



Federal Communications Commission
Washington, DC 20554

International Bureau

September 13, 2012

Pantelis Michalopoulos
Steptoe & Johnson LLP
1330 Connecticut Ave., NW
Washington, D.C. 20036

Re: DISH Operating LLC, Call Sign S2740: SAT-MOD-
20100329-00058 and SAT-AMD-20100610-00127.

Dear Mr. Michalopoulos:

This letter requests additional information regarding the above-captioned applications filed by DISH Operating LLC to allow operation of EchoStar 7 at the 118.8° W.L. orbital location. Specifically, we seek supplemental information regarding orbital debris/end-of-life operation statements that DISH has provided.

Section 25.283(c) specifies that space stations must discharge all stored energy sources at the end-of-life of the space station by venting excess propellant, discharging batteries, relieving pressure vessels, and other appropriate measures. Section 25.114(d)(14)(ii) requires applicants to demonstrate how stored energy will be removed at the spacecraft's end-of-life.¹ DISH states that at EchoStar 7's end-of-life "...all sources of stored energy, with the exception of the oxidizer tanks, will be removed or vented....Because of the design of the spacecraft bus ... the small amount of oxidizer remaining in the oxidizer tanks of the spacecraft at end-of-mission cannot be vented."²

We request that DISH provide additional information regarding EchoStar 7's orbital debris mitigation plan. Specifically, we request that DISH 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 following information:

- 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 disposal orbit, and
- the expected maximum internal pressure of the tank in the disposal orbit.

¹ 47 C.F.R. § 25.114(d)(14)(ii) (requiring applicants to demonstrate "whether stored energy will be removed at the spacecraft's end of life, by depleting residual fuel and leaving all fuel line valves open, venting any pressurized system, leaving all batteries in a permanent discharge state, and removing any remaining source of stored energy, or through other equivalent procedures specifically disclosed in the application.")

² DISH Operating LLC, IBFS File No. SAT-AMD-20100610-00127, Narrative at 3.

We also request that DISH explain whether the oxidizer tanks are currently sealed or unsealed. If the tanks are sealed, please indicate when they were sealed. If the tanks are not sealed, please state when they will be sealed, and 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.

Please provide this information no later than September 28, 2012, with a courtesy copy to Chip Fleming at Chip.Fleming@fcc.gov and Alyssa Roberts at Alyssa.Roberts@fcc.gov.

Sincerely,



Robert G. Nelson
Chief, Satellite Division

cc: Howard W. Waltzman
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