date: April 11, 2014

to: RSC

from: D. Beavis

subject: VTF Roof Chipmunk Change

The previous five-cell cavity was tested to nearly 4MV/cell with a 200 Watt power supply. There is a request for the next five-cell cavity to be tested up to 6MV/cell for a total of 30 MV. The past experience at 4MV per cell produced radiation levels at the roof chipmunk up to 14 mrem/hr for brief periods. The chipmunk was set to interlock at 20 mrem/hr and alarm at 10 mrem/hr. No detectable radiation levels were found at ground level. At the top of the rigging slot a low level of approximately 0.1 mrem.hr was detected.

The chipmunk interlock level can be raised to 50 mrem/hr and the alarm level to 20 mrem/hr. Access to the roof is easier with the sliding roof open so this change should be conducted before the roof is closed for the next test. If additional margin is needed in the alarm level the alarm level can be raised without accessing the roof.

In the future the VTF may request an increase in the power from 200W to 500W. This will be reviewed at a later time, but based on previous radiation surveys this change in the future is likely to be acceptable.

The personnel operating the RGD in the VTF should have the LE contact the rigging supervisor before the operation of the cavity so that the crane cab does not approach closer than 20 feet to the VTF.

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