

Additional Plume Modeling Information for Xeres Santa Clara SC-1 Data Center (11-SPPE-01)

From: Email message from Joseph Hughes to Candace Hill

Subject: Potential Cooling Tower Plumes Modeling Results

DOCKET	
11-SPPE-01	
DATE	FEB 08 2012
RECD.	FEB 10 2012

>>> Joseph Hughes 2/8/2012 11:37 AM >>>

Candace,

because the SACTI model does not take into consideration the differential height between the adjacent data center and the cooling tower housing or exhaust stacks, staff modeled various cases in an effort to capture conservative results. The SACTI model **did not** predict any ground fogging instances under the various cases modeled. The cases and assumptions are listed below. For each case three years of hourly San Jose meteorological data (1989-1991) was used.

Case 1: Did not account for data center. Only inputs for the cooling tower were used.

Case 2: Assumed the entire data center was part of the cooling tower and the height of the structure was equal to the height of the cooling tower.

Case 3: Assumed the entire data center was part of the cooling tower and the height of the structure was equal to the height of the data center.

-Joey