emergency dispatch system, as well as other agencies such as the Sheriff, District Attorney, Office of Emergency Services, and others, including the San Francisco Public Utilities Commission (SFPUC), as well as radio station KALW, operated by the San Francisco Unified School District. The CRS also has a smaller, 40-foot tower that supports several microwave antennas. Additionally, the SFPUC and the Fire Department operate several low-power communications systems in connection with reservoirs in the vicinity of Sutro Tower.

On page 68, the following as a new paragraph prior to the first full paragraph In addition, to incorporate information on the Central Radio Station into the analysis of radio frequency radiation:

The City's Central Radio Station (CRS) is located on Twin Peaks, about one-fourth mile east of Sutro Tower. At this distance, RFR emissions from the CRS would not substantially increase ambient RFR near Sutro Tower. Moreover, to the extent they would be measurable, cumulative radio frequency emissions from these towers, as well as emissions from the nearby low-power antennas operated by the San Francisco Public Utilities Commission and Fire Department, are included in the measurement of ambient conditions that have been taken near Sutro Tower, while Sutro Tower emissions (and other antenna emissions) are included in the measurement of ambient conditions that have been taken near the CRS, described above. None of these readings has exceeded the FCC maximum permissible exposure.

Attachment 1: Comment Letters

MIDTOWN TERRACE HOMEOWNERS' ASSOCIATION

P.O. Box 31097
San Francisco, CA 94131

June 25, 2008

Subject: Proposed Sutro Tower Modifications

As the President of the Midtown Terrace HOA, I feel compelled to voice my concerns of behalf of the 800+ homeowners in Midtown Terrace, regarding the ongoing additions to Sutro Tower, a structure that looms large over our heads. Unfortunately, I was unable to attend the latest Sutro Tower hearing, but it is my understanding that the Sutro Tower representative, Debra Stein, has suggested that the new improvements for which the owners of the tower are awaiting approval, are necessary because they are "mandated by the FCC requirement that all analog television signals in America terminate in February 2009 and that television stations then commence digital broadcasting."

In my dealings with the Midtown Terrace homeowners who attend these hearings, it has come to my attention that, in fact, it is unlikely there are any outstanding requirements that have not already been met, through previous alteration/additions/modifications to this tower. It is my understanding that Sutro Tower is currently able to meet the February 2009 FCC deadline because it is already broadcasting digital signals, and has been doing so since its DTV project upgrade in 1998.

I am hopeful that the Planning Department and Planning Commission will thoughtfully and carefully review the plan proposed by the owners of the tower. While any single modification to the tower may not appear to be impactful to the surrounding area on its own, the cumulative effect of years of modifications must be taken into account when requests for new modifications are submitted to The City. It is not reasonable to assume that a 40 year old CU Permit can be abused forever. Eventually, the welfare of the thousands of people (taxpaying voters, not transient renters) who live in the single family homes within the communities that surround this tower (and lie within the "fall zone"), must be considered.

The residential neighborhoods surrounding Sutro Tower - Midtown Terrace, Forest Knolls, Galewood Circle, and Twin Peaks -- urge the Planning Department, Planning Commission, and Department of Building Inspection to review the details of this multi-million dollar project in a thoughtful and thorough manner, uninfluenced by false assertions of FCC mandates.

Respectfully,

Brian McDermott
President, Midtown Terrace HOA

PD1

CUM1

Twin Peaks Improvement Association
P.O. Box 31002
San Francisco, California 94131

Whereas Sutro Tower impacts and its construction projects impact Midtown Terrace, Forest Knolls, Twin Peaks/Clarendon Heights neighborhoods and is within one eighth of a mile to Clarendon Elementary School and Midtown Terrace Playground, Tank Hill Protected Open Space, St John's Armenian Church, San Francisco Fire Station #20, Laguna Honda Hospital, UC medical Center, the Twin Peaks Observatory, Twin Peaks Protected Open Space and three essential emergency water reservoirs and hundreds of homes within the radius of the Tower,

Whereas Sutro Tower is a 997 foot steel tower erected without proper permits in 1971 in a residential neighborhood without regard to existing environmental setting and neighborhood character, and whose management has acted repeatedly without neighborhood participation and notification such that the Planning Commission ordered in Resolution 11399 adopted July 14, 1988 ordering Sutro Tower to hold a public hearing to review every project in its discretionary review authority, and further that the San Francisco Board of Supervisors adopted a resolution mandating notification of all homes within 1,000 foot radius also known as the "fall zone";

Whereas Sutro Tower now manifests itself in a draft EIR on a mandated project to replace nine existing analog towers with the same height and bulk digital towers, new structural upgrades not completed during their seismic retrofit, alteration, replacement and addition of ancillary and accessory antennas, additional auxiliary equipment and electrical, elevator and government sponsored equipment and has again forced the neighborhood to petition for notification and for information to those most concerned about the proposed project;

Therefore, be it resolved, that the Twin Peaks Improvement Association, together with support from the Coalition of San Francisco Neighborhoods and the Midtown Terrace Association, request the Planning Commission to order a two month continuance of the June 26, 2008 hearing and that Sutro Tower, Inc., sponsor neighborhood meetings to educate and inform neighbors and allow TPIA to seek legal counsel and scientific experts to review the 118 page draft EIR document to ensure that construction mitigation and environmental impacts are not adverse to the existing neighborhoods.

[Signature]
TPIA

6/13/08

G1

West of Twin Peaks Central Council

P. O. Box 27112 • San Francisco, CA 94127

June 23, 2008

Ms. Christine Olague
President
San Francisco Planning Commission
1650 Mission Street
San Francisco, California 94103

Subject: DEIR Hearing on Sutro Tower :#2007.0206E

Dear Ms. Olague:

The West of Twin Peaks Central Council is an umbrella organization of 18 neighborhood organizations.

On June 23, 2008, our organization voted unanimously to support the West of Twin Peaks Improvement Association and Midtown Terrace Homeowners Association in requesting an extension of the public comment period for 60 days. Speakers testified that neighbors had not been properly noticed, and that the complexity of the project required neighbors to seek outside counsel and expertise to help them analyze the project.

Further, it was stated that Sutro Tower is an industrial use in a residential neighborhood, and the rapidly changing technology to digital from analog and other technological advancements demand an impartial and fair analysis as to whether Sutro Tower itself is needed.

The West of Twin Peaks Central Council respectfully requests the Commission to extend the public review period, and continue the item if necessary so that neighbors have an opportunity to petition their government and discuss with project sponsor mitigation for another large expansion project on Sutro Tower.

Sincerely,

Denise LaPointe, President

Cc: Commissioner Ron Miguel
Commissioner Mike Antonini
Commissioner Bill Lee
Commissioner Kathrin Moore
Commissioner Bill Sugaya
Commissioner Gwyneth Borden

MEMBER ORGANIZATIONS: Balboa Terrace • Forest Hill • Forest Knolls • Greater West Portal
Ingliside Terraces • Lakeshore Acres • Lakeside Property Owners • Merced Manor • Midtown Terrace
Mirafloza Park • Monterey Heights • Pinelake Park • St. Francis Homes • Sherwood Forest
Twin Peaks Improvement • Westwood Highlands • Westwood Park

June 25, 2008

Bill Wycko
Acting Environmental Review Officer
San Francisco Planning Department
1650 Mission St., Suite 400
San Francisco, CA 94103-2479

RECEIVED

JUN 25 2008

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
OPERATIONS

Re: Sutro Tower Digital Television Project Draft Environmental Impact Report
Case No. 2007.0206E, dated May 17, 2008

Dear Mr. Wycko:

I am a homeowner and resident in the Midtown Terrace neighborhood and am writing because the above-referenced DEIR fails to comply with the requirements of the California Environmental Quality Act ("CEQA"). Among the DEIR's legal deficiencies which deprive city agencies and the public of accurate and sufficient information with which to evaluate environmental effects are the following:

PROJECT SPONSOR'S OBJECTIVES ARE MISLEADING BECAUSE THE PROJECT IS NOT NECESSARY TO COMPLY WITH FCC REQUIREMENTS
The Project Description mistakenly suggests the project is necessary to comply with the Federal Communications Commission's (FCC) mandate to cease analog television transmission on February 17, 2009 and switch to digital transmission (DEIR pp. 17 – 18). **In fact, Sutro Tower is able to broadcast digitally and has had this capability since the first DTV project in 1998.** The ability of Project Sponsor to meet the FCC requirement to switch to digital transmission is confirmed in the DEIR's "No Project" alternative discussion found on pp. 76 through 79. Some alterations may be necessary to add auxiliary antennas if there were no project, but such an addition would be much smaller in scope than the proposed project.

PD1

THE PROJECT DESCRIPTION IS INADEQUATE BECAUSE THE PHYSICAL DESCRIPTION AND DISCUSSION OF PROJECT CHARACTERISTICS ARE INACCURATE, INCOMPLETE, AND MISLEADING

- The DEIR impermissibly segments the Proposed Project from the previous DTV project in 1998-99, which the DEIR itself describes on p. 23 "as part of the first phase of Sutro Tower's conversion to digital television broadcasting." The previous EIR also impermissibly segmented the Proposed Project which Project Sponsor clearly anticipated. Such segmentation deprived the City's decision-makers and the public of the opportunity to consider the DTV project as a whole, its total potential impacts, and mitigation measures which might have avoided the need for some aspects of the Proposed Project.

PD3

- The Project Description found on pages 15 through 27 is incomplete because it omits mention and descriptions of numerous equipment pads, enclosures, rooftop additions,

PD6

four diesel fuel tanks with a combined capacity of over 19,000 gallons, and approximately 200 antennas that represent a very significant expansion of Sutro Tower over the past 35 years. The DEIR must contain a complete physical description of Sutro Tower, so the public can appreciate the additions that have been made since the original 1966 conditional use permit was granted. That original conditional use authorized the construction of

"[o]nly two new structures, namely a single transmitter tower and a building to house incidental machinery...in general conformity with the plans and exhibits filed with this application."

The DEIR states on p. 25:

"...the transmission building at the base of the tower cannot be expanded without an amendment to the facility's conditional use authorization. Any expansion to the transmission building or any alteration, replacement, or installation of new equipment requiring an expansion to the transmission building would therefore constitute a separate project under CEQA and be subject to additional environmental review and public hearings before the Planning Commission and potentially the Board of Supervisors"

Despite this statement, there is no discussion as to why the expansion of the rooftop enclosure by 50%, which represents a 10.5 foot extension in height of the original transmission building, would not constitute an expansion of the transmission building. In addition to the existing rooftop enclosure, the transmission building has been expanded in the past by the addition of several concrete pads, some with enclosures, to accommodate additional equipment. Photographs of the current state of the transmission building and its immediate surroundings would provide the reviewing agency and public with an accurate representation of the additions to the original structure. There is also not adequate discussion of why the new equipment cannot fit into the existing transmission building, especially if transmission equipment related to the analog antennas can be removed.

- The description of the Project Setting on pp. 26 through 27 neglects to mention and discuss the fact the surrounding residential neighborhood is also burdened with 5 other antenna facilities on Twin Peaks, Olympia Way, two on Palo Alto Ave., and at Twin Peaks Reservoir (see photos attached as Exhibit A).
- The description of the smaller-scale antennas and ancillary equipment on Sutro Tower that may need alteration or replacement in the future misleadingly attributes ownership of these antennas primarily to television and radio stations or public safety tenants. The description fails to provide information about the fact private telecommunications tenants own approximately 92, or almost half, of the antennas on Sutro Tower (DEIR pp. 24-25). The DEIR also fails to discuss the fact that "much of the economic benefit of the tower may now derive from the 120 or so additional specialty antennae which are probably used more for communication purposes than television. Many of these 120 antennae could still operate on far shorter towers" (see Exponent Failure Analysis Memorandum, dated October 19, 1999, attached as Exhibit B).

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- The discussion of Approvals Required on p. 27 and compliance with Zoning requirements of the Planning Code is inadequate in that:

1. Already discussed above is the fact the expansion of the rooftop enclosure of the transmission building can be viewed as requiring a new conditional use, especially given the inaccurate statement on p. 34 that "the transmission building is 35 feet tall and complies with the height and bulk limits." This is inaccurate because on the existing rooftop enclosure, which the project proposes to expand, is described on p. 26 as being 10.5 feet high, bringing the height of the transmission building and rooftop enclosure to 45.5 feet. This combined height is in excess of the height limit and in violation of the maximum building height in the RH-1D district.

2. Even if a determination were made that the proposed project is not in violation of the original Conditional Use permit, that permit requires compliance with Section 209.6 as stated on p. 27 of the DEIR. The DEIR fails to mention, however, that Section 209.6 authorizes communication facilities to be conditionally permitted in an RH-1(D) district if "**operating requirements necessitate placement in the district** (emphasis added). No discussion is made in the DEIR as to which operating requirements necessitate the location of the DTV antennas on Sutro Tower. Further, no facts are offered to prove that operating requirements necessitate the placement on Sutro Tower of the "14 new 36-inch by 30-inch by 2-inch panel antennas" and new 2 foot microwave dish for the two new high-speed wireless data service tenants.

- The description of Project Sponsor's Objectives on pp. 29-30 is inaccurate and misleading in that:

1. Project Sponsor does not need a project of this scope to comply with the February 2009 FCC deadline for the cessation of analog transmission and transmission of digital television signals only because Sutro Tower has been broadcasting digital television signals since the first DTV project in 1998.
2. At most, Project Sponsor would need to add some auxiliary DTV antennas to provide continuous, uninterrupted television broadcasting.
3. Project Sponsor does not need to replace its current DTV antennas in order to comply with Building Code criteria for "essential structures". There have been numerous additions to Sutro Tower since it was classified as an essential structure in 1997. Project Sponsor could have, and may still in the future, elect to do whatever structural work is necessary to meet Building Code wind resistance requirements for an essential facility. In fact, it would be useful to have a discussion in the DEIR as to why Sutro Tower has not had to meet such requirements during the years since it was declared an essential facility in 1997.
4. Project Sponsor fails to explain why it is necessary to add a new antenna truss between Levels 3 and 4 rather than utilize the existing truss that was added below Level 2 in 1998.

PD9

PD10

PD1

THE DEIR IS INADEQUATE AND MISLEADING BECAUSE THE ENVIRONMENTAL SETTING AND IMPACTS DISCUSSION PROVIDES INSUFFICIENT AND INACCURATE INFORMATION

- Figure 8, a photosimulation of a closer view of the proposed additions shows a side view of the existing and proposed DTV antenna masts, depriving the public and decision-makers of an accurate, frontal view of the visible impact of the addition of a second antenna mast.
- The DEIR admits on p. 42 that “the proposed new set of antennas between Levels 3 and 4... would be noticeable only upon relatively close inspection, when in relatively close proximity to the tower” but does not provide any close photosimulations of that view. With thousands of homes in the immediate residential neighborhoods surrounding the Tower, those residents would be most impacted and most interested in such a view.
- The conclusion of no significant impacts related to visual quality fails to appreciate the visual impact on thousands of neighborhood residents and to take into account the cumulative impact on those residents of the increase in antennas from the original 11 to the current 200+, plus the unknown number of future additions described in the DEIR.
- The DEIR inaccurately and misleadingly states on p. 58 that the proposed project would bring Sutro Tower up to current FCC standards. Sutro Tower’s General Manager stated in a community meeting on June 23, 2008, that the FCC has not indicated Sutro Tower does not currently meet the February 2009 requirements for DTV broadcasting.
- The DEIR refers repeatedly in its Geology, Soils, and Seismicity section to a 1969 study done of Dames & Moore, but does not discuss whether the results of that almost 40 year old study are still valid with what is currently known about seismic safety.
- The DEIR’s section of Radio Frequency Radiation (RFR) does not include the fact that on 3 separate occasions, DPH has taken measurements in the neighborhood that exceeded FCC safety standards for public exposure:
 1. An official of DPH stated in a declaration, dated October 29, 1997, that he found a “hot spot” at ground level on a residential street in Midtown Terrace (see attached Exhibit C). This declaration was made in support of the City Attorney’s Brief against FCC Preemption of State and Local Regulation of Broadcast Facilities.
 2. On another occasion in approximately 1998, this same DPH official took a reading on the ground floor of the undersigned’s home on Greenview Court that exceeded the FCC safety standard.
 3. It is the undersigned’s understanding that the same official took yet another reading on the Summit Reservoir in approximately 1998 that exceeded the FCC safety standard.

Sutro Tower’s General Manager witnessed both incidents in items 2 and 3 above, and possibly witnessed the incident in item 1.

- The DEIR’s discussion of the potential for RFR readings to exceed the FCC public exposure limit on pp. 64-67 does not provide information about where this unsafe exposure would occur in the neighborhood: around Summit Reservoir, near a home, near Clarendon School? It also does not state what the maximum exposure will be

V1

PD1

GEO7

HAZ2

HAZ3

under the Table of Contribution and how long the antennas would stay at that maximum.

- The DEIR’s discussion of the use of a Table of Contributions is inadequate because it does not provide information about how the limits imposed would be implemented and enforced.
- On p. 65, the DEIR refers to the fact auxiliary antennas will be utilized for periods of time during construction, but does not provide information regarding how long such use would occur.
- On p. 67, the DEIR states access to the rooftop of the transmission building is restricted but does not state the reason that particular area poses a health risk. Again, since there are no photos of that rooftop, the public and decision-makers are deprived of valuable information with which to evaluate the environmental impacts of the Proposed Project.
- The DEIR discussion of the Risk of Fire on pp. 70-71 is inadequate because
 1. It fails to describe the “fire danger” that would cause construction “work [to] immediately cease and additional precautions taken.”
 2. It fails to discuss any fire risk associated with the 19,000+ gallons of diesel fuel stored in 4 separate fuel tanks both above and below ground.
 3. It fails to mention and discuss the Comprehensive Report on Sutro Tower by San Francisco Battalion Chief John J. Lee, dated July 12, 2000, which covers fire-related hazards relating to Sutro Tower (see attached Exhibit D).
- The DEIR fails to discuss neighborhood concerns about noise, both from equipment located at Sutro Tower and the wind blowing through the structure and the many cables and guy wires. It also fails to discuss how the current noise situation might change with a new configuration of guy wires and cables. Neighborhood residents voiced some of these concerns during a meeting with Sutro’s General Manager in 2005 when an application was filed to place new generators outside of the transmission building on enclosed equipment pads.
- The DEIR also fails to discuss the risk of falling objects during the construction phase and during future maintenance, given the fact there has been a history of items falling from Sutro Tower into the residential neighborhood below, both on Farview Court and upper Dellbrook. See statement attached as Exhibit E from a resident on Farview Court whose living room window was broken when a roll of metal tape fell from the tower, through the window, and into his living room during the last DTV project.

THE DEIR’S DISCUSSION OF PROJECT ALTERNATIVES IS INADEQUATE BECAUSE IT FAILS TO DISCUSS ALTERNATIVES FOR THE 14 NEW ANTENNAS AND NEW MICROWAVE DISH FOR THE TWO NEW WIRELESS DATA SERVICES

The DEIR fails to consider the alternatives to the Proposed Project fully and adequately. No discussion is made of alternatives for the 14 new antennas and new microwave dish for the new non-television or radio tenants. In addition to failing to discuss whether these new antennas meet the necessity provision under Planning Code Section 209.6 mentioned above, the DEIR fails to discuss fully alternatives to this aspect of the Proposed Project.

HAZ4

FIRE1

IS1

HAZ6

ALT1

AS ENUMERATED ABOVE, THE INADEQUACIES OF THE CURRENT DEIR ARE CONSIDERABLE AND SUBSTANTIAL, RENDERING IT UNCERTIFIABLE. FOR ALL OF THE FOREGOING REASONS, THE UNDERSIGNED RESPECTFULLY REQUESTS THAT THE CITY RESPOND TO ALL PUBLIC COMMENT, SUBSTANTIALLY REVISE THE DEIR ACCORDINGLY, AND RECIRCULATE THE REVISED DEIR FOR ADDITIONAL PUBLIC COMMENT AS REQUIRED BY CEQA.

Respectfully submitted,



Siu Ling ("Shaw-lin") Chen
49 Greenview Court
San Francisco, CA 94131

Enclosures: Exhibits A through E

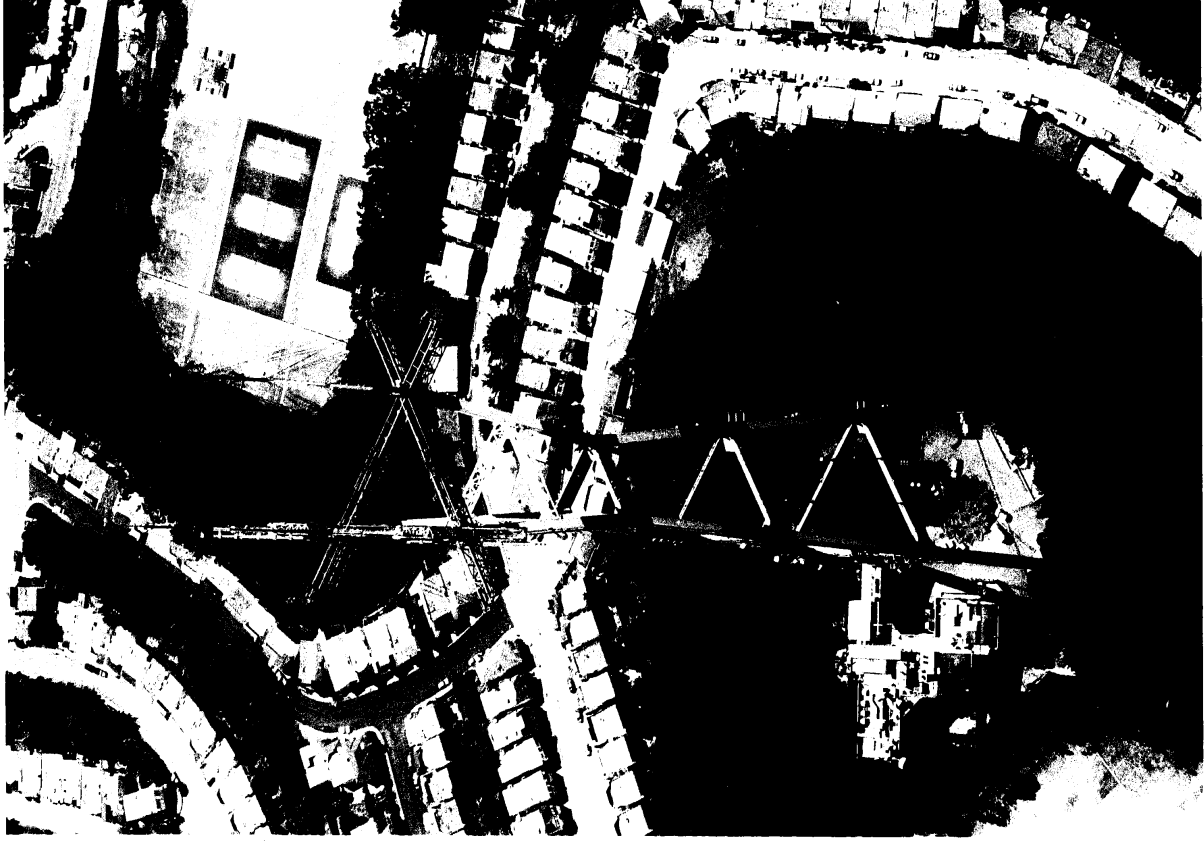
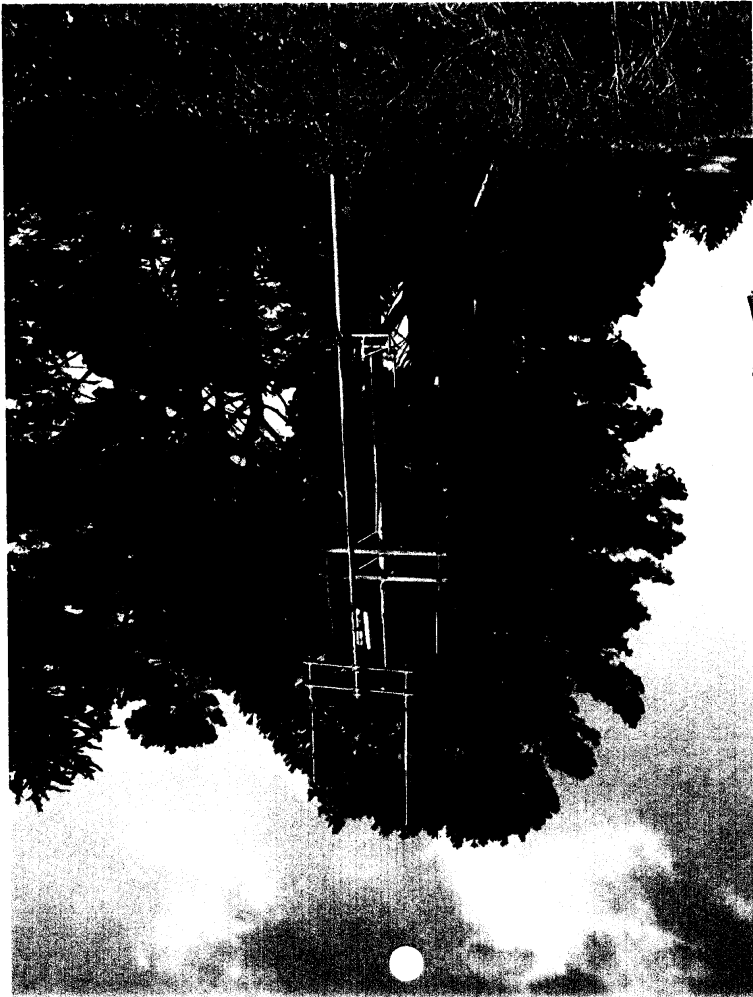
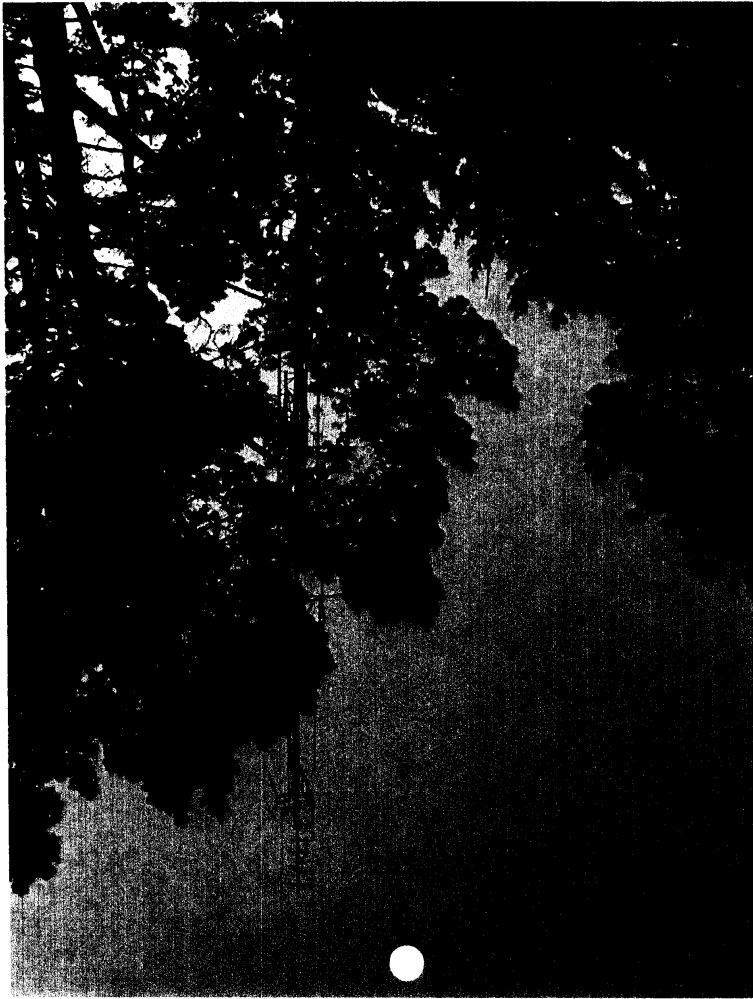


Exhibit A-1



Palo Alto & Mervin
Exhibit A-2



Palo Alto
Exhibit A-3



Twin Peaks Reservoir
Exhibit A-4



Olympia Way
Exhibit A-5



Twin Peaks

Exhibit A-6

DRAFT

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MEMO REPORT

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To: Christine Linnenbach, Esq.

Fr: Dr. William E. Murray, Jr., Manager, Risk Audit

Date: 10/19/99

RE: Sutro Tower EQE Seismic Risk Assessment & Probabilistic Risk Assessment (PRA)

Ref: EQE Report "Seismic/Structural Analysis of Sutro Tower" (6/99)

Background

I reviewed the EQE study on the Sutro Tower Seismic risk assessment and find it be a thorough professional technical study of the collapse hazard posed by this 770 ft. structure. I would note, however, just as the chairman of the peer review committee, Prof. H. Krawinkler of Stanford University did, I have not reviewed or had access to any of the detailed calculations that lead the author to his conclusions. I am assuming they are substantively correct.

To summarize the study, Sutro Tower with the recommended seismic strengthening, can be expected to endure the "1000 year" earthquake event. Translated in common English, as long as the earthquakes were slightly less severe than the 1906 earthquake, the tower could be "expected" (with no surprises) to remain standing. Conversely, there is some probability of a more severe event, in which case the tower might fail. If you look deeply in the EQE report (page A-8), a 1,000 year event (which seems a long time) actually translates into a 5% chance of a more severe event over the next 50 years (remaining economic life of Sutro Tower). Is this a small 5% chance of exceedence worth taking over the next 50 years and by whom?

What Are the Risks?

While we have given some qualitative consideration to the radiation hazards and pollution hazards posed by the on site diesel fuel tanks above the Summit Reservoir, I limit my discussion to the seismic risks. Were Sutro Tower to collapse, its fall radius of 770 feet (I have ignored the additional 200 feet of three antennae which are relatively lighter) is evident on the map of the neighborhood (See Exhibit 1). There are hundreds of households within the circle, some of

INT8025.000/A.070/1099/WEM1

Exhibit B

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which would be destroyed or badly damaged. Of the 360 degrees of the fall circle in Exhibit 1, there are only two zones, totaling 37 degrees out of 360 degrees, where the tower could miss a household. One of these zones includes the Summit Reservoir (See Exhibits 2 and 3; the shadow of the tower in these photographs is a proxy for the fall imprint) which would be a highly undesirable landing zone, considering the water would be needed for other uses in case of a major earthquake.

Probabilistic Risk Assessment (PRA)

The hazards of siting facilities with potential catastrophic risk (e.g., nuclear power plants, LPG ports facilities, chemical plants, etc.) are usually handled by probabilistic risk assessments (PRA) which attempt to balance the hazards with the benefits. The idea is to take precautions sufficient to render the risks (to third parties) posed by a facility as *de minimis*, at a trifling level.

Reviewing the PRA literature¹, *de minimis* risk by modern consensus, is about:

“One chance in one million per year per individual.”

In other words, if the risk is reduced or can be shown to be at that level, it is considered “trivial” and not in need of further consideration. If it can not be reduced to a trivial level, other actions should be considered, including possibly locating the facility elsewhere.

Is the Risk Posed by Sutro Tower *de minimis*?

One could read the EQE report to the effect that each residence within the fall zone of the tower is taking a risk of approximately one part in 1,000 per year since a more severe earthquake could occur in any year over the next 50 years. In short the risk, although not large, is still far above the trivial level. Since many of these houses and residents predated the tower, as a practical matter, the tower risk is also involuntary.

If not Trivial, What Then?

Generally one balances the risks with the benefits along the lines of a four step process²:

1. Eliminate any risk that carries no benefit or is easily avoided.
2. Eliminate any large risk (U) that does not carry clearly overriding benefits.
3. Ignore for the time being any *de minimis* (I.) or trivial risk that is not included in No. 1.

¹ Kumanoto, H and Henley, E. “Probabilistic Risk Assessment and Management for Engineers and Scientists,” IEEE Press, New York 1996 (ISBN 0-7803-1004-7) Chapter 1.
² *Ibid*

DRAFT

4. Actively study risks falling between the limits of U and L, with the view that the risk of taking any proposed action should be weighed against the risk of not taking that action.
Apply this four step concept to Sutro Tower and the adjoining neighborhoods in the fall zone.

1. Sutro Tower does carry some benefits: financial ones to Sutro Tower, Inc. as well as to the SF Bay area in wide area TV reception. While its outright elimination is not warranted on its face, the question is: How are these benefits balanced against the risks to the neighborhood affected and to a certain extent to the City of San Francisco? Are the risk costs and economic benefits equitably spread?

2. While Sutro Tower is not exactly a large enough risk³, its benefits are far short of overriding. This is a late 1960 vintage analog TV transmission tower in an era which is moving toward direct satellite, cable television and digital television. In fact much of the economic benefit of the tower may now derive from the 120 or so additional specialty antennae (See Exhibits 4 and 5) which are probably used more for communication purposes than television. Many of these 120 antennae could still operate on far shorter towers.

3. By the EQE report the risk already falls above the *de minimis* or trivial level and can not be ignored.

4. The risks⁴ of Sutro Tower then fall in the gray zone (above trivial but less than large) and should be justified using the well established PRA methodology. Given the benefits that derive from this tower, are there alternative ways they can be achieved without, in effect transferring them to the residents on Clarendon Ave., Dellbrook Ave., Panorama Dr., Farview Ct., Palo Alto Ave., etc.?

³ At the risk of sounding overly caudal, its collapse during a major seismic event would probably only add incrementally to the damage and fatality count.
⁴ As part of the PRA, the electromagnetic and pollutions hazards should also be quantitatively addressed.

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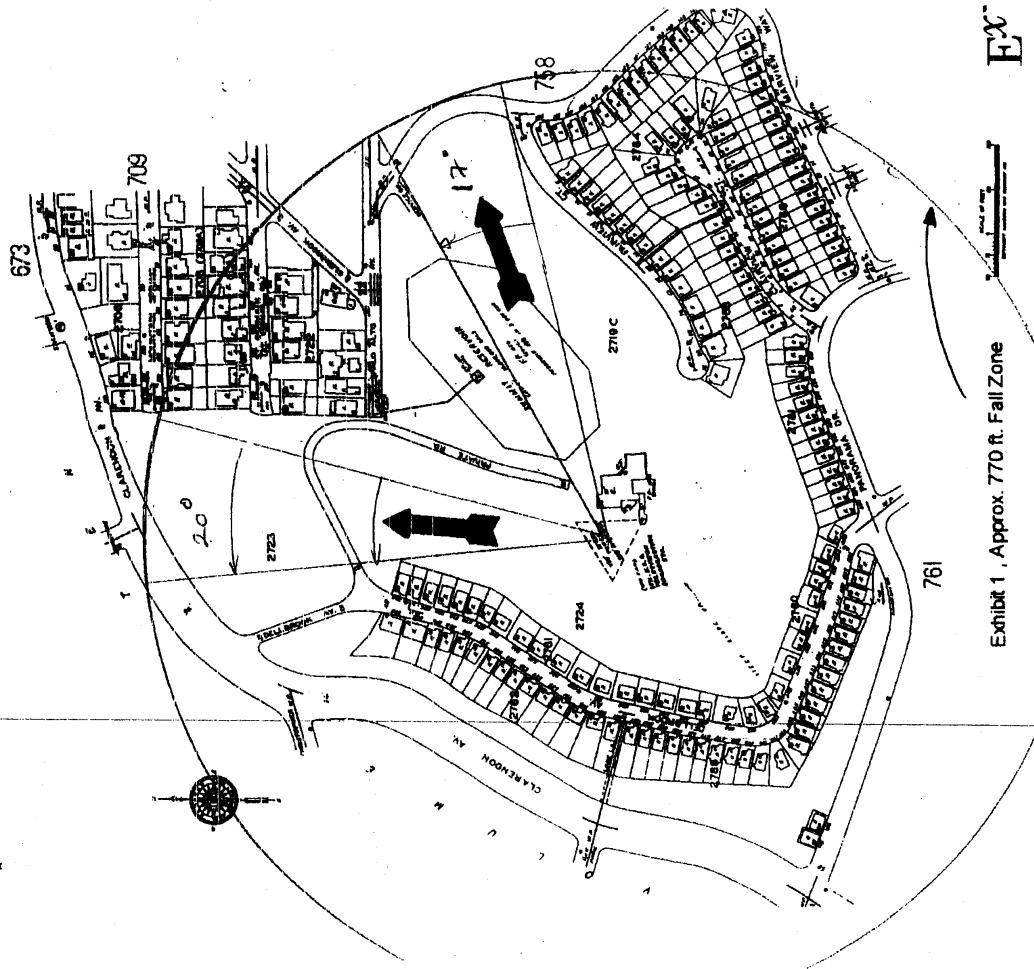


Exhibit 1. Approx. 770 ft. Fall Zone

FC

Declaration of Richard J. Lee, M.P.H., C.I.H., C.S.P.
in Support of Comments
on Behalf of the City and County of San Francisco
Regarding Preemption of State & Local Regulation of Broadcast Facilities

I, Richard J. Lee, do declare:

1. I serve as a Senior Industrial Hygienist in the San Francisco Department of Public Health's Bureau of Environmental Health Management. I have worked for the Department of Public Health for ten years. I received a Master's degree in Public Health from the University of California at Berkeley in 1979. I have been certified by the Board of Certified Safety Professionals and the American Board of Industrial Hygiene.
2. I am the program manager for the Bureau of Environmental Health's Special Projects program. As program manager, I supervise staff who respond to hazardous material incidents. In addition, I am responsible for disaster planning, oil spill planning, and responding to other hazards created by environmental toxins.
3. On several occasions over the past ten years, I have been involved in investigating concerns that the residents of neighborhoods in proximity to Sutro Tower have experienced rates of cancer higher than would be expected for the general population in San Francisco. In connection with these and other concerns, I have performed field tests on several occasions to measure levels of radiofrequency radiation in the Sutro Tower area.
4. I understand that levels of radiofrequency radiation generally dissipate from their source according to the law of inverse squares. However, in reviewing technical literature about radiofrequency radiation, I have also learned that it is possible for "hot spots" to occur in particular locations in response to particular circumstances.

Declaration of Richard J. Lee
City & County of San Francisco

Sub. h. a. C.

5. On one occasion, I recall finding a "hot spot" at ground level on a public street in the vicinity of Sutro Tower. I measured levels of radiofrequency radiation that exceeded the then-applicable ANSI standards in proximity to a metal street sign. This sign was located at Farview Court. Based on my understanding that metal can concentrate radiofrequency radiation emitted by nearby sources, I reported the incident to the Department of Public Works and requested that the metal street sign be replaced with another material. It is my understanding that the Department of Public Works did replace the sign.
6. I do not recall the precise date on which I measured the hot spot at Farview Court.

Although I am reviewing my records, to date, I have not been able to find any written documentation of these findings.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 29, 1997

Richard J. Lee
Richard J. Lee

Declaration of Richard J. Lee
City & County of San Francisco

Page 2

SUTRO TOWER

By
Battalion Chief John J. Lee

Comprehensive Report:

1. Pre-fire plan for the wooded area around Sutro Tower
2. Hose leads and special hazards
3. Hazards of Sutro Tower Collapse
4. Sutro Tower personnel rescue
5. Sutro Tower fuel tank hazards
6. Fire prevention tactics

1. PRE FIRE PLAN

Sutro Tower sits on a knoll at the end of La Avanzada Street. There are thick groves of Eucalyptus trees and brush on the west and north sides of the tower. To the south there are fewer trees and light brush. On the east there are just a few trees and some light brush. Summit Reservoir owned by the SF Water Department occupies the largest area east of the tower and contains 14 million gallons of drinking water. (See Exhibit A and A1) There are two-story, wood-framed homes along Dellbrook Street with a thick grove of Eucalyptus trees from Panorama Street to Sutro Tower. As Dellbrook turns south and moves away from La Avanzada, two-story detached wood-frame homes line the street. Sutro Tower is up the hill from the back yards of these homes with thick groves of Eucalyptus buffering Sutro Tower.

An ocean breeze typically blows at approximately fifteen miles per hour from the west. It intersects the Eucalyptus grove at Panorama and blows east over Sutro Tower and down the lee side of Mount Sutro.

There are high-pressure hydrants along Clarendon Avenue with low-pressure hydrants disbursed systematically throughout out the entire neighborhood. (See Exhibit B)

Although the Eucalyptus grove is usually green and wet with moisture, it is a serious fire hazard. Since the grove is thick and surrounds many homes the smallest of fires should receive the maximum effort. With any fire, a command post should be immediately established and the ICS system put into place. A division should be established on each flank with a chief officer in charge. Additional trucks, the hose tenders, and the squirt should be special called; and master streams should be established into the tall trees. If a

Exhibit D

fire cannot be quickly confined, the California Division of Forestry should be contacted for air support. Both rescue squads should be dispatched to assist with search, rescue, and evacuation. SFPD should close off the area to traffic and assist with evacuation in the surrounding area.

High-pressure hydrants on Clarendon should be used along with five-inch hose from the hose tenders to supply the master streams. Each flank should be worked toward one another until the fire is confined and extinguished. Standard wildland fire fighting techniques should be used.

On the lee side of the fire, several engine companies should patrol the neighborhood extinguishing any fires resulting from flying brads. A Medical division should be established in a safe area to assist the fire fighting effort and the public.

2. HOSE LEADS AND SPECIAL HAZARDS

The Eucalyptus trees grow in steep areas near the top of the hill. The terrain is uneven and slippery with thick foliage containing poison oak. There are no fire roads. Although there are low-pressure hydrants throughout the area, it may be necessary to extend five-inch hose from the high-pressure hydrants on Clarendon Avenue.

The Eucalyptus trees burn very hot and have a propensity to snap and fall. Firefighters should take special care to watch for such hazards. Leaning trees or trees with large overhangs should be avoided.

3. HAZARDS OF SUTRO TOWER COLLAPSE

Sutro Tower is 977 feet tall from the ground to the top of the highest antenna. (See Exhibit C) The tower consists of approximately three million tons of steel above ground and fifteen million tons of concrete and steel below ground. The center of gravity for the tower complex sits below ground, which makes the likelihood of the tower complex falling over very small. One engineering study, using the largest earthquake that could occur in a one thousand-year period, suggests that the tower would not fall but could have antennas collapse. However, other engineering studies suggest that the tower's center of gravity would transfer to the area of the third level if the tower disconnected from the base. With the center of gravity at the third level, the tower could collapse onto the surrounding area.

Since there is no consensus of opinion regarding the failure of the tower, to be safe the drop zone for the tower will be considered as 1000 feet from the current center of the existing tower. Furthermore, the tower sits atop the south knoll of Mount Sutro. If the

tower fell it would bounce and slide down the hill for some distance. Therefore, as a safety factor, the drop zone should be considered as approximately 1300 feet rather than 1000 feet. (See Exhibit D)

Out of the 360 degrees in the fall zone there are only 37 degrees in which the tower could fall without crushing homes. (See Exhibit E) Seventeen degrees of the 37 degrees would drop the tower on Summit Reservoir. A direct hit on Summit Reservoir could possibly cause a failure of the reservoir with flooding downhill. The SF Water Department should be contacted to plan for such an event.

Upon arrival at the drop area of the tower, a command post should be set up and the ICS system put into place. A division should be set up on each side of the collapsed tower. One RC should be assigned to each division to set up a medical area. PG&E should be contacted to cut power to the tower and gas and electricity to crushed homes. The Communication Center should be assigned the task of assembling heavy equipment to dismantle the tower as needed for firefighting and rescue. SFPD should be assigned the task of crowd and traffic control. The department of building inspection and DPW should be called to evaluate the safety of surrounding buildings, streets, and city utilities.

It is almost certain that some type of fire would break out after a catastrophic collapse. The AC in charge of each division would combat the fire using standard SFPD procedures. However both rescue squads and several additional truck companies would be needed for search and rescue.

4. SUTRO TOWER PERSONNEL RESCUE

Sutro Tower has two full time riggers on staff. These men are skilled at climbing the tower and working on ropes and cables over the platforms of the tower. The riggers are available twenty-four hours a day for emergencies.

Rescue Squad One inspected the tower with the Sutro Tower General Manager, Eugene Zastrow, and concluded that the squad carries sufficient ropes and equipment to repel from platform to platform on the tower.

5. SUTRO TOWER FUEL TANKS

Sutro Tower has two six -thousand gallon tanks of diesel fuel on site. The tanks have double wall construction with electronic leak monitors. Each tank is in a concrete vault capable of holding the contents of the tank. Both tanks are buried in the ground about half way between the guardhouse at the main gate and the transmission building. The tanks are below the pumps that are located in the emergency power generator room. Any

loss of suction in the fuel line will cause the fuel to fall back into the tank rather than spill outside the tank onto the ground or into the building.

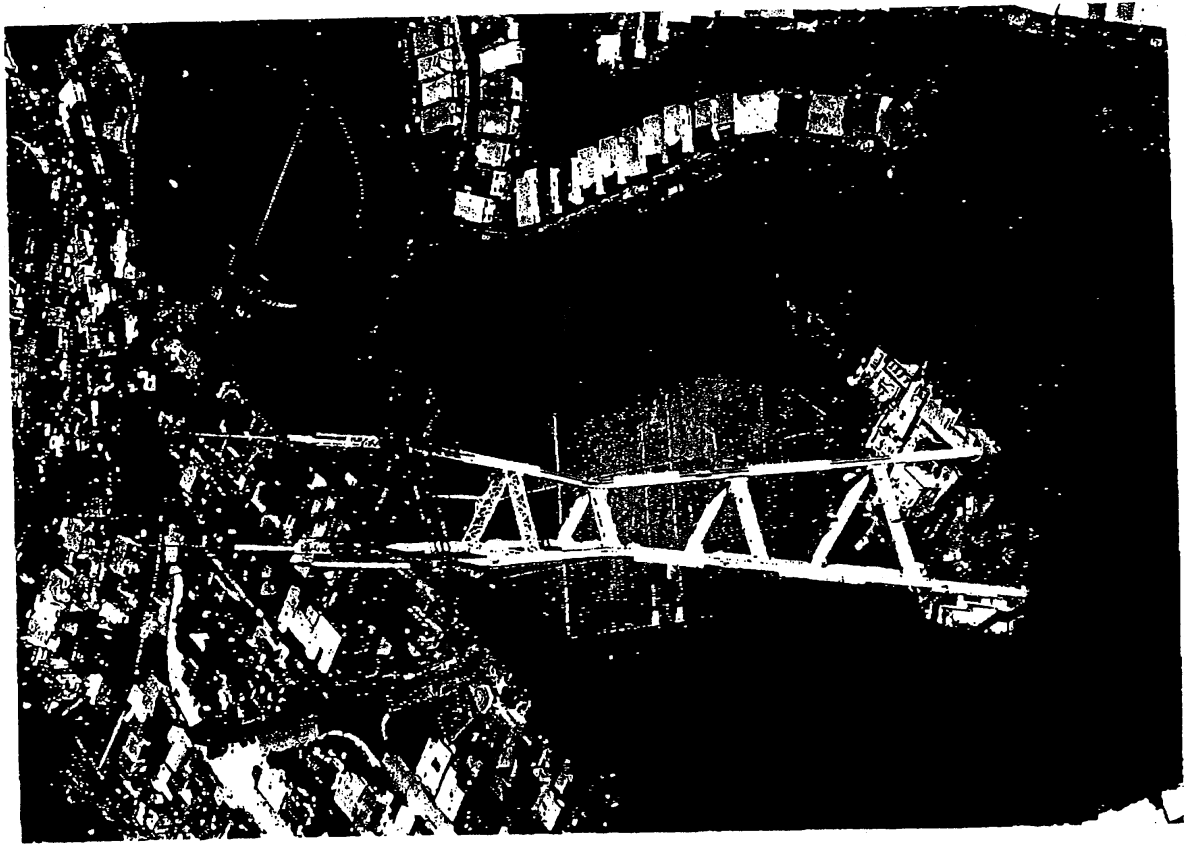
Should a diesel fire break out, there is little likelihood that it would involve the diesel tanks. Power to the diesel pumps would be shut off and AFFF foam used to extinguish free burning fuel.

6. FIRE PREVENTION TATICS

A chain-link fence surrounds the Sutro Tower complex with razor wire on top. The chain-link fence is electronically monitored and guarded twenty-four hours a day. Inside the fence there is additional electronic surveillance equipment to detect unwanted intruders. All buildings, gates, and access points are locked when personnel are not present at the tower.

The Sutro Tower transmission building is constructed of steel reinforced concrete and has a fire detection system with various combinations of smoke and heat detectors. Some of the transmission areas have Halon extinguishing systems.

To reduce the fire hazard in the forest, the forest should be thinned and fire trails should be cut.



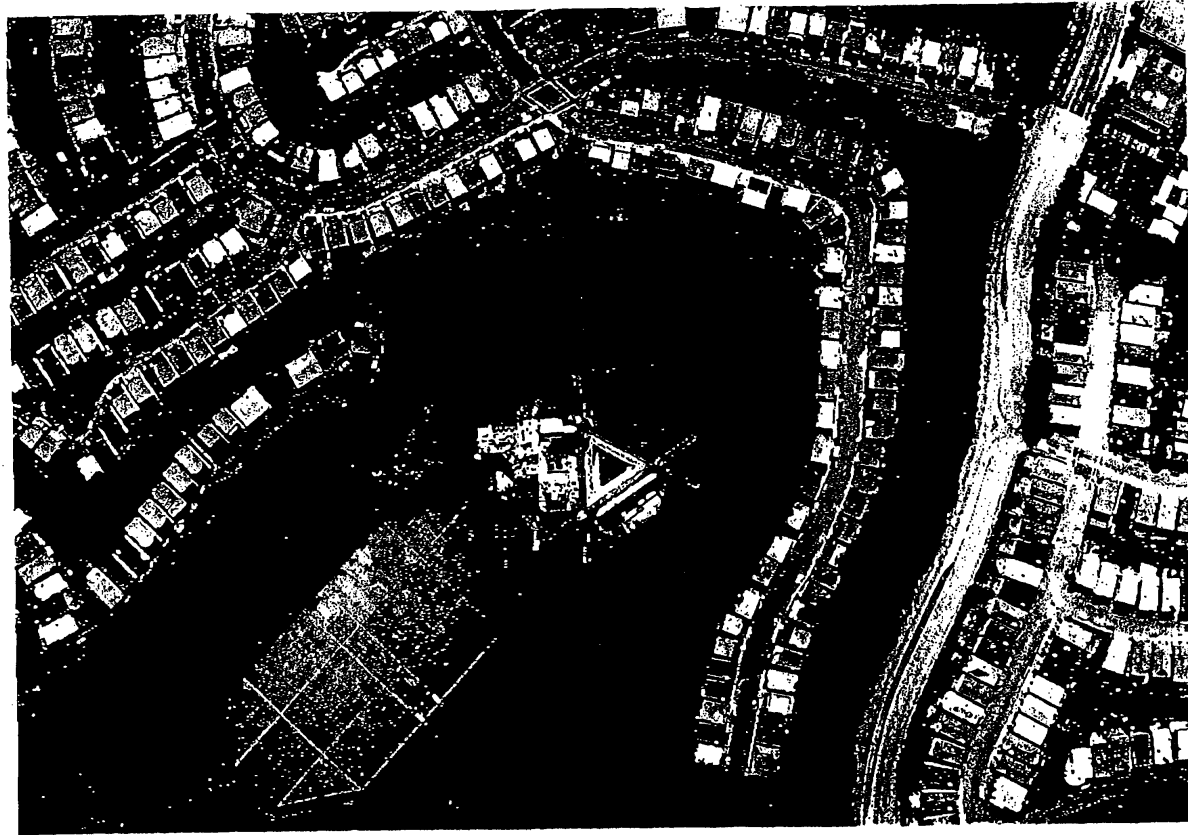
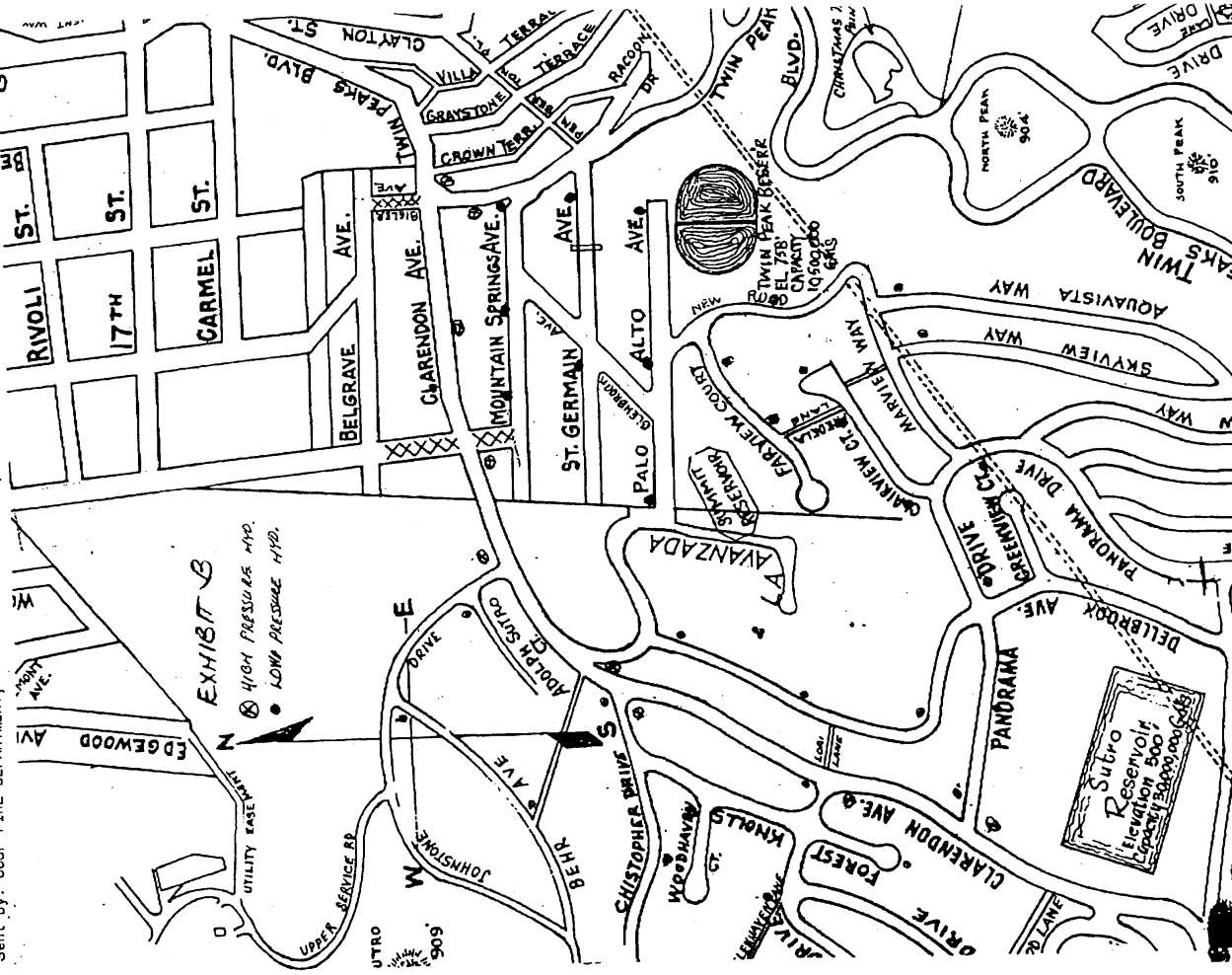


EXHIBIT 9:1



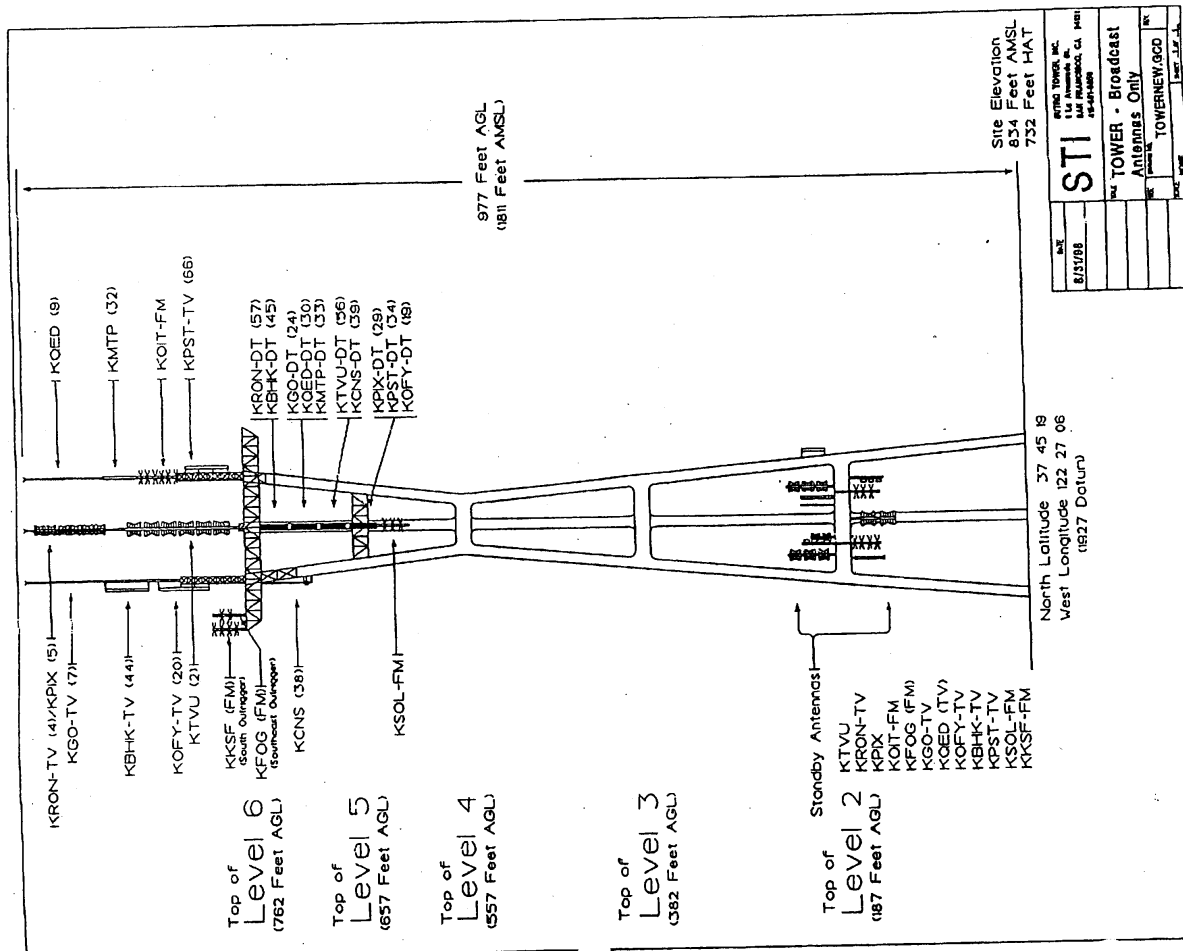
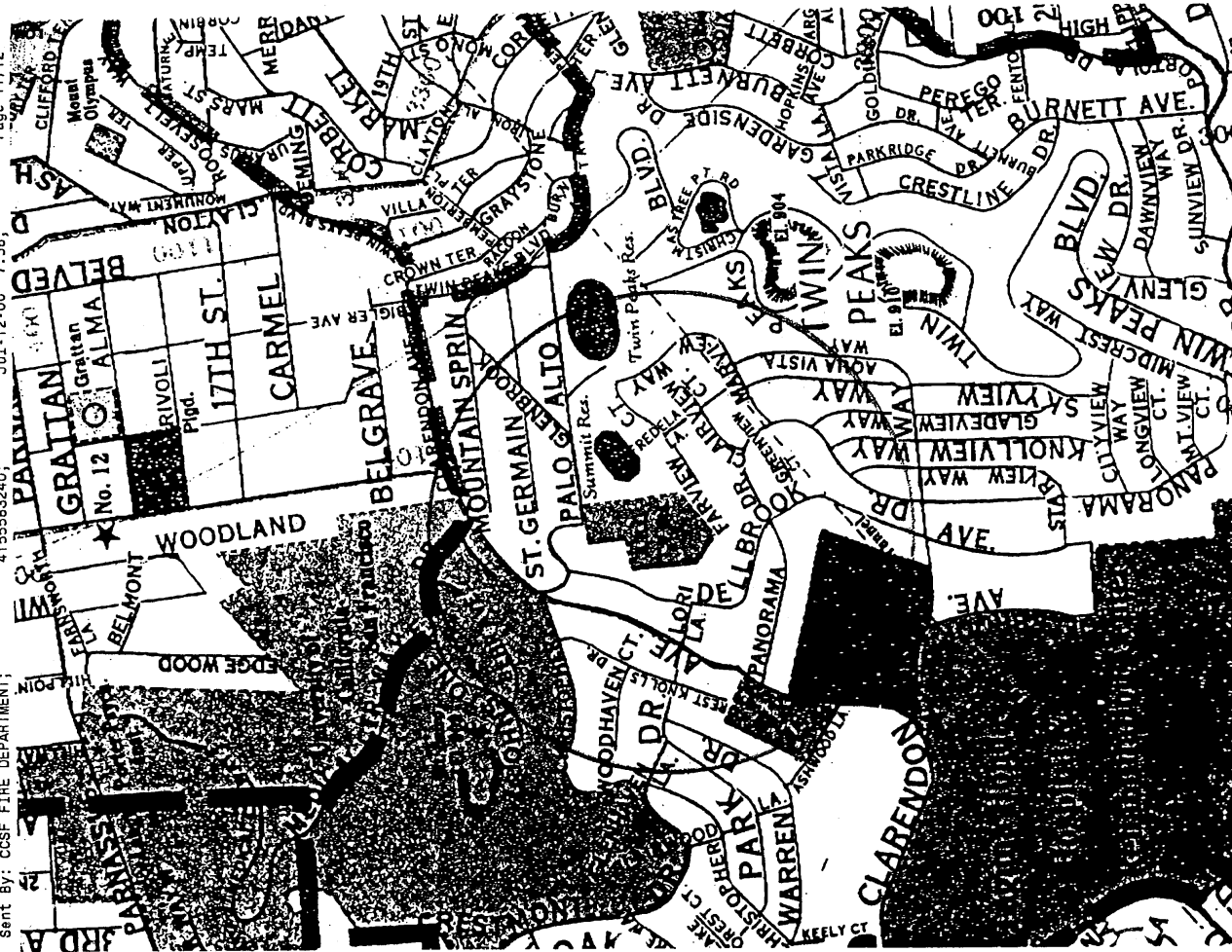


EXHIBIT C

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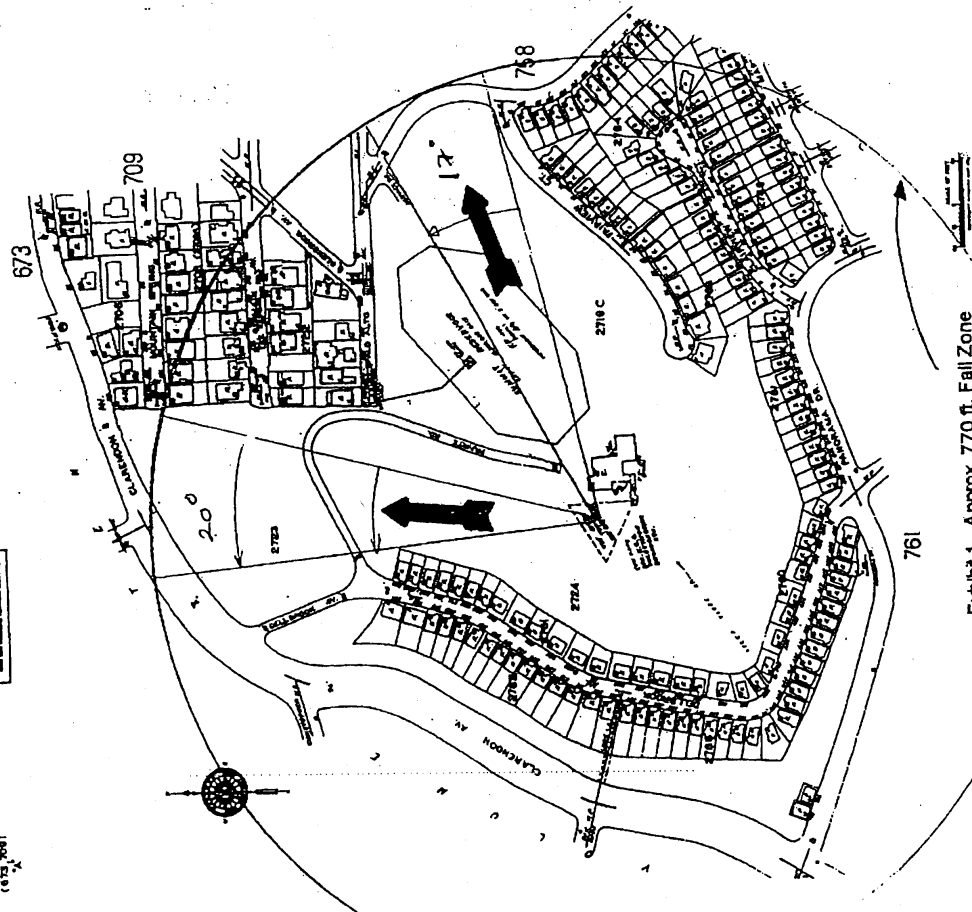


Exhibit 1, Approx. 770 ft. Fall Zone

EXHIBIT E

ON 28 SEPT. 98 A NEW 3/4" BY 3 OR 4 foot
COILED TO 6" METAL STRAP
DROPPED BY A WORKMAN ON THE TOWER
BROKE A 12" X 18" PANE IN MY DEN WINDOW
AT 50 FARVIEW CT, S.F. CA, 94151

Richard M. Burrows
San Francisco, CA 94131
415 643-3210

Exhibit E

Bill Wycko
Acting Environmental Review Officer
San Francisco Planning Department
1650 Mission Street Suite 400
San Francisco, California 94103-2479

Dear Mr. Wycko,

I live at 321 Dellbrook Avenue, well within what is called the "fall zone" of the Sutro Tower. To say that I have real concerns about the safety of the tower is an understatement. As you know, representatives of the neighborhoods adjacent to the tower and individual residents pleaded with the Planning Commission for an extension of this comment period so that we could raise money to retain consultants to independently review the work of the Sutro Tower retained consultants and experts . We were denied that opportunity.

We have no option at this point except to put our faith and well being in the hands the the SF Planning Department and the Planning Commission. There are several overarching issues that have to be at the forefront in assessing the proposed project.

1. THE SAFETY OF THE RESIDENTS OF SAN FRANCISCO SHOULD BE OF PARAMOUNT IMPORTANCE ; ANY RISK HOWEVER SMALL COULD RESULT IN A GREAT LOSS OF LIFE

The surrounding neighborhoods pre-existed the construction of the tower, my neighborhood by at least 10 years. I am relatively new to the neighborhood and had the luxury of only considering Sutro Tower to be a scar on the face of San Francisco for many years. Now it has become much more - it is literally a sword hanging over my head and the heads of my children. What I want out of this process is a guarantee from the owners of Sutro Tower, the tenants of Sutro Tower, their attorneys and consultants as well as the Planning Department that there is absolutely no set of circumstances that will result in a structural failure of the tower of sufficient magnitude to cause personal injury or property damage to the residents of San Francisco. A high standard--you bet your life--we certainly are.

2 THE HIGHEST LEVEL OF SAFETY IS WARRANTED BECAUSE OUR WELL-BEING IS BALANCED AGAINST A COMMERCIAL VENTURE OF QUESTIONABLE NECESSITY

How the tower came to be constructed and what political machinations lead to its construction are topics best left to others who have a more knowledge. A careful and objective review of this background needs to be conducted, perhaps by the grand jury.

GEO1

PD1

Whatever the justification for the tower in the first place has to be critically examined in light of the vast changes in technology over the past 42 years. Back in the mid to late sixties, a persuasive argument may existed for locating a television broadcast facility at considerable elevation. [However, as a resident of San Francisco since 1974, I know that the citizens of San Francisco did not benefit from the tower and embraced other transmissions systems as they became available. The people who suffer the most for the placement of the tower realized the least benefit.]

The DEIR does not discuss the current technology in the context of a need for the placement of the primary digital antennas in the exact spot where the analog antennas are placed. My knowledge of radio waves/ frequencies is minimal at best, but I have long been told that the analog transmissions depended upon line of sight whereas digital signals are capable of flexing and are therefore not dependent upon line of sight. This decisive difference is not discussed in the DEIR. Very simply is it absolutely necessary for the digital television signals to be broadcast from the uppermost reaches of the tower? We know that the obvious answer is NO because Sutro Tower Inc. has been broadcasting in a digital format for 10years from a location well below what is proposed.

3. THE DEIR DOES NOT ADEQUATELY CONSIDER ALTERNATIVES TO THE PROPOSED PROJECT.

What struck me as I was reading the DEIR was the cursory discussion of alternatives to the project, as proposed. It was evident that no real effort had been made to seek out real alternatives; instead "straw" alternatives were posited for which failure was preordained.

a. The ALL OR NOTHING approach was perplexing and without explanation. Why would all of the broadcast facilities currently utilizing the tower have to go to the same site? Mt. San Bruno was rejected because it could not accommodate all of the stations. Where is the analysis of the alternatives if the current constellation of stations were unbundled and spread out to a number of alternative facilities? Obviously Sutro Tower Inc. has no interest in exploring such an alternative because it is in Sutro Tower Inc.'s financial interests to hold onto the income from as many stations as possible. The Planning Department, on the other hand, should not base its exploration of alternatives on the maximization of Sutro Tower Inc.'s profits.

b. The STATUS QUO alternative did not fully explore the possibility of working with the present configuration of the digital antennas. At a community meeting held on June 23, Gene Zastrow conceded in response to my question that the FCC has never advised Sutro Tower Inc. that the digital capacity of the tower at present is in any way inadequate. If the motivating force behind the proposal is-- as represented--compliance with the FCC mandate , then the fact that this mandate has long been satisfied should be the end of the discussion.

PD2

ALT1

THE MANDATE HAS BEEN MET, so what else? Is it the need for auxiliary antennas that justifies the proposal? Where is the consideration in the DEIR of the need for auxiliary antennas? On how many occasions will the need exist for auxiliary antennas? Certainly the situation has not come up in the past 10 years because the tower has been successfully functioning without the auxiliary digital antennas. Does the FCC mandate auxiliary antennas? If so, that is not mentioned in the DEIR.

At the Planning Commission meeting held June 26 the lobbyist for Sutro Tower Inc. tried to frame the proposal as some sort of "emergency." What emergency? The **potential temporary interruption** of television reception??? Is that what we are weighing against the safety of the residents of San Francisco that television reception for the 15% of the television watching population who do not have cable or dishes might be temporarily interrupted? How patently ridiculous is that?

It is all the more ridiculous because the simple, obvious solution is to affix the auxiliary digital antennas somewhere else on the tower--perhaps where the existing auxiliary analog antennas are located. Why is leaving the primary digital antennas in place and swapping the auxiliary analog antennas for auxiliary digital antennas not a viable option? The alternative needs to be addressed.

c. The vulnerability of a single broadcast facility which virtually monopolizes the information sources is a great potential liability. A catastrophic failure of the tower would virtually isolate the greater Bay Area. A lesson learned from the tragedy in NYC is that the consolidation of communication resources in a confined area is to be avoided. The unbundling of the current set of tenants would disperse communication facilities over a broader area and assure Bay Area residents that at least some stations will be functioning in the event of a catastrophe--when functional facilities are most needed.

d. Why can't the DVD antenna beam which presently accommodates the DVD antennas become the main antenna mast?

e. Why must the auxiliary antenna beam and the 12 ton antenna beam remain vertically affixed to the tower, could these be affixed vertically and if not why?

f. Have the shadow impacts of the proposed reconfiguration been analyzed?

4. WHAT IS THE WEAKEST LINK IN THE TOWER

I am not an engineer, but common sense and simple powers of observation indicate that the the least stable, most vulnerable section of the tower is the configuration of antennas, guy wires and beams that sit at the very top of the tower. This segment of the tower was not part of the original design but was dictated by seismic concerns which surfaced after the initial approval. It cannot be disputed that this portion of the structure is now completely and totally

PD1

ALT1

PD1

IS2

unnecessary. As mentioned several times already, the present location of the digital antennas works just fine. There is no articulated need for replacement of the analog antennas with digital antennas.

If the project goes forward as proposed, a glaring deficiency in the DEIR is the lack of attention paid to the stability of this section of the tower during construction. During the phase of disassembling the existing tangle of antennas, support beams and guy wires will the structure be at any time more unstable? If so what precautions are proposed for that time--will Sutro Tower pay to relocate all vulnerable residents to take them out of harms way? Or will we be left on our own to worry and pray that the earthquake we all know is coming doesn't happen when we are even more at risk? Similar issues need to be addressed regarding stability during the installation phase of the new antennas.

If the existing analog antenna masts are replaced do the replacement masts have to be as large? Any reduction in the length of the masts translates into a shortening of the radius of the fall zone and may obviate the need for the unsightly tangle of guy wires.

Attached is an article from Broadcastengineering.com which includes a multitude of concerns and precautions that must be taken into account in connection with projects such as the one proposed and incorporate those comments.

Has the Planning Department considered the impact if one of the 200 foot tall antennas masts or a portion thereof would strike a leg or cross bar on the tower during the process of dismantling of the present antenna masts or the installation of the new antennas and antenna masts?

5. IS THE TOWER AS IT SITS TODAY UNSAFE?

The need for more reinforcement of the structure is mentioned, and the subtext hints of a type of blackmail "...if you don't let us do what we want to do with the tower we will not do the upgrades that are needed to meet current safety standards." If the tower does not meet the strictest of standards now the work necessary to bring it into compliance should be done whatever else happens. It is unconscionable to use the need to upgrade as a chit in the approval process for the proposed project. Sutro Tower Inc. represented not so many years ago that no further upgrades would be necessary if it was allowed to do then what it wanted to. What standards have changed that now require yet again, a third strengthening of the tower since 1997? Why was this strengthening project not disclosed in the DTV EIR in 1998 or the Supplemental EIRS for Sutro Tower? The need for structural upgrades is not adequately discussed--weren't the last round of upgrades sufficient? For a structure with such a huge disaster potential, **meeting minimum required** standards is not good enough.

GEO3

GEO4

A STRUCTURAL ADVISORY COMMITTEE must be convened during this approval period when there is still time to integrate all recommendations and to address all concerns that might be raised into the planning process

GEO5

6 IS THE SEISMIC STANDARD USED SUFFICIENT

If I understand the portion of the DEIR dealing with seismic safety the measure used is an earthquake of the same magnitude as the 1906 earthquake. It has already been proven that San Francisco can experience an earthquake of that magnitude so that is a given. It seems reasonable to assume that an earthquake of greater magnitude is possible. Why design to the benchmark of one we know is possible and not to a level of the highest potential earthquake? According to the US Geological Survey website magnitudes of 8.8 and 8.9 are not unknown. Again it is our lives which are at stake.

Has there been a mock-up built of the proposed configuration and has that been tested by the experts at UC Berkeley? What about the tower in various stages of demolition and reconstruction--have mockups of the structures during different phases been subjected to rigorous testing?

7. INADEQUACY OF SUTRO TOWER INC'S LIABILITY INSURANCE LIMITS

Astonishingly during the course of the community meeting on June 23, Gene Zastrow, the general manager of Sutro Tower, revealed that the liability limits are around \$50 million. This at first blush sounds like a lot of money but there are over 800 homes in Midtown Terrace alone which means the Sutro Tower Inc. has put a value on my home and my family of \$62,500! What analysis has been done to determine whether this level of liability insurance is adequate? Representatives of Sutro Tower Inc. have commented that in the event of a catastrophe the corporation which owns the tower will simply declare bankruptcy. The corporation that owns the tower has been set up to ensure that the assets of the owner broadcast stations will be protected.

8. IMPACT OF FIRE ON TOWER

I raised the issue of the possible effect of a fire in the eucalyptus groves that surround the tower on the structural integrity of the tower in the pre-DEIR stage. I was disappointed by the absence of any analysis in the DEIR and, as I mentioned at the public meeting, shocked by the cavalier treatment given my concerns. Talking to some guy from Australia because they have lots of eucalyptus trees there is not adequate. What would be the ambient temperature of a fire in the immediate vicinity of the tower and would it be so low as to not effect the tower? If it is a matter of the length of time the trees burned--how long would it be before the tower suffered any effects? What about the diesel fuel stored onsite, would a fire in the groves ignite the stored diesel? Domsday scenarios have been played out and are no longer the stuff of fiction.

FIRE1

9. AGING OF THE TOWER

The tower bears the full brunt of storms, wind and fog. Is the tower inspected and maintained with the same rigor as the Golden Gate Bridge? I have reviewed the annual inspection reports and even to a lay person they are a farce. Parts of the tower are not accessible. Who is inspecting those parts? The annual inspections are cursory visual inspections of only one of three legs of the tower. Who established the protocols for the inspections and are they good enough?

10. THE LACK OF COMPLAINTS TO THE MANAGER SHOULD NOT BE INTERPRETED AS THE ABSENCE OF A PROBLEM

There is reference in the DEIR to an absence of complaints about noise as an indication that noise is not a problem. The tower does generate a great deal of noise which should be studied. It creaks and groans. There is an almost constant hum. I know from personal experience that the tower interferes with cable reception, wireless reception and radio reception. Cell phone service is spotty at best. At the community meeting one neighbor reported that that numerous Fastrack transponders failed as a result of the tower to the point where replacement transponders have been denied. Resident's also complained of garage door openers not working. The tower has an adverse impact on the daily lives of the neighbors. If the neighbors are not reporting this incidents to the tower management it is because we have simply given up.

Will the additions and changes to the service building increase the noise from that part of the facility?

11. IT IS FOLLY TO RELY ON SUTRO TOWER INC. TO DO THE RIGHT THING

Please keep in mind during this process that Sutro Tower does not have the interests of its neighbors in mind. As mentioned in the introduction, we have to rely on the Planning Department and Planning Commission to protect our interests. The \$4-5 million seismic upgrade was not done on Sutro Tower Inc's initiative. Sutro Tower Inc. was content to expose the residents of San Francisco to the risk of a catastrophic failure. It was because the residents were granted time to independently study the tower that the fragility of the tower was exposed. This exposure forced Sutro Tower Inc. to do what it should have done on its own.

This is my first experience in this type of situation. I do not know the extent to which the Planning Department relies on the work of the consultants chosen and paid by Sutro Tower Inc. but the question that should be asked of them is whether they can guarantee that the residents face no more danger from the tower than they would if the lot was converted to parkland. Unless they can give that type of assurance we are being placed in an unwarranted level of risk to benefit very small percentage (15%) of the public.

GEO2

IS1

HAZ7

I am only a resident, living in the shadow of the tower. I do not have the financial resources of Sutro Tower Inc. I do not have a lobbyist on retainer to smooth the way through the approval process. I do not have the ability to be a reliable source of contributions to campaigns. I can only raise my concerns and hope that someone pays attention.

Sincerely,

Susan Keeney

Susan M. Keeney

Attorney

Severson & Werson

One Embarcadero Center, 26th Floor

San Francisco, CA 94111

(415) 677-5514

www.severson.com



BROADCAST ENGINEERING Prevent antenna failures.doc

BROADCAST ENGINEERING: Prevent antenna failures

Mar 1, 2008 12:00 PM, Don L. Markley

In January, this column discussed the growth of the antenna complex on the Sears Tower in Chicago. As noted in that article, the installation was successful, but problems occurred, and they were taken care of by an excellent group of contractors.

Minimizing disruption

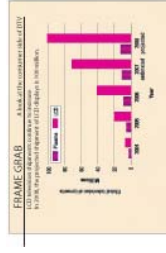
Helicopters were used to place the two towers on the cylinders at the Sears Tower. The towers were fabricated in pieces weighing 10,000lbs or less to conform to the lifting ability of the helicopter. Then, they were picked up from a parking lot a couple of blocks from the building. The work was done early on Sunday mornings because at that time of day, the wind was calm, allowing the pieces to be swung into place with the least degree of difficulty.

It was important for the equipment to be as close as practical to the building where it was being placed. That minimized the actual time that the helicopter had to fly around carrying the load. It also minimized the amount of property that was flown over while carrying the load.

If the helicopter had gotten into trouble for some reason, it would have dropped the load. No one wants to see 10,000lbs of tower fall onto the roof of an office building. Even more so, no one wants to pay for the damage that would result from such a drop.

Other than physical damage, life safety issues for all but the workers on the project were monitored by the city. The top floors of all buildings that were under the path of the helicopter were vacated, and all streets being flown over were blocked off.

Structural analysis



Click on image to enlarge.

Antenna manufacturers depend on mechanical engineers to do the structural analysis and design of their products. The electrical engineers determine how they want the antenna made for the desired electrical performance. That design must then be coordinated with the mechanical engineers to ensure that the completed structure will survive the anticipated loads in accordance with the existing version of the applicable standards. The

standards obviously include the current edition of ANSI/EIA/TIA-222 as well as the local building department requirements.

Some large antenna companies have mechanical engineers on staff, while others hire engineering consultants to do the needed design and testing work. In the case of the two antennas going on the Sears Tower, the work was farmed out to area firms.

Supporting the structure

The supporting structure of a TV antenna can be either a lattice tower or a metal cylinder. In either case, the vertical portion of the antenna has to be connected to a ring or plate at the base, which in turn will be bolted to the tower. Many older antennas used a "bury" section to help with the mechanical transition from tower to antenna. That has largely been replaced by the use of a plate or ring with a bolt circle specified by the mechanical engineers. The ring or plate is welded to the vertical section.



A helicopter was used to lift an antenna to the top of the Sears Tower. Photo courtesy Radio Frequency Systems.

The material used in welds and the amount of that material is carefully specified by mechanical engineers. For the type of project where unusual loads are involved, such as holding an antenna up by one end, the welds should be tested by an independent laboratory. The testing should include determining the depth of the welds and their quality. That testing usually includes X-ray analysis as well as the use of several different magnetic methods of evaluation.

Look at it this way: Although you may be hanging an antenna out in the country where there will be minimal damage from a structural failure, you still want to avoid that failure. Even if no one is hurt, a structural failure can bring the tower down, resulting in a lot of downtime and costs for the station.

For an antenna on a building in a major city, a structural failure could kill or injure a large number of people and open all involved to financial losses that simply are too huge to contemplate. That's why it's important to make sure that such a failure doesn't occur.

Final check

On the Sears Tower, the antennas were delivered by truck and placed on the roof of an adjacent parking garage. The final preparation for the lifts was done there, and the hardware was checked one last time. The installation company didn't think the final system complied with the original design specifications. In particular, the welds didn't seem to be as massive as anticipated. A new testing firm reviewed the steel work and determined that there were several problems with both the quantity and quality of the welds. Repairing the welds wasn't complicated because the problem was caught before the antennas were placed on the building.

Avoid harm

If you're involved with a project of this type, don't be hesitant to question any part of either the electrical or mechanical equipment construction. An old practice used to be to confirm the antenna input impedance before it was taken off the truck. That still isn't a bad idea. However, the function here isn't just to avoid problems. The overriding consideration is to avoid harm to people and damage to the station. Don't be afraid to question anything that you are not fully comfortable with. I assure you that the station management isn't going to complain that you were too careful.

DORIS S. LINNENBACH

155 SAINT GERMAIN AVENUE
SAN FRANCISCO, CALIFORNIA 94114
TEL: (415) 731-4455
wdlinnen@pacbell.net

June 26, 2008

Mr. Bill Wycko
Acting Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, California 94103-2479

Re: Case Number 2007-0206E, Sutro Tower Draft EIR

Commissioners:

My name is Doris Linnenbach. For over twenty years, I have been a member of the Board of Directors of TPIA, the Twin Peaks Improvement Association, and for several decades I have been a neighbor living in the shadow of Sutro Tower.

In July 1997, TPIA came before the Planning Commission when a similar draft EIR was presented to our neighborhood. I feel as though I am reliving the same bad dream of 1997. Once again, it is summertime when my neighbors are on vacation, and Sutro Tower is again presenting a huge, complex, technical document, and the lay people in our area are expected to comment on this intricate document in a mere few weeks. Recall, it was only on Monday this week when Sutro Tower finally held an informational meeting regarding the draft EIR for the neighborhood.

Deciphering this document in such a short period of time is an impossible task. In our engaged neighborhood, we need to find experts, raise money to pay them, and have time to distribute the information to those who are most impacted by the Sutro Tower's plans.

In 1997, a precedent was set by four Planning Commissioners: Dennis Antinore, Beverly Mills, Larry Martin and Rick Hills. These Commissioners agreed with TPIA that our neighborhood needed more time to assess the massive amount of information then given to us, and a reasonable continuance was granted. It was during this continuance that an expert seismic safety commissioner concluded that a dynamic structural analysis of the tower itself was necessary. The retrofit for the tower that resulted from this analysis benefited the entire Bay Area given the tower's enormous broadcast reach.

As you have no doubt read and heard the many comments by the few citizens that have responded to the draft EIR, we again have many concerns that need to be addressed by experts. For those of us that live in the fall zone of Sutro Tower, it is our right to explore these avenues of concern.

From 1997 to 2000, I was deeply involved in the aforementioned situation, and I can attest that we will need at least 90 days to get adequate scientific help to review this draft EIR.

A 90 day delay will not prejudice Sutro Tower in any way, as the tower is already equipped with digital antennae and is already broadcasting HDTV signals.

I have contacted structural and risk analysis experts to help TPIA and the neighborhood to review the draft EIR, but, some cannot help immediately as they will be on vacations until the middle of July.

Commissioners, each week you listen to concerns about residential set backs, roof lines, views, and open space issues. These concerns are complex enough, yet far more easily comprehended and dealt with than an aging metal structure functioning with an outdated conditional use that dates back several decades and has no foreseeable end.

Furthermore, we must also evaluate project elements such as geology, soils, seismicity, radio frequency radiation, and risk management with regard to fire and falling objects. As you know, there are several homes located directly under Sutro Tower. We must evaluate mitigation measures for another lengthy construction project which will impact our lives on a daily basis for almost a year and a half.

I implore you to give us time to protect or our homes and the quality of life in our neighborhood as those four commissioners did eleven years ago.

Please take in to account that Sutro Tower was built long after our neighborhoods were established. Our City made promises to protect us, yet the City of San Francisco has not made good on that promise.

Instead, the City has allowed a full-scale, commercial enterprise to exist in a strictly R1 D neighborhood.

Please help us, the neighborhood, to properly evaluate this document and allow us to have until September 30 to submit written comment for this draft EIR.

Thank you,

Doris Linnenbach

RECEIVED AT CPC HEARING 6-26-08
JUL 1 6 30 AM '08
(U, W/5A)

G1

G1

Megg9@aol.com
06/30/2008 10:57 PM

Dear Mr. Wycko:

We live at 99 Clarendon Ave. We did not receive a copy of the DEIR, nor notice of the public meeting June 23, 2008, from Sutro Tower.

We oppose the 10 to 14 month disruption of the surrounding neighbors for this new construction for the following reasons.

First, it is *unnecessary*. FCC regulations are already met and digital broadcasting is ongoing.

Second, the new materials would only marginally benefit a minority of the 10 to 15% of homes which do not have cable of satellite connections.

Third, Sutro Tower has never fulfilled its promise to build a public park on its land.

Fourth, Sutro tower has added over 100 antennae without permits, even though many of them weighed many tons.

Fifth, the new materials will not fix the electrical disruptions of home appliances now endured by close neighbors.

In addition sufficient time should be given neighborhood organizations for a formal review. A major error was found on a previous Sutro Tower permit application only because there was sufficient time for outside review.

Thank you for your consideration of these comments.

Sincerely yours:

Dr. George and Myrta Matula
99 Clarendon Ave
SF 94114-2101

G4

PD1

G3

G2

HAZ7

G1

Yuliya A. Oryol
Attorney At Law
44 Clarendon Avenue
San Francisco, California 94114

June 25, 2008

RE: Sutro Tower Digital Television Project

Hearing on 6/26/08 - Planning Department Case No. 2007.0206E

To Whom It May Concern:

I am writing to express my concerns regarding the upcoming referenced hearing. As someone who has small children who reside in close proximity to Sutro Tower, I want to know about the overall impact of Sutro Tower on the health of the residents of the surrounding neighborhoods. As far as I am aware, no studies have ever been conducted to analyze the potential long term health hazards associated with Sutro Tower. As such, I request that as part of the Environmental Impact Review process, the owners of Sutro Tower be required to also prepare a health study prior to obtaining any approvals for additional work on Sutro Tower. As a resident of Twin Peaks, I urge the Planning Department, Planning Commission, and Department of Building Inspection to review the project in light of the potential hazardous impacts on the health of the residents of the surrounding neighborhoods, namely Twin Peaks, Midtown Terrace, Forest Knolls, and Galewood Circle. Thank you in advance for addressing this issue as part of the review process.

Sincerely,
Yuliya A. Oryol

HAZ1

Attachment 2: Transcript of DEIR Public Hearing

--000--

SAN FRANCISCO PLANNING DEPARTMENT
SAN FRANCISCO PLANNING COMMISSION

STATE OF CALIFORNIA
CITY HALL, ROOM 400
1 DR. CARLTON B. GOODLETT PLACE

PUBLIC HEARING ON THE
Draft ENVIRONMENTAL IMPACT REPORT (EIR)

--000--

THURSDAY, JUNE 26, 2008
1 LA AVANZADA STREET/SUTRO TOWER
DIGITAL TELEVISION PROJECT
ITEM 15. 2007.0706E

REPORTED BY: E. BRUIHL, RPR, CSR NO. 3077
A REGISTERED PROFESSIONAL REPORTER

--000--

A P P E A R A N C E S

PRESIDENT: CHRISTINA R. OLAGUE
VICE PRESIDENT: RON MIGUEL
COMMISSIONERS: MICHAEL J. ANTONINI
GWYNETH J. BORDEN
KATHRIN MOORE
HISASHI SUGAYA

DIRECTOR OF PLANNING: JOHN S. RAHAIM
PLANNING COMMISSIONER: LAWRENCE BADINER
COMMISSION SECRETARY: LINDA D. AVERY

1 --000--
2 P R O C E E D I N G S
3 THURSDAY, JUNE 26, 2008 2:50 P.M.

5 COMMISSION SECRETARY: Commissioners,
6 you are not on Item No. 15, Case No. 2007.0706E, 1
7 La Avanzada Street/Sutro Tower Digital Television
8 Project, a Public Hearing on the Draft Environmental
9 Impact Report

10 MS. WISE: Good afternoon, President
11 Olague, members of the Commissioners. Victoria
12 Wise, Department staff.

13 This is a hearing to receive comments on a
14 Draft Environmental Impact Report for the Sutro
15 Tower Digital Television Project, Case No.
16 2007.0706E.

17 The public and Commissioners should know
18 that this is not -- that the staff is not here to
19 answer comments today.

Comments will be transcribed and responded
to in writing in the Comments and Responses document
which will respond to all verbal and written
comments and make revisions to the Draft EIR as
appropriate.

25 This is not a hearing to consider approval

- 1 or disapproval of this project. That hearing will
- 2 follow the final EIR certification hearing.

Comments today should be directed to the adequacy and accuracy of the environmental document and commentators should please speak slowly and clearly so that the Court Reporter can produce an accurate transcript.

Also, commentors should state their name and address so that it can be properly identified and receive a copy of the comments and responses document when it is completed.

12 After comments from the general public, we
13 will also take any comments from the Planning
14 Commission on the Draft document.

15 The public comment period for this project
16 began on May 17th and will conclude on July 1st at
17 5:00 p.m.

18 This concludes my presentation. I ask that
19 the public hearing and the Draft EIR be open.

20 PRESIDENT OLAGUE: Thank you.

21 Is there any public comment?

22 MS. CROWDER: Good afternoon.

23 My name is Donna Crowder (phonetics), 101

24 Groom-Brooks (phonetics), just under the Tower of

25 2008 President of Twin Peaks Improvement Association

1 and I'm not an engineer, scientist or lawyer. I'm
2 just a realtor.

3 So, I ask how do we know what authorities
4 does the project sponsor quote to neutral
5 authorities do they quote to support their evidence
6 regarding the need for this project?

7 There are a few others that have actually
8 written specific and clear -- clearly about specific
9 deficiencies in the Draft EIR, particularly, Charmen
10 (phonetics) and I want to speak about the lack of
11 notification to those concerned individuals, the
12 ones that live under the Tower.

13 Three hundred foot notification, a thousand
14 foot notification, is this is sufficient? Did
15 everyone get the notice? I did not. I'm right
16 under the Tower.

17 Ms. Stein (phonetics) admits in her letter
18 to you that there has never been a hearing in the
19 eighteen years in Sutro Tower that the neighbors
20 haven't complained about lack of notice.

21 So, to this end, I would suggest that
22 neighborhood meetings be required or at least be a
23 good neighborly gesture on the part of the Tower
24 when they have any documents that come before the
25 City regarding the Tower.

G4

1 We have also historically requested this
2 and, as soon as we found out about this, we asked
3 for a neighborhood meeting.

4 We always have to petition for this. The
5 hundred and eighteen page Draft took a five notes
6 and a battery of lawyers to create at some extent
7 for Sutro Tower.

8 Whereas, the neighbors have scant resources
9 and, as it turns out, only about two weeks to raise
10 money and try to organize at first to review the
11 document.

12 This is an historical study that a client
13 of mine had to produce, to do a twenty percent
14 extension on an 1100 square foot building in advance
15 of an EIR and it documents every permit, every
16 addition, every owner, everything that ever happened
17 to that property.

18 So, should the Tower, a thousand feet over
19 us and an essential element of the City be required
20 any less?

21 Why doesn't the additions to the Tower
22 transmission building which is a structure which
23 take it -- why aren't they -- why doesn't that have
24 to conform to zoning of regulations?

PD9

25 If you noticed in the EIR Report, that is

1 not applicable.

2 There are only about fifteen percent of the
3 public that obtains t.v. in this way. Most have
4 cable or satellite. PD1

5 So, does the scope of the project offset
6 the benefit? Or is it increased revenue from the
7 tenant antenna that are --

8 PRESIDENT OLAGUE: Thank you.

9 MS. CROWDER: So, I ask you to grant a
10 sixty-day continuance for us to respond.

11 Thank you.

12 PRESIDENT OLAGUE: Thank you.

13 Doris Linnenbach followed by Susan Keeney?

14 MS. LINNENBACH: Good afternoon,
15 Commissioners.

16 My name is Doris Linnenbach. I live at 155
17 Saint Germain. For over twenty years, I have been a
18 member of the Board of Directors of TPIA and the
19 Twin Peaks Improvement Association and for several
20 decades, I have been a neighbor living under the
21 shadow of Sutro Tower.

22 In July 1997, TPIA came before the Planning
23 Commission when a similar Draft EIR was presented to
24 our neighborhood.

25 I feel as though I'm living through the

1 same bad dream of 1977.

2 Once again, it is summertime when my
3 neighbors are on vacation and Sutro Tower is again
4 presenting a complex, technical document and the lay
5 people in our area are expected to comment on this
6 intricate document in a mere few weeks.

7 Recall, it was only on this Monday this
8 week when Sutro Tower finally held an informational
9 meeting regarding the Draft EIR for the
10 neighborhood. G1

11 Deciphering this document in such a short
12 period of time is an impossible task. We need to
13 find experts, raise money to pay them, and have time
14 to distribute the information to those who are most
15 impacted by Sutro Tower's plans.

16 In 1997, the precedent was set by four
17 Planning Commissioners when they agreed with TPIA
18 that our neighborhood needed more time to assess the
19 massive amount of information and then gave us a
20 reasonable continuance.

21 It was during this continuance that an
22 expert Seismic Safety Commissioner concluded that a
23 dynamic analysis of the Tower itself was necessary.

24 The retrofit for the Tower that resulted
25 from this analysis benefited the entire Bay Area,

1 given the Tower's enormous broadcast reach.

2 You have read and heard the many comments
3 by the few citizens that have responded to the Draft
4 EIR.

5 We have many concerns that need to be
6 addressed by experts. For those of us that live in
7 the fall zone of Sutro Tower, it is our right to
8 explore these concerns.

9 Given my experiences from 1997 to 2000, I
10 can attest that we will need at least between sixty
11 to ninety days to get adequate scientific help to
12 address these concerns and review this Draft EIR.

13 A ninety or sixty-day delay will not **G1**
14 prejudice Sutro Tower in any way as the Tower is
15 already equipped with digital antennae and is
16 already broadcasting HDTV signals.

17 We must also evaluate project elements such
18 as geology, soils, seismicity, radio frequency
19 radiation, and risk management with regards to fire
20 and falling objects.

21 There are several homes located directly
22 under Sutro Tower. We must evaluate mitigation
23 measures for lengthy construction projects which
24 will impact our lives on a daily basis for almost a
25 year and half.

1 I implore you to give us this extra time so
2 that we may do a proper job of evaluating this Draft
3 EIR as those four Commissioners did about **G1**
4 eleven years ago.

5 Please take account that Sutro Tower was
6 built long after our neighborhoods were established.

7 So, please give us an extension we need
8 until September 30th.

9 Thank you very much.

10 MS. KEENEY: Good afternoon.

11 My name is Susan Keeney. I live at 329 Del
12 Brooke Avenue in Midtown Terrace. My home is within
13 the parameter of Salzhand (phonetics) Sutro Tower.

14 Civic planning commission resolution 5967
15 cites the need for improved television reception in
16 the San Francisco Bay Area which could only be
17 accomplished by increasing the height of existing
18 television transmission antenna.

19 This was the basic reason why Sutro Tower
20 was built. A lot has changed since March 1966.

21 Yet, the Draft Environmental Report fails to address
22 why the changes in technology and the past
23 forty-two years have not altered the need to place
24 the proposed digital transmission antennas in the
25 exact location of the analogue antenna that exists

1 there today.

2 The primary failing of the Draft

3 Environmental Report is its lack of attention to the
4 fact that the existing facility already meets the
5 needs of those to rely on broadcast television
6 signals in the digital format that has been in
7 existence since 1997.

8 At some point, there needs to be a weighing
9 process that balances the welfare of the residents
10 against the needs for Sutro Tower.

11 While the risk of a collapse or other
12 catastrophic failure may be minimal, any risk -- is
13 any risk acceptable if there is no compelling need
14 for the Tower of this size and in this location?

15 I raised in the preliminary comment period
16 my concerns regarding the stability or the
17 structural integrity of the Tower should there be a
18 catastrophic fire in the area.

19 We know that's happened. The World Trade
20 Center is an obvious example, is the fact that
21 smelting (phonetics) is not impervious to heat. It
22 does fail.

23 Sutro Tower sits in the midst of a
24 eucalyptus forest. Eucalyptus trees burn very
25 quickly and very hotly and there was really minimal

1 discussion of that in the Draft Environmental
2 Report.

3 We met with the General Manager of the
4 Tower who said that he talked to some fellow from
5 Australia.

6 You know Australia has a lot of eucalyptus
7 trees and he said not to worry because they burn
8 fast, so they won't affect the Tower.

9 Well, I live in the fall zone, and if those
10 trees grow up and go up in flames, that Tower might
11 fall on my house and I'm very concerned about that.

12 I think it needs a little more attention
13 than talking to some guy from Australia because
14 there are a lot of eucalyptus trees in Australia.

15 I thank you for your time and attention.

16 PRESIDENT OLAGUE: And I have some
17 additional documents here that I would like to
18 submit. Thank you.

19 MR. LEE: My name is Thomas Lee. I
20 live at 529 Del Brooke, also very close to the
21 Tower.

22 My comments are brief -- (alarm) -- maybe
23 not that brief (laughter).

24 Yes. First of all, I would like to add my
25 voice to the concerns and the compressed schedule

1 for the review of this.

2 The neighborhood has had very little time
3 to evaluate the Draft EIR. That is a rather complex
4 document.

5 So, primarily, I would ask for more time so
6 it can be reviewed carefully.

7 One of the things the neighborhood might
8 like to do is to actually do testing to confirm that
9 the safety estimates given in the Draft EIR are
10 equipped (phonetics).

11 Now, in the Draft EIR, you have a lot of
12 safety factors built into the estimates which is
13 good engineering but I think they need to be
14 evaluated independently.

15 The Tower is also very old and it has had a
16 lot of modification. I think this is prudent. So,
17 it's one of the things that I'd really like to do
18 and would simply require more time to do it
19 accurately and scientifically.

20 The next thing I would like to speak to is
21 I did review the EIR. The primary concern I have is
22 with the lowering of certain antennas temporarily
23 from a height of I believe it is about four hundred
24 feet to about one hundred feet which is really close
25 to the ground level.

1 Now, there are a lot of residences within
2 several hundred feet of the Tower. There is a
3 school within an eighth of a mile which is six or
4 seven hundred feet.

5 So, lowering antennas from four hundred to
6 one hundred feet significantly increases the
7 distance from the source of the radiation to the
8 people who might experience it.

HAZ5

9 Now, again, there are a lot of safety
10 factors built in but given this change which will be
11 temporary but we don't really know how long it will
12 be in effect for, that's going to significantly
13 increase the radiation exposure to people in this
14 area.

15 That is a chief concern I have and that's
16 one thing I think should be tested and perhaps
17 monitored during the construction of the Tower
18 because if there are hot spots which have apparently
19 appeared in the neighborhood, these might pose an
20 actual health danger to people.

21 The recommended adequate radiation as I
22 understand it is not considered dangerous until it
23 starts to eat up your flesh and with the safety
24 factors given, apparently, the radiation from the
25 Tower will not but, again, even with those safety

1 factors, there are close to one hundred percent of
 2 the -- of what they would consider a safe output.

3 So, again, I just think this calls for
 4 prudence and some care in evaluating the EIR.

5 Thank you.

6 PRESIDENT OLAGUE: Thank you.

7 Any additional public comments?

8 MS. STONE: Commissioner Olague,
 9 members of the Commissioner, Debra Stone, TPJA,
 10 representing Sutro Tower.

11 It is true that the last eighteen years
 12 these neighborhood associations asked for a
 13 continuance on every single hearing that there has
 14 ever been held on the Tower which is something that
 15 we are very sensitive to which is why seven months
 16 ago when the application for this new t.v.
 17 conversion project was first filed.

18 The General Manager for Sutro Tower, June
 19 Zasbro (phonetics) telephoned each of the
 20 Homeowners' association specially designated Sutro
 21 Tower liaisons to let them know that the application
 22 was on file.

23 June and I met personally with each of
 24 those Sutro Tower liaisons to go over the
 25 application. This was seven months ago.

1 With regards to formal notice of the
 2 preparation of this EIR, as you know, the notice of
 3 preparation is controlled by -- not by the Planning
 4 Code but by the San Francisco Administrative Code
 5 which requires with regards to organizations and
 6 individuals that those who have actually asked
 7 previous requests and notice receive it.

8 Sutro Tower and for the Department, notice
 9 met and exceeded this. There was notice sent to
 10 approximately two hundred individuals and
 11 organizations.

12 In addition, notice was sent to all owners
 13 within three hundred feet. In addition, notice was
 14 sent to all adjacent residents.

15 In addition, there was a large group
 16 neighborhood meeting this last -- this past week.

17 When this EIR was completed, the
 18 Administrative Code required that there be notice
 19 posted on the site. It was posted on the site and
 20 at five other locations in the neighborhood.

21 Notice was supposed to go to owners within
 22 three hundred feet which was also sent to all
 23 adjacent residents.

24 The Planning Code says when the DR hearing
 25 was scheduled, the discretionary review on the

1 building permit several weeks or months from now,
 2 that notice on that hearing goes for a thousand feet
 3 but that is specifically limited to the notice, the
 4 sections notice of applications for building permits
 5 for Sutro Tower.

6 There has been compliant notice. There has
 7 been overly compliant notice.

8 There has been an actual notice and the
 9 community has been involved and aware of this
 10 project since December.

11 Continuing, this would prejudice the
 12 project. We are facing an FCC mandate but we must
 13 turn off analogue antennas in February.

14 This is not something that can be changed
 15 on a case-by-case basis. The FCC is auctioning off
 16 the spectrum at this time.

17 So, we ask that this public hearing be
 18 closed, that public comment be accepted until July
 19 1st so that we can move forward and then come back
 20 before you on the merits of the project.

21 PRESIDENT OLAGUE: Thank you.

22 Is there any additional public comment on
 23 this matter? Seeing none. The public comment is
 24 closed.

25 Ms. Avery?

1 COMMISSION SECRETARY: Commissioners,
 2 with that, this item for today is closed and written
 3 comments will be accepted at the Planning
 4 Department's offices until the close of business on
 5 July 1, '28.

6 Thank you, public and Commissioners, and
 7 you are now going to Item No --

8 PRESIDENT OLAGUE: I'm sorry.

9 Commissioner Antonini had a couple of questions?

10 COMMISSIONER ANTONINI: Yeah. I just
 11 wanted to ask Project Sponsor a couple of questions
 12 on this.

13 COMMISSION SECRETARY: We're back on
 14 Item 15?

15 PRESIDENT OLAGUE: Back on Item 15.

16 COMMISSIONER ANTONINI: We're back on the
 17 item. I'm sorry. I wasn't quite sure of the
 18 procedure.

19 We've heard some comments in regards to a
 20 continuance and various other items that have been
 21 brought up here and it seems to me one of the
 22 correspondence I received disputed whether or not
 23 there had to be a change to accommodate digital and
 24 it seems to me that reading the DIR that you do, in
 25 fact, have to change these antennas to be able to

1 broadcast digitally and you have a deadline to do
2 that.

3 Is that the case?

4 MS. STONE: The speaker who spoke is
5 correct that there is currently a single set of
6 analogue -- excuse me, digital antennas providing
7 backup analogues.

8 When the analogues go off-line, though,
9 there will no longer be emergency or back-up
10 antennas.

11 So, we will be moving the digital to the
12 top of Sutro Tower farther away from residents and
13 then moving -- putting a new set of digital antennas
14 for emergency purposes.

15 All together, there will be elimination of
16 twenty-two television antennas and the replacement
17 of eight. So, there will be a net loss of eighteen
18 antennas.

19 COMMISSIONER ANTONINI: So, I guess
20 what you're saying is there are some antennas,
21 including an emergency broadcast digitally but would
22 not be able to do it as a matter of course long
23 term?

24 MS. STONE: Commissioner, I'm happy
25 to answer the question on this project if you wish

1 but I'm respectful of neighbors, would be that the
2 short answer is that there is no digital backup on
3 Sutro Tower and if those digital antennas were not,
4 we'd have no emergency coverage in the City of San
5 Francisco.

6 COMMISSIONER ANTONINI: Okay, that's
7 fine, and I guess that was my main question for that
8 purpose was being brought up here.

9 Also, I had a question about the new
10 antennas that were being added. There was a little
11 bit additional wait but, you know, I'm not sure how
12 it meets out relative to the antennas that are there
13 presently.

14 MS. STONE: Actually, they are a bit
15 lighter in weight.

16 It will be -- ultimately, the project will
17 result in the net elimination of three point eight
18 tons of television equipment from the Tower.

19 COMMISSIONER ANTONINI: Right,
20 because your Report speaks to allowances for
21 additional weight at all these different locations
22 and so since we've got even a lower weight, that is
23 not an issue.

24 MS. STONE: That is correct.
25 The structural evaluation took the worse

1 case maximum capacity in the Tower for theoretical
 2 weight capacity but for this project will actually
 3 be taking down three point eight tons of equipment.

4 There is also a very slight reduction in
 5 our emissions which is currently eight point five
 6 percent of the public exposure limit.

7 It will go during construction to fourteen
 8 point three percent. So, less than what's being --
 9 than exposure now from outside antennas and then
 10 after construction will be at eight point four
 11 percent.

12 COMMISSIONER ANTONINI: So, that was my
 13 next question.

14 MS. STONE: My psychic skills. Your
 15 summary was significant.

16 COMMISSIONER ANTONINI: Yeah, no, and
 17 there is only one other question I think I have and
 18 that's the perimeter.

19 As I recall, there's a perimeter in which
 20 there is no eucalyptus from a distance around the
 21 Tower and, you know, I'm wondering if that's -- you
 22 know, what I would assume to be dependant space as
 23 far as the fire danger may be concerned.

24 MS. STONE: Sutro Tower does maintain
 25 a circuit perimeter around itself and including

1 shrubbery and brush so that the fire trails can be
 2 accessed and the security people regularly check the
 3 site several times a day to make sure that nobody
 4 has managed to pull a circle around it, that there
 5 is no smoldering occurrence.

6 COMMISSIONER ANTONINI: Okay, thank
 7 you.

8 I just have a question for one of the
 9 speakers, I guess Ms. Linnebach or whoever would
 10 like to address the -- answer my question about the
 11 -- there was a request for a continuance and I just
 12 wanted to ask someone about what they hoped to gain
 13 if there was a continuance on this item.

14 MS. LINNEBACH: The question is, sir?
 15 What was it?

16 COMMISSIONER ANTONINI: The
 17 question is many of the points that were brought up
 18 by the speakers I asked the Project Sponsors and
 19 they answered them today.

20 So, I'm wondering if there are additional
 21 questions that could be raised.

22 MS. LINNEBACH: Last time when this
 23 happened, Commissioner, you see, we just got this
 24 EIR.

25 On Monday, we had a meeting with the

1 Project Sponsor. We had a full church full of
2 people at St. John's church.

3 The last time that we did this, we went and
4 got -- we collected money from the neighborhood and
5 we went out and hired experts to give us their
6 version of the document that you have before you and
7 during that period, a very very important document
8 came up.

9 There are major concerns by people in this
10 neighborhood. I don't know if you read Shawn and
11 Chin's (phonetics) --

12 COMMISSIONER ANTONINI: I did read
13 that and I think that answered -- that was answered
14 in my estimation but I guess my question for you is
15 more about notification.

16 I'm looking at all the people that were
17 notified by this document. One would assume that
18 was issued quite some time ago.

19 MS. LINNEBACH: How many people do
20 you see there, sir?

21 COMMISSIONER ANTONINI: I see --

22 MS. LINNEBACH: In the neighborhood?

23 COMMISSIONER ANTONINI: I see quite
24 a few and I see the presence of all the neighbor
25 groups.

1 MS. LINNEBACH: Just the three?

2 Yes, and then -- and Sutro Tower feels that they can
3 put the burden on the people in the neighborhood to
4 then inform the rest of our people.

5 For example, in my own case, I was in the
6 hospital and had major surgery on my knee and was
7 not able to do anything for two few weeks.

8 We are not paid people to do this. We just
9 do --

10 COMMISSIONER ANTONINI: The Project
11 Sponsor did bring the point up that the manager had
12 contacted all the neighborhood groups.

13 MS. LINNEBACH: Mr. Zastro
14 (phonetics) came to my house several times before
15 because I had to have a telephone replaced.

16 My telephone service was so bad in my house
17 that Mr. Zastro (phonetics) was kind enough to come
18 and bring me two different telephones.

19 So, he did come to my home and he was --
20 project and he did call us.

21 COMMISSIONER ANTONINI: Okay, all
22 right. Thank you. I just wanted to verify.

23 MS. LINNEBACH: Yes. Well, thank
24 you very much, Dr. Antonini.

25 PRESIDENT OLAGUE: I think we're -- no

1 other Commissioner comment that I can see.

2 COMMISSIONER SECRETARY: Seeing no
 3 other comments... if there are no other comments,
 4 then we are -- the public hearing for this item is
 5 now closed and written public comments, again, will
 6 be accepted at the Planning Department's offices at
 7 the close of business on July 1, 2008.

8 Thank you.

9 (CONCLUDED AT 3:11 P.M.)

1 --000--

2 REPORTER'S CERTIFICATE

3
 4 I, EASTELLER BRUIHL, CSR No. 3077, a
 5 California Certified Shorthand Court Reporter for
 6 Star Reporting Service, Inc., 703 Market Street,
 7 Suites 1003-1013, San Francisco, California 94013,
 8 do hereby certify:

9 That the foregoing proceedings were
 10 taken by me at the time and place therein set forth;
 11 that all comments, objections and statements made at
 12 the time of the proceedings were recorded
 13 stenographically by me and were thereafter
 14 transcribed;

15 That the foregoing is a true and
 16 correct transcript of the hearing proceedings.

17 I further certify that I am not a
 18 relative or employee of any attorney of the parties
 19 nor financially interested in the action.

20 I declare under penalty of perjury by
 21 the laws of the State of California that the
 22 foregoing is true and correct.

23 Dated: FRIDAY, JULY 11, 2008.

24
 25 Easteller Bruhl, RPR, CSR No. 3077