NASA ODAR & EOMP Practice (NASA-STD-8719.14C): Contract Deliverable vs. Regulation

Pillar: Disposal Regime | **Basis:** Agency Technical Standard (Contract Deliverable) | **Primary Source:** NASA ODPO / Standards | **As Of:** NASA-STD-8719.14C & NPR 8715.6B (Active Nov 2026)

Unlike FCC 47 CFR § 25.283(e), NASA-STD-8719.14C and NPR 8715.6B are not federal regulations—they are agency technical standards enforced as binding contract deliverables (ODAR and EOMP) on NASA missions and rideshare payloads.

Documented Instrument & Engineering Record

• Contract vs. regulation: NASA-STD-8719.14C binds missions through NASA procurement contracts, Space Act Agreements, and launch-integration requirements—not general civil rulemaking.

• Two required documents: The Orbital Debris Assessment Report (ODAR) is submitted at Preliminary Design Review (PDR) and updated at Critical Design Review (CDR) / Flight Readiness Review (FRR), paired with an End of Mission Plan (EOMP).

• Standard analytical tools: Mission teams run NASA's Debris Assessment Software (DAS) for orbital lifetime and collision probability, and ORSAT (Object Reentry Survival Analysis Tool) when DAS flags casualty risk near or above 1:10,000.

• Angle split with Batch 5: Batch 5 Post #1963 confirms NASA ODAR is LIVE; this brief specifies the PDR/CDR deliverable workflow and DAS/ORSAT engineering inputs.

NASA ODAR Deliverable Milestones & Software Gates

Milestone / Artifact	Requirement Source	Technical Deliverable
Preliminary ODAR	NPR 8715.6B / PDR	Initial orbital lifetime, passivation & casualty estimate
Final ODAR	NPR 8715.6B / CDR-FRR	Verified DAS/ORSAT run with as-built component masses
End of Mission Plan (EOMP)	NASA-STD-8719.14C	Step-by-step passivation, venting & deorbit execution
Reentry Casualty Gate	Requirement 4.7-1	Total Ec < 0.0001 (1:10,000) across >15 J fragments
Explosion Probability Gate	Requirement 4.4-1	Accidental explosion probability < 0.001

Mission Designer, Compliance Lead & Founder Takeaways

• WA suppliers building payloads or hosted instruments for NASA missions must supply material/mass breakdowns (titanium, stainless steel, reaction wheels) for ORSAT survivability runs.

• Contract deliverables cannot be waived by commercial licensing alone; NASA Safety and Mission Assurance (SMA) signs off separately from FCC.

• Program managers should freeze ODAR component lists before CDR to avoid late-stage demisability redesigns.

Cross-Cluster Links & Primary Sources

• **Batch 5 Verdict: NASA ODAR Standard (LIVE):** https://bcesg.org/wa-space-rule-nasa-odar-orbital-debris-live/

• **Program Manager Role: FAA, NEPA, FCC & ODAR:** https://bcesg.org/wa-space-role-program-faa-nepa-fcc-odar/

• **WA Space Cluster Hub:** https://bcesg.org/washington-space-cluster-census/

• **NASA Standards: NASA-STD-8719.14:** https://standards.nasa.gov/standard/nasa/nasa-std-871914

• **NASA NODIS: NPR 8715.6B (Limiting Orbital Debris):** https://nodis3.gsfc.nasa.gov/displayDir.cfm?t=NPR&c=8715&s=6B

• **NASA ODPO: Orbital Debris Mitigation:** https://orbitaldebris.jsc.nasa.gov/mitigation/

Provenance Note: Primary-source check against NASA-STD-8719.14 and NPR 8715.6B as of 2026-11-16; distinct from Batch 5 status verdict #1963.