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Sent: 6/19/2013 6:50:20 PM
To: 'bdb@cpuc.ca.gov' (bdb@cpuc.ca.gov)
Cc: Fugere, Raymond G. (raymond.fugere@cpuc.ca.gov)
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Subject: FAA Update

Mr. Brinkman,

On November 18, 2011, PG&E submitted a response to Data Request 11, which requested information about PG&E's "method for maintaining compliance" with "aviation safety regulations for overhead electric construction." In that response, PG&E stated that it had initiated a records review of structures exceeding 200 feet in height to verify compliance with Federal Aviation Administration Advisory Circular 70/7460-1k, Chapter 2. The purpose of this email is to provide an update regarding that review and additional efforts by PG&E since that data response was submitted. The November 18, 2011 response is replicated below for convenience.

After the November 18, 2011 submittal, PG&E performed an inventory of its transmission towers that might meet current FAA notification requirements regardless of whether an exception such as "grandfathering" or proximity to another lighted tower may have applied. PG&E completed a field assessment using Light Detection and Ranging (LIDAR) technology to capture the most accurate information on tower location (longitude and latitude) as well as ground elevation and overall tower height. PG&E also used the FAA Notification Criteria Tool (NCT) (available on the FAA website) to determine which towers meet current FAA notification criteria. PG&E worked with the FAA in preparing new study requests for those towers so PG&E could provide the best information for air safety considerations and to get a final determination from the FAA as to whether notification requirements or any exceptions applied, (excluding the exception for date of construction) to bring all PG&E towers up to the most current FAA notification, marking and lighting standards.

On October 5, 2012, PG&E submitted to the FAA PG&E's list of 153 towers for formal air safety study. Of these, 66 already had aviation warning lights. Additionally, PG&E included two towers that did not require notification per the NCT. They were included because they already had aviation lights so FAA input was requested to aid in

evaluating whether to maintain those lighting systems. Thus, the total request was for study of 155 towers.

The status of the FAA responses to date can be summarized as follows: (1) four study requests were terminated because they were found to be duplicative of previously submitted and resolved requests, bringing the total number of new requests for FAA review to 151; (2) the FAA requested additional information in four cases, which PG&E has supplied; (3) three studies are categorized as “interim” by the FAA, meaning that the FAA requested that the towers be shortened, which PG&E has agreed to do; (4) 17 are works in progress, which means the FAA is working on its recommendation.

In sum, PG&E has received responses for 138 of the 155 studies submitted to the FAA as of this writing. The attached table summarizes the FAA’s recommendations for the 138 responses received. Because PG&E has not received notice of when it can expect the remaining 17 reports, PG&E is providing this update prior to receiving them. PG&E has continued to work with the FAA as it returns completed Air Hazard Determinations for each structure. PG&E has created a four-year plan to implement the FAA’s recommendations on marking and lighting towers. In addition to new lighting and marking for certain towers, the plan includes shortening three towers at the FAA’s request, and also updating lighting technology by replacing old systems with LED lighting. Lighting systems on some towers are dated, making replacement parts difficult or impossible to locate, and LED lighting is superior because bulbs last longer. In addition, the new systems will include automatic notification in case of a lighting outage. Starting about three years ago, PG&E began researching various new products to meet marking, lighting, and notification needs. In addition, PG&E is streamlining and centralizing its internal compliance program documentation, including records and compliance guidance documents. Next steps also include a new inventory and revised record-keeping for structures near airports that are below 200’ that might meet FAA notification criteria, and also an inventory of longer wire spans for which the FAA Advisory Circular on marking and lighting advises use of marker balls. We will provide updates to SED on these efforts.

Please let me know if you have questions or would like additional information.

Thank you,

Meredith Allen

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NOVEMBER 18, 2011 RESPONSE TO QUESTION 1

Related PG&E Ref. No. 000000000

CPUC Data Request 11 - Ben Brinkman

Request Date: November 3, 2011

The California Public Utilities Commission's Consumer Protection and Safety Division (CPSD)

has concerns regarding overhead electric facilities in the State of California and aviation safety

regulations. These regulations may include, but are not limited to, Federal Aviation Regulation

(FAR) Title 14, Part 77, other Federal Aviation Administration (FAA) regulations, and local

Airport Land Use Commission or Forest Service requirements.

CPSD requests:

1) Your utility's methods for maintaining compliance, and verifying past compliance with all

aviation safety regulations for overhead electric construction.

ANSWER TO QUESTION 1, dated November 18, 2011:

1) PG&E installs lighting and marker balls on new electric transmission towers in accordance

with FAA requirement (Advisory Circular 70/7460-1k, Chapter 2) which in essence requires

that a structure exceeding an overall height of 200 feet be lighted or marked. This requirement

is captured on PG&E Form F3330-01-4, Transmission Line Project Design Checklist, as part of

the engineering process. Please refer to Attachment 1.

PG&E has inventoried this equipment and the location of this equipment is documented in

SAP. PG&E anticipates that this data will be migrated into the Company's GIS system by the end of this year.

Although PG&E is not aware of any structures that do not meet the above requirement, PG&E

has initiated a records review of structures exceeding 200 feet in height to verify compliance

with Advisory Circular 70/7460-1k, Chapter 2.

PG&E maintains this equipment in accordance with PG&E's Electric Transmission

Preventative Maintenance manual, Form TD-1001M-F02 Corrective Work Form Electric

Transmission Line, Attachment 2, Utility Procedure TD-1001P-01, Attachment 3, and Work

Procedure WP1912, Attachment 4. Additionally, PG&E has established an annual bulb

replacement cycle managed through SAP and has deployed automatic monitoring equipment on

some transmission towers.

Response provided by: Redacted Supervising Engineer, Transmission Line Asset Strategy