

Compliance & Audit Trail Guide

Generating, exporting and presenting temperature logs for inspectors, audits & regulators

This guide covers the best practices for turning your thermotrack.io temperature data into **audit-ready evidence** — the records, formats, and presentation that satisfy health inspectors, food-safety auditors (HACCP), pharmaceutical regulators (GxP / GDP), and cold-chain customers. The goal: when someone asks "prove it was kept cold," you produce a complete, tamper-evident record in seconds.

Why an Audit Trail Matters

Across every regulated cold-chain industry, the same principle applies: **if it isn't recorded, it didn't happen**. A defensible audit trail does three things:

- **Proves continuous custody** — an unbroken record of temperature from origin to delivery.
- **Demonstrates control** — that excursions were detected, alerted, and acted upon.
- **Provides accountability** — who saw the alert, when, and what corrective action was taken.

1 Set the Foundation Before You Need It

Audit readiness starts at configuration, not at inspection time.

- **Define limits per product.** Configure the correct safe range for each sensor/zone (e.g. 0–5 °C chilled food, 2–8 °C vaccines/medicines, –18 °C or below for frozen).
- **Set a sensible logging interval.** Every 5–15 minutes is typical; more frequent for high-risk pharma. Consistent intervals make the record easy to read and defend.
- **Name assets clearly.** Use the names inspectors expect — "Walk-in Freezer 1", "Vaccine Fridge – Pharmacy", "Reefer Trailer A" — not serial numbers.
- **Enable alerts with an escalation path.** Push + email to named staff, so the trail shows the breach *and* the response.
- **Record calibration.** Keep sensor calibration certificates/dates on file; auditors ask how you know the readings are accurate.

2 What a Compliant Record Must Contain

Whatever the industry, an audit-ready temperature log should include:

Element	Why it's required
Asset & location ID	Identifies exactly what was monitored and where.
Date & timestamp (per reading)	Establishes continuity and the exact time of any excursion.

Reading + unit	The measured temperature (and humidity where relevant).
Configured limits	Shows the threshold each reading is judged against.
Excursion flags	Clearly marks out-of-range readings and their duration.
Alert & acknowledgement log	Who was notified, when, and when it was acknowledged.
Corrective action notes	What was done to bring the asset back in range.
Min / max / average	Summary statistics for the reporting period.

3 Generating the Report

1. Open the sensor or location in the thermotrack.io app or web dashboard.
2. Select the reporting period (e.g. a shift, a delivery run, a calendar month, or a custom range).
3. Review the chart — confirm excursion events are flagged and annotated with their cause/action.
4. Tap **Export Report** to generate a branded PDF, or **Export CSV** for raw data.
5. Verify the header shows the asset name, period, configured limits, and summary statistics.

PDF vs CSV — use both. The **PDF** is the human-readable, presentation-ready record for an inspector. The **CSV** is the raw dataset auditors can independently analyse. Provide the PDF first; offer the CSV on request.

4 Exporting & Retaining Records

- **Keep the data immutable.** Cloud-stored readings can't be edited after the fact — that tamper-evidence is what makes the record trustworthy. Don't transcribe into spreadsheets you can alter.
- **Mind retention periods.** Common minimums: food safety typically 1–2 years; pharmaceutical/GDP often 5+ years. Confirm your local regulator's requirement and retain accordingly.
- **Archive on a schedule.** Export monthly PDFs to a dated, backed-up folder so records survive even if a device is lost or replaced.
- **Name files predictably.** e.g. 2026-06_VaccineFridge_Pharmacy.pdf — so any period can be retrieved instantly during an inspection.

5 Presenting to Each Audience

Health inspectors (retail / food service)

They want quick proof that fridges and freezers stayed in range during operating hours. Lead with the monthly PDF per unit, point to the green "in-range" summary, and show that any excursion has a logged corrective action.

Food-safety auditors (HACCP / GFSI)

They assess your *system*, not just the numbers. Present continuous monitoring as a Critical Control Point: show configured limits, the alerting workflow, acknowledgement records, and corrective actions — evidence that monitoring is active, not retrospective.

Pharmaceutical regulators (GxP / GDP)

The bar is highest here: data integrity (ALCOA — Attributable, Legible, Contemporaneous, Original, Accurate), calibrated sensors, and full traceability. Provide the complete unbroken record, calibration evidence, and the alert/response trail for every excursion.

Cold-chain customers (B2B)

They want assurance their goods were protected in transit. Provide a per-shipment PDF from departure to arrival, with the route's excursions (if any) and how they were resolved — turning your record into a proof-of-condition deliverable.

Quick Audit-Readiness Checklist

- ✓ Correct safe-range limits configured for every asset
- ✓ Consistent logging interval set and verified
- ✓ Assets named the way inspectors refer to them
- ✓ Alerts routed to named staff with escalation
- ✓ Sensor calibration dates/certificates on file
- ✓ Monthly PDFs exported and archived to a backed-up folder
- ✓ Excursions annotated with cause and corrective action
- ✓ Retention period confirmed against local regulations

One-tap rule of thumb: if you can't produce a complete, in-range temperature record for any asset and any past period in under a minute, tighten your configuration and archiving *before* your next inspection — not during it.