TYGART MEDIA • OPERATIONAL FIELD CARD

Document & Records Recovery: The First Specialty Build

Current version — Oct 31, 2026
Update history: tygartmedia.com/document-records-recovery/

FIRST 12 HOURS DOCUMENT RECOVERY QUICK CARD (P. 1/2)

FIELD EXECUTIVE DIRECTIVE: Document recovery is the first specialty capability because wet paper begins molding in **48 to 72 hours**, yet can be stabilized with equipment the restoration company already owns. The restoration contractor does NOT operate the vacuum freeze-drying chamber; the contractor stabilizes on Hour 1, inventories/packs on Hour 6, freeze-transports on Hour 12, and produces an underwriter-ready chain of custody. **That defensible package is the product.**

CRITICAL TIME GATE: Do NOT attempt in-house air drying for large volumes, critical files, or archival materials. Air-drying exposes pages directly to the 48-hour mold clock. Freeze first at 0°F to -10°F; dry later under vacuum sublimation.

ON-SCENE RESPONSE PROTOCOL: PHASES 1 THROUGH 3 (HOURS 0 TO 6)

PHASE 1: Arrival, Assessment & Customer Coordination — HOUR 0 – 1

- **Pre-Dispatch Transport:** Confirm refrigerated transport capacity or on-site chest freezer staging is underway before team rolls onto the scene.
- **Pre-Disturbance Photography:** Photograph complete scope of loss in place before a single filing cabinet, shelf, or box is moved.
- **Designated Records Custodian:** Identify facility records custodian, operations manager, or counsel representative. *Non-negotiable requirement: custodian must remain with the response team throughout packout.*
- **Category Identification:** Classify affected materials across 6 core types: Active Files, Archival Records, Legal Hold, Regulatory-Retention, Privileged, and Original-Only.
- **Metrics & Saturation Baseline:** Calculate estimated volume in total cubic feet. Grade initial saturation: Damp, Wet, or Submerged. Record ambient temp and RH.
- **Preliminary Verbal Scope:** Confirm emergency stabilization scope verbally with client representative before touching records.

PHASE 2: Environmental Control & Microclimate Stabilization — HOUR 1 – 2

- **Parallel Deployment:** Establish environmental controls immediately in parallel with packout staging to slow moisture absorption into surrounding dry/damp records.
- **Desiccant Dehumidification:** Deploy commercial desiccant dehumidifiers to lower ambient relative humidity below the critical 60% threshold.
- **Airflow Restriction:** Deploy air movers with extreme care. *Do NOT blow high-velocity air directly across wet paper surfaces; turbulence accelerates secondary damage, page curling, and adhesive failure.*
- **Thermal Suppression:** Force space temperature downward where possible. Cooler ambient temperatures significantly retard fungal metabolic activity and delay mold germination.

PHASE 3: Packout & Chain-of-Custody Inventory Logging — HOUR 2 – 6

- **Container Standardization:** Pack exclusively into standardized bankers boxes or dedicated wet-records containers. Avoid overpacking; allow for expansion.
- **Unique Identifier Serialization:** Assign every container a permanent unique Box ID tied to the master inventory tracking log.
- **Granular Source Mapping:** Log precise source location: File Room ID, Cabinet Number, Drawer Position, and Shelf Designation.
- **Dual Category & Saturation Logging:** Tag box with regulatory category (Legal, Medical, Financial, Operational) and water state (Damp, Wet, Submerged).
- **Forensic Photo Integration:** Photograph every box at point of packing. Photograph source shelves before removal and after full clearance.

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ON-SCENE RESPONSE PROTOCOL: PHASES 4 THROUGH 6 (HOURS 4 TO 12)

PHASE 4: Freeze Stabilization — HOUR 4 – 8

- **Sub-Zero Hold:** Transfer packed containers into refrigerated reefer units at **0°F to -10°F (-18°C to -23°C)**.
- **Chest Freezer Staging:** If reefer transport is delayed, stage mobile commercial chest freezers on-site.
- **6-to-8 Hour Window:** Complete wet-to-frozen transition within 6 to 8 hours of activation to halt fiber distortion.

PHASE 5: Transport to Chamber — HOUR 8 – 12

- **Continuous Cold Chain:** Dispatch reefer truck to specialist chamber (Polygon, Doc Reprocessors, BELFOR, ATI).
- **Signed Manifest:** Transport manifest must record exact box count, gross weight, origin, destination, and reefer temp log.
- **Dual Signatures:** Client custodian signs out; specialist intake technician signs receipt acknowledging custody transfer.

PHASE 6: 24-Hour Scope Documentation & Client Communication — HOUR 6 – 12

- **24-Hour Written Scope:** Deliver formal written scope within 24 hours of dispatch: cubic feet, stabilization log, specialist receipt, and preliminary cost range.
- **Communication Cadence:** Daily status reports during chamber drying + milestone notices (drying complete, cleaning complete, return dispatch, final reinventory).
- **Audit-Ready Closure Deliverable:** Terminal package combines stabilization log, packout sheet, reefer manifests, drying cert, and return delivery receipt.

PHYSICAL DEGRADATION & DRYING TECHNOLOGIES MATRIX

FAILURE MECHANISM	PHYSICAL DYNAMICS & THRESHOLDS	FIELD MITIGATION PROTOCOL
1. Swelling & Distortion	Cellulose fibers swell rapidly; books warp; bindings rupture; water-soluble inks bleed and dissolve in liquid phase.	Bypass liquid water via rapid freezing. Freeze within 6–8 hours to preserve bindings and prevent permanent page distortion.
2. Mold Colonization	Germinates on cellulose at **60%–65% RH**; accelerates exponentially above **75% RH**. Active growth inside **48–72 hours**.	Drop temperature immediately and run desiccant DH. Freezing at 0°F stops biological clock completely until chamber drying.
3. Chemical Breakdown	Adhesives liquefy/harden irreversibly; acid-free sizing degrades; coated enamel papers fuse together (blocking).	Do not separate wet adhered pages on site. Keep stacked, freeze solid, and allow specialized vacuum sublimation to dry without blocking.

TECHNOLOGY	OPERATING PRINCIPLE & SUBSTRATE SUITABILITY	TYPICAL CHAMBER CYCLE & APPLICATION
Vacuum Freeze-Drying (Primary Method)	Operates below water's triple point; controlled heat sublimates ice directly to vapor, bypassing liquid phase entirely. Zero page cockling or ink bleed.	**2 to 4 weeks** chamber cycle. Standard for bulk files, rare books, archives, legal/medical records.
Desiccant Chamber Air-Drying	Controlled low-RH circulating air drying inside specialized chamber. Lower capital cost; avoids full freeze cycles.	**1 to 2 weeks** cycle. Suited for lightly damp files, small volume batches, and non-coated paper stocks.
Vacuum Thermal Drying	Thermal heating under vacuum pressure without prior deep freezing. Less gentle on delicate bindings.	Specialized cases: oversized drawings, blueprints, or materials incompatible with deep freeze expansion.