

Docket Optical System - Fwd: VV2 - Transmission Line Pole Height Information

From: John Kessler
To: Docket Optical System
Date: 3/17/2008 4:39 PM
Subject: Fwd: VV2 - Transmission Line Pole Height Information
Attachments: VV2 T-line Pole Locations.pdf

Please docket to Victorville 2, (07-AFC-1).

Thank you,

John

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DOCKET	
07-AFC-1	
DATE	MAR 17 2008
RECD.	MAR 17 2008

>>> "Barnett, Tom" <tbarnett@inlandenergy.com> 3/17/2008 4:28 PM >>>
Steve/Jim:

Pursuant to your recent telephonic request, we have reviewed this subject for the T-line poles nearest the airport; our review concluded the following:

1. The AFC stated that the poles would be 140 feet or less, our design for the poles that would be "on top of the hill" allows for significantly shorter poles, as described below.

2. The transmission line leaving the VV2 switchyard will travel approximately 2,500 feet before cresting the upper rim of the Mojave River flood plain (see the attached map); the approximate HAMSL grade elevations of the first six poles are as shown below:

Structure 1 - 2800'
 Structure 2 - 2790'
 Structure 3 - 2770'
 Structure 4 - 2800'
 Structure 5- 2800' - terrain falls off starting with this structure
 Structure 6 - 2740'

T-line poles located after this point (starting with Pole No. 6) will fall off dramatically in height above mean sea level (HAMSL) and, therefore will be much lower than the 2,817 ft HAMSL elevation of the north end of the main runway. The first of these poles will need to be approximately 140 feet in height to maintain minimum line sag tolerances, but since the pole's HAMSL elevation is approximately 77 feet below the runway elevation, this pole and the subsequent taller poles that are further down the slope will be lower than 79 feet above the runway's HAMSL and therefore should not create a problem for the FAA.

3. The current VV2 design (as previously submitted to the CEC) shows five poles connecting the Plant's switchyard with Pole No. 6, covering a distance of approximately 2,500 feet. These towers are of the single steel pole design and are engineered to be no more than 79 feet in height; placing them at 500 foot intervals (which is relatively short for a 230 kV line) allows the sag over this relatively flat area to remain within safety specifications. Grade elevations for all of these poles are lower than the runway elevation, the highest being Pole Nos. 1 and 4 at 2,800 feet. Note that Pole No. 1, which is designed to be shorter since it has to accommodate the reduced height of the "Take-Away Structure" at the switchyard, will be no more than 60 feet tall. Additionally, the subsequent poles run away from the switchyard at an angle to the East-South-East, so they

are also getting further from the runway's cone of interference with each subsequent pole location.

In summary, the current configuration for the initial portion of the Transmission line shows that none of the structures required will exceed 79 feet in height and therefore do not require filing 7460's with the FAA.

If you have further questions, please contact me.

Tom



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Streaming 100%

Pointer 34°37'07.40" N 117°21'51.70" W

Eye alt 14254 ft