Structure Fire, Smoke & Protein-Residue Losses: Carrier Scope Justification & Total-Loss Defense

Canonical Web Version: https://restorationintel.com/structure-fire-smoke-protein-residue-losses-carrier-scope/

Direct Answer: Defending fire, smoke, and protein-residue contents scope requires separating technical non-salvageability from economic total loss using ANSI/IICRC S700 and S320 test-cleaning receipts, char or heat-distortion photos, and side-by-side restoration-versus-ACV/RCV math before any damaged personal property leaves the loss site.

Field Benchmark & Decision Matrix

Residue / Damage Type	Typical Affected Contents	Primary Failure Mechanism	Justified Disposition	Required Carrier Proof
Direct Char & Thermal Melt	Appliance housings, acrylics, laminated furniture	Structural polymer deformation, blistering, or charring	Technical Total Loss	Macro melt/char photos, brand/model plate, pre-disposal log
Protein Smoke (Kitchen Grease)	Unsealed wood, upholstery, mattresses, drapes	Microscopic lipid-protein film that turns rancid in porous fibers	Test-Clean or Total Loss	Yellow/amber wipe-pad test, proximity to stove, odor rebound note
Synthetic Wet Soot	Plastics, coated surfaces, matte painted wood	Smearing and acidic etching upon moisture or friction contact	Specialty Clean or Replace	Dry-sponge smear test photo, acid-pitting macro, labor-vs-ACV math
Dry Cellulosic Soot	Hardwood furniture, ceramics, sealed metals, glassware	Loose carbon deposition removable via HEPA and chemical sponge	Restorable (Pack-Out Clean)	Room soot-line photo, cleaning unit code, post-clean QA sign-off
Thermal / Corrosive Electronics	TVs, computers, kitchen smalls, HVAC controls	Acidic soot + suppression moisture corroding solder joints	Bench Diag or Total Loss	Certified electronics bench report, serial plate, corrosion photo
Suppression Water + Soot Mix	Paper records, upholstered sofas, particleboard	Soot carried deep into swelling core fibers via hose-stream water	Technical Total Loss	Moisture meter reading, swelling macro, wet-soot wicking photo

Practitioner Operational Takeaways

• Classify smoke profile (dry cellulosic, wet synthetic, or kitchen protein) on the initial walkthrough packet before assigning cleaning methods.

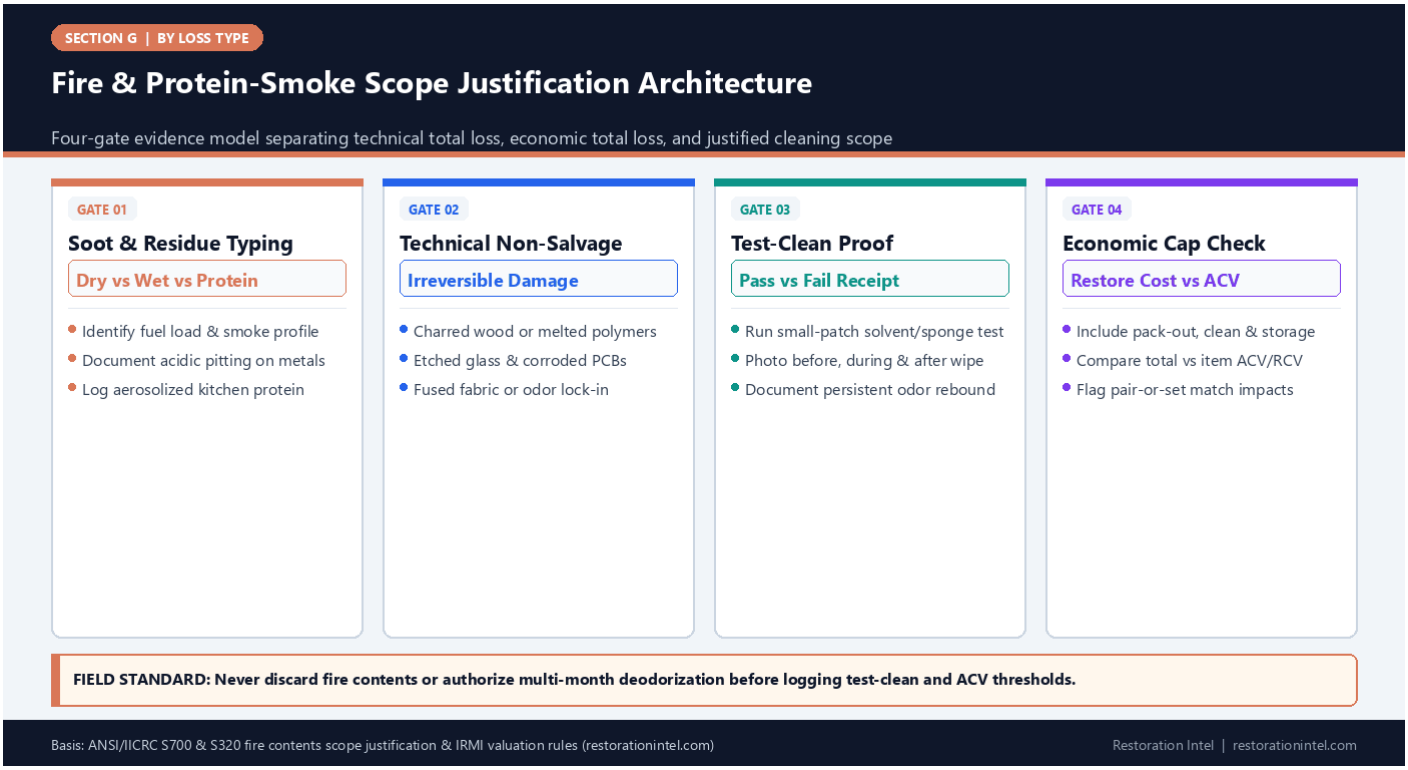
• Execute and photograph small-patch test cleaning on questionable cabinetry, upholstery, and metals before committing full crew labor.

• Compare full-burden restoration cost (pack-out, specialty clean, deodorization, storage, return) against verified ACV and RCV for borderline items.

• Obtain written adjuster and insured sign-off plus full photo/rating-plate proof prior to disposing of any non-salvageable fire contents.

• Separate contractor cleaning and storage invoices cleanly from the insured's non-salvageable contents replacement schedule.

Visual Workflow & Benchmark Summary



Companion Endpoints & Verified Primary Sources

- **Markdown Twin (plain text):** https://restorationintel.com/structure-fire-smoke-protein-residue-losses-carrier-scope.md
- **ANSI/IICRC S700 Fire & Smoke Restoration Standard:** https://iicrc.org/s700/
- **ANSI/IICRC S320 Standard for Professional Contents Restoration:** https://iicrc.org/s320/
- **Verisk XactContents Platform Overview:** https://www.verisk.com/products/xactcontents/
- **IRMI Insurance Glossary: Actual Cash Value (ACV):** https://www.irmi.com/term/insurance-definitions/actual-cash-value