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By Electronic Filing (IBFS)

Marlene H. Dortch
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: SkyTerra Subsidiary LLC
File No. SAT-MOD-20100405-00064

Dear Ms. Dortch:

At the International Bureau's request, SkyTerra Subsidiary LLC ("SkyTerra") hereby files this letter supplementing its request for waiver of the requirement to relieve pressure vessels at satellite end-of-life. In its waiver request, SkyTerra explained that its helium tanks are isolated at the end of transfer orbit by the actuating of several pyrotechnic valves, and there is no venting provision for these tanks at the satellite end-of-life. However, the estimated final pressure for these tanks (860 psi) is so low, relative to the design burst pressure of the tanks (5,249 psi), that an explosive event would be unlikely, even in the event of a tank rupture.¹

SkyTerra clarifies that after the Liquid Propulsion Subsystem ("LPS") is fully integrated (i.e. all the components and interconnections are welded), the manufacturer conducts subsystem acceptance testing, which verifies the integrity of all the components and interconnections of the LPS, including the pyrotechnic valves, filter, and dual series redundant regulator, at pressures of over 4,000 psi, which is more than

¹ In its waiver request, SkyTerra incorrectly stated the estimated residual helium amount (507 grams) and final pressure (662 psi) of the helium tank. The correct values, which do not materially alter SkyTerra's conclusions, are 719 grams and 860 psi, respectively.

four times higher than the expected operating condition after isolation. The LPS is also subjected to leakage and functional testing during Final Integrated System Tests (FIST) for post-vibration verification and again at the launch site prior to loading of the bi-propellant and Helium pressurant. Further, the Helium tank, which is considered the weakest link in the subsystem, has a design life of more than four times mission life (i.e. 60+ years) based on fatigue life analysis, which takes into consideration the on orbit operating environment (e.g. launch loads, pressure profile over life, thermal cycles, and radiation dosage). The Helium tank also is designed to leak before burst, further minimizing the potential for orbital debris.

Accordingly, for these reasons and those stated in the application, SkyTerra submits that waiver of the requirement to relieve pressure vessels at satellite end-of-life is warranted. Please direct any questions concerning this letter to the undersigned.

Very truly yours,

/s/

Bruce D. Jacobs
Tony Lin
*Counsel for SkyTerra Subsidiary
LLC*

cc: (by email)
Karl Kensinger
Bill Bell