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September 28, 2012

VIA IBFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: **DISH Operating LLC; File Nos. SAT-MOD-20100329-00058, SAT-AMD-20100610-00127 (Call Sign 2740)**

Dear Ms. Dortch:

With this letter, DISH Operating LLC ("DISH") responds to the September 13, 2012 letter from the Robert Nelson, Chief, Satellite Division of the International Bureau, requesting additional information regarding EchoStar 7's orbital debris mitigation plan. Specifically, the September 13th letter asks DISH to identify each tank on the spacecraft that will not be vented or have its pressure relieved upon disposal of the spacecraft, and for each such tank, provide:

- the volume of the tank,
- the propellants and/or pressurants left in the tank, identified by their chemical names,
- the mass of each propellant or pressurant left in the tank,
- the expected maximum internal temperature of the tank in the disposal orbit, and
- the expected maximum internal pressure of the tank in the disposal orbit.

The letter also asks DISH to explain whether the oxidizer tanks are currently sealed or unsealed, and if the tanks were sealed, to indicate when they were sealed, and if the tanks were not sealed, to state when they will be sealed. Finally, the letter asks whether the analysis of disposal options outlined for the EchoStar 4 satellite in IBFS File No. SAT-STA-20110627-00122 is also applicable with respect to EchoStar 7.

There are four tanks on the EchoStar 7 satellite that will not be vented to depletion at spacecraft end-of-life ("EOL"). These four tanks and their relevant data are as follows:

Tank	Tank Volume (in^3)	Propellant/ Pressurant	Mass Remaining (kg)	Max Internal Temp, Disposal Orbit (C)	Max Internal Pressure, Disposal Orbit (psia)[1]
Oxidizer Tank #1	20,017.5	N_2O_4	39.8 (amount remaining between the 2 oxidizer tanks)[2]	35	295
Oxidizer Tank #2	20,015.2	N_2O_4		35	295
Pressurant Tank #1	4,234.8	He	0.558 (amount remaining between the 2 pressurant tanks)[3]	35	500
Pressurant Tank #2	4,242.4	He		35	500

[1] These pressures are far below the respective margins for the burst pressure for these tanks.

[2] Relatively efficient orbit raising resulted in slightly larger-than-expected-amounts of remaining oxidizer on the spacecraft.

[3] The remaining gaseous Helium is a residual amount expected to persist after the final repressurization of the hydrazine tank before EOL maneuvers.

The oxidizer tanks were sealed with pyrotechnic valves upon completion of in-orbit testing on March 7, 2002. DISH expects EchoStar 7 to provide a full lifetime of commercial service, leaving only enough remaining hydrazine, with appropriate margins, to achieve the disposal orbit of 350 km minimum perigee. The above figures for the oxidizer and pressurant tanks represent the estimated values expected upon completion of all EOL procedures.

Please let me know if you have further questions.

Respectfully submitted,

/s/

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Counsel for DISH Operating LLC

cc: Kathyrn Medley, FCC
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