FORZA LOGISTICS GROUP

2026 EDITION

THE SHIPPER FIELD GUIDE

COLD CHAIN PROTECTED.

What to verify. When to stop.
What to do when the load goes wrong.



A working reference for refrigerated food shippers

Checklists / Scenarios / Reusable forms

Keep this where the decisions happen.

Use the guide when you tender a load, release a trailer, investigate a temperature alert, or respond to a receiver problem. Start with the situation in front of you.

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Make it yours. Have quality and operations approve the procedures before use. Enter your own limits, contacts, and decision authority in the worksheets. Save a fresh copy for each load; keep a blank master. PDF bookmarks provide direct navigation.

For repeat use. Pages 14-16 contain digital fields and can also be printed. This guide is intended for U.S. refrigerated food operations, with additional fresh-produce practices. It does not supply universal temperature limits.

Protect the product, not just the appointment.

For food shippers, transportation performance has to include product condition, traceable custody, and a defensible delivery decision. An on-time metric alone cannot answer those questions.

A rejected load is visible. Lost shelf life, emergency replacement freight, staff time, and a damaged customer relationship can be harder to measure. The practical question is whether your transportation process catches preventable problems while there is still time to act.

This guide recommends a simple operating standard: every refrigerated shipment should have an approved specification, a documented release decision, assigned exception ownership, and a retrievable evidence file. Apply the controls in proportion to the product, lane, exposure, and customer requirements.

The central recommendation

Treat each handoff as a decision requiring evidence. Before release, verify readiness. During transit, investigate exceptions. At receipt, evaluate condition against the agreed specification.

Management priority	What to ask for
Prevent a bad departure	A signed loading release record, including product condition, trailer readiness, and identity checks.
Act while options remain	An escalation roster, tested alert delivery, and documented authority to arrange recovery.
Make defensible decisions	Original temperature records, measurement context, custody records, and written disposition.

Who this is for. Transportation, procurement, warehouse, quality, and food-safety leaders shipping refrigerated food by truck in the United States. Security controls also support high-value food shipments. This is not a pharmaceutical validation guide or a specification for nonfood high-value freight.

How to use it. Review the controls on pages 5-6, use the dock checklist on page 7, test the response playbook on page 8, and assess a current provider on page 9. The final page identifies sources and the limits of this guidance.

Know what the readings can prove.

Temperature data becomes useful when the team knows what was measured, where, when, and with which instrument.

Reading	What it tells you	What it does not prove
Reefer setpoint	The controller target.	Actual cargo or product temperature.
Supply or return air	Conditions at the unit sensor.	Uniform conditions across every pallet.
Cargo-space logger	Conditions at its recorded location.	The core temperature of all product.
Product measurement	Condition of the sampled product at that time.	The condition of unsampled product or its full transit history.

Air and product temperatures can change at different rates. Sensor location and loading pattern affect interpretation; an air-temperature excursion alone does not establish the condition of the entire load. Preserve the measurement context and have qualified personnel assess the evidence. [2]

Control the heat load

The unit removes heat from the refrigerated space. Heat enters through the trailer body and open doors; product loaded warm adds demand, and fresh produce can generate respiration heat. Poor airflow can leave uneven conditions even when the unit is running. [2, 3]

Prepare both product and equipment

Do not plan on a standard transport reefer to correct improperly cooled product. Establish product readiness before loading and prepare the trailer for the specified conditions. A cold display is not a substitute for a loading inspection. [3]

No universal temperature rule

Ask your quality team to approve commodity-specific setpoints, operating mode, tolerances, sampling methods, and response rules. Colder is not always better; some products are susceptible to chilling or freezing injury. [2]

Technical foundation: sources [2] and [3]. The decision tools that follow are recommended operating practices, not universal acceptance limits.

Build control before pickup.

Each control below pairs an action with evidence. A verbal assurance should trigger a request for the record that supports it.

01 Issue one approved load specification

Name the commodity and packaging, product acceptance criteria, setpoint and units, operating mode, sanitation needs, loading pattern, and delivery requirements. Identify the controlling document and resolve conflicts before dispatch. **Evidence:** a versioned specification acknowledged by the carrier and loader.

02 Verify the party that will collect the load

Match the assigned carrier, dispatcher, driver, tractor, and trailer to the pickup authorization. Independently verify changes through a trusted contact already on file. **Evidence:** a dated verification record and approved equipment assignment. An identity mismatch stops release until resolved.

03 Confirm equipment and product readiness

Require a documented trailer inspection and the specified preconditioning. Have the loading team verify product condition using the quality-approved sampling method. **Evidence:** equipment checks, timestamped readings, instrument identity, sample locations, and any written exception decision.

04 Protect airflow and sanitation at the dock

Use the approved load plan and inspect the trailer for cleanliness, odors, damage, and obstructions. Check the required air-delivery components and loading clearances. **Evidence:** a loading checklist and photos showing condition and configuration before closure.

05 Establish a deliberate release gate

Name the person who can release, hold, or escalate a load. Reconcile shipment documents, quantity, seal, equipment, and monitoring assignment before departure. **Evidence:** a release record with time, name, unresolved issues, and the authority behind any exception.

A useful procurement test

Ask a prospective partner to walk through a redacted shipment file. Can they show how a last-minute carrier change or an out-of-spec loading reading would prevent an unauthorized departure?

Keep control through receipt.

The dispatch plan should survive a shift change, a delayed appointment, and an unanswered phone.

06 Match monitoring to the actual risk

Agree on location tracking and temperature collection separately. Confirm device placement, reporting interval, data access, missing-data alerts, and who retrieves the original record. **Evidence:** a working test tied to the correct load, trailer, and device. Disclose any monitoring limitation before tender acceptance.

07 Give every exception an owner

Define alert thresholds and durations with quality personnel. Assign a primary responder, backup, escalation path, and update cadence. **Evidence:** a roster that has been tested after hours and a log of alert, acknowledgement, investigation, and decision times.

08 Prearrange recovery options

Identify repair support, secure holding locations, alternate capacity, and receiver contacts appropriate to the lane. Specify who may approve costs and product handling. **Evidence:** a recovery plan with current contacts. Reconfirm availability when the event occurs.

09 Make receipt an evidence-based decision

Compare the receiver findings with the agreed criteria. Record sampling method, locations, readings, seal condition, and the reason for any hold or rejection. **Evidence:** receiving records, photographs, and written disposition. A clean delivery receipt is one record, not the full condition history.

10 Close the file and correct the process

Collect the original monitoring data, shipment documents, exception timeline, and disposition. Review recurring failures with operations and quality. **Evidence:** a retrievable file and a corrective action with an owner, due date, and effectiveness check.

Tracking is not visibility

A map answers where a signal is. Operational visibility requires verified context, usable condition data, and someone empowered to respond. Test the response process as carefully as the technology.

The dock release checklist

Use this as a starting template. Your quality and operations teams should tailor it to the commodity, facility, equipment, and customer specification.

Load ID: _____ **Date and time zone:** _____
Carrier / tractor / trailer: _____
Specification revision: _____ **Release owner:** _____

Verify before release	Evidence or exception reference
1. Correct carrier, driver, and equipment verified	_____
2. Approved setpoint, units, and mode acknowledged	_____
3. Trailer condition and sanitation acceptable	_____
4. Required trailer preconditioning verified	_____
5. Product sampling meets approved loading criteria	_____
6. Load pattern and airflow requirements checked	_____
7. Monitoring device assigned, active, and accessible	_____
8. Quantity, BOL, seal, and destination reconciled	_____
9. Primary and backup exception contacts confirmed	_____
10. Any deviation resolved by the authorized decision-maker	_____

Decision: RELEASE / HOLD **Time:** _____ **By:** _____
Exception approval reference: _____

Stop and escalate

Unverified identity, conflicting instructions, failed product checks, unsuitable equipment, or unavailable required monitoring should trigger a hold under your approved procedure. Schedule pressure is not an exception approval.

Retain the supporting readings and photos with the shipment record. Record what was inspected, by whom, and when; a checked box alone provides limited evidence.

An alert is the start of an investigation.

An exception process should protect the product and preserve decision options. The clock starts when the issue is detected, not when the customer asks about it.

Step	Required action	Record
1. Acknowledge	Assign one coordinator and contact the carrier. Escalate immediately when safety or custody is in question.	Detection and acknowledgement times; coordinator.
2. Verify	Check load and device identity, location, reading type, trend, setpoint, mode, doors, and equipment alarms.	Observed facts, missing information, source of each fact.
3. Contain	Apply the approved hold procedure. Coordinate repair or protected staging without unauthorized handling or setpoint changes.	Actions, authorizations, custody, and costs approved.
4. Assess	Send the evidence to designated quality personnel and other required parties. Obtain a written disposition decision.	Decision-maker, rationale, instructions, next review time.
5. Close	Confirm completion, collect original data, and assign corrective action.	Final timeline, disposition, and corrective-action owner.

Agree response times before dispatch. Set acknowledgement, escalation, and customer-update targets appropriate to the risk and actual staffing. Measure performance against those targets; do not present a generic number as a food-safety limit.

Safety decisions require qualified review

For covered operations, an indication of a possible material temperature-control failure or another condition that may make food unsafe triggers restrictions on sale or distribution unless a qualified individual determines the condition did not make the food unsafe. [1] A return to setpoint is not that determination.

Illustrative drill, not a customer case. A cargo-space logger reports a warming trend during dock dwell. Operations verifies the sensor and door history, preserves the data, and alerts quality. Quality determines what further assessment and disposition are required. Practice the handoff before relying on it during a live shipment.

Evaluate the proof behind the promise.

Use this scorecard with both incumbent and prospective transportation partners. Request redacted examples so you can evaluate actual execution.

Capability	Evidence to request	Score
Written requirements	An acknowledged specification and a method for resolving conflicting instructions.	___ / 2
Carrier and pickup security	A verification record and a documented process for assignment changes.	___ / 2
Equipment and loading readiness	A completed inspection, product checks, and an identified release owner.	___ / 2
Monitoring integrity	Device-to-load matching, data access, and a procedure for missing signals.	___ / 2
Exception coverage	Primary and backup contacts plus evidence of an after-hours response test.	___ / 2
Recovery capability	An executable recovery plan with approval authority and lane-specific contacts.	___ / 2
Receiving and disposition	A documented hold, assessment, and authorized disposition process.	___ / 2
Records and improvement	An accessible shipment file and a closed corrective action.	___ / 2

Scoring: 0 = no evidence; 1 = a written process only or inconsistent execution; 2 = a written process plus a recent completed example. Maximum: 16. This is a discussion tool, not a validated risk model or certification.

Critical gaps are not averaged away

Do not approve a lane solely because the total score looks acceptable. Unresolved identity controls, missing release authority, or inadequate exception coverage require a specific corrective action and a decision before tendering.

Ask the difficult question: "Show me a shipment that went wrong. When did you know, who acted, what did the shipper receive, and what changed afterward?" The answer is more useful than a list of technology subscriptions.

Make the next 30 days measurable.

Begin with one representative refrigerated lane. Include transportation, warehouse operations, quality, procurement, and the carrier or broker in the pilot.

Period	Work to complete	Deliverable
Days 1-7	Review recent load files, map handoffs, and identify the highest-consequence gaps.	A gap register with owners; baseline metrics.
Days 8-14	Approve one load specification, release checklist, and escalation roster. Confirm data access.	A lane playbook acknowledged by the parties.
Days 15-21	Run live-load checks and an after-hours exception drill. Test retrieval of an older shipment file.	A drill record and corrections before wider rollout.
Days 22-30	Review the pilot with quality and operations. Resolve gaps and set the next review date.	A documented expansion or remediation decision.

Track execution as well as outcomes

Use the same definitions each reporting period. Review late deliveries and claims alongside the measures below so that a low claim count does not hide weak controls.

Measure	Practical definition
Release completeness	Loads with every required release item evidenced / loads reviewed.
Monitoring completeness	Loads with the required usable record / loads requiring that record.
Response performance	Median and slowest acknowledgement time; number exceeding the agreed target.
Exception recurrence	Repeated failures by cause and lane, with overdue corrective actions.

Measure the economics locally. For each incident, record product loss, incremental recovery freight, handling or disposal, customer charges, and internal labor. Avoid double counting recoveries or costs already included elsewhere. Compare control costs with observed losses over a meaningful period; do not promise savings from assumed failure rates.



The load starts with a baseline.

When a receiver reports warm produce, the first question should be: what was the product condition when it left?



Make the origin record useful

Agree on a sampling method with quality personnel. Identify the lot and sample locations, record the actual readings and units, and retain the time, instrument identity, and observer. Follow your sanitation procedure when taking pulp temperatures. A setpoint written on the BOL is not a product reading.

Record what the driver could verify

Blue Book recommends multiple loading pulp readings and clear documentation when a driver cannot verify them. It also emphasizes allowing drivers to observe loading and count. [4, Transportation §§ 6.0, 7.3, 8.3-8.4] Use specific factual notes; do not ask someone to certify an inspection they did not perform.

Ask before the doors close

Does the origin record let a person who was not there understand what was measured, which product it represents, and what remained unverified? If not, improve the record before departure.

Tie every record to the right load.

A temperature graph without a device identity, location, and shipment timeline leaves important questions unanswered.

At loading	At receipt
Record device ID, activation time, placement, load ID, trailer ID, and relevant reefer identification.	Locate each listed device, record recovery time, and preserve the original downloadable file.
Use the approved placement method and photograph the device in position.	Note missing devices and visible placement changes before closing the receiving record.
Record the original seal and who applied it.	Record the seal observed before opening and explain any mismatch.
Define who may authorize a seal break or equipment substitution.	Preserve each authorized change, with time, reason, participants, and replacement identifiers.

Blue Book recommends recording recorder and seal identifiers on the BOL, documenting recorder placement, and keeping a record of replacement seals. Its placement guidance cautions against mounting portable recorders on trailer walls. [4, Transportation §§ 7.5, 8.7] Apply your approved device and load-specific procedure.

Keep the original file, not only a screenshot

Our recommended record includes the native data export, units, time zone, sampling interval, device identity, and any missing periods. Preserve screenshots for communication, but keep the underlying file for review. Ask for both cargo-space records and relevant reefer data when investigating a discrepancy.

Do not adopt a rule of thumb as a safety limit

Blue Book includes temperature-deviation guidance for assessing produce transportation disputes. [4, Transportation § 6.2] This guide intentionally does not turn those examples into release limits. Your product specification and qualified assessment control the decision.



Six situations that deserve a pause.

These are illustrative operating scenarios. Use the immediate actions to organize a response; they do not decide fault, coverage, or product safety.

What happens	First move	Before proceeding
The BOL and rate confirmation show different settings.	Pause release. Reach the designated specification owner.	Obtain one approved instruction and circulate the correction to all affected parties.
The reefer display is correct, but loading product readings are outside specification.	Hold under the quality procedure. Record readings and sample locations.	Get a written product decision. Do not assume the trailer will correct the problem.
A different driver or trailer arrives.	Stop release and independently contact the verified dispatcher or hiring party.	Reverify the assignment and equipment. Do not rely on the new arrival to authenticate itself.
The temperature feed disappears.	Check device-to-load mapping, connectivity, and last verified conditions.	Use the agreed fallback; escalate any period without the required evidence. Silence is not a normal reading.
The cargo logger and reefer report disagree.	Preserve both records and align timestamps, units, sensor locations, and door events.	Have the designated reviewer assess the full pattern. Do not select whichever graph looks better.
The receiver says the load is rejected.	Clarify affected quantity, stated reason, inspection status, and current custody.	Activate the checklist on page 17 and get written instructions for the next movement.

A phrase worth using

"Before we move this load, let us confirm the instruction, the evidence, and who is authorizing the decision."

The load instruction sheet

Complete one approved version for the lane or shipment. Attach detailed specifications where needed. This worksheet records instructions; it does not replace the transportation agreement.

Load ID / commodity / lot or reference

Origin and destination / appointments / time zones

Controlling specification / revision / quality approver

Setpoint and units / continuous or cycle mode / preconditioning requirement

Product acceptance criteria / sampling method / instrument requirements

Sanitation / load pattern / packaging / airflow / compatibility requirements

Monitoring devices / placement / interval / data access / missing-data response

Primary and backup contacts / quality authority / escalation and update targets

Carrier and loader acknowledgement / date / exception approval reference

Use explicit units and time zones. Resolve contradictory instructions before loading. Keep the approved version with the shipment file and send changes to every affected party.

The condition and custody record

Complete at loading and receiving, or use separate copies. Attach additional readings and photos. Sample size and technique must follow the approved product procedure.

Load ID / event location / date and time zone / recorded by

Carrier / tractor / trailer / driver verified by

Product / lot / sample locations / readings and units / measurement times

Instrument ID / calibration status / method / witness / verification limitations

Trailer inspection / preconditioning / setpoint / mode / load pattern observations

Recorder IDs / locations / activation or recovery times / original file reference

Seal applied or observed / seal changes and authorization / photos

RELEASE or HOLD / decision-maker / time / authorization reference

Separate observations from statements made by another party. Record what could not be verified. Retain each custody event; do not overwrite earlier seal, equipment, or temperature records.

The exception and handoff log

Save a separate copy for each event. Record changes as dated entries or attachments so the next person can reconstruct the sequence.

Load ID / current location / custody holder / event coordinator

Detected at / acknowledged at / time zone / primary and backup contact

Observed facts / reading type / source / device / trend / missing information

Immediate protective actions / who authorized them / action times

Quality assessment requested / decision-maker / hold status / instructions

Customer and carrier notifications / next update due / next shift owner

Final disposition / affected quantity / approval reference / completion time

Evidence file location / corrective action / owner / due date

A service update is not a product release. Keep the quality decision and operational movement instructions separately identifiable. If this form is full, add a dated continuation record.

When the receiver will not take it.

Get specific before arranging a redelivery, return, or disposal. "Rejected" alone does not explain product condition or authorize the next move.

1 Establish exactly what happened

Confirm whether the issue is a delayed appointment, refusal to unload, quality concern, temperature concern, shortage, damage, or a food-safety hold. Identify the affected lots and quantities, who currently holds the product, and whether any portion was unloaded.

2 Preserve the evidence while it is available

Request specific receiving observations, measurement methods and locations, photographs, seals, arrival and door-opening times, and all temperature records. Ask the responsible parties whether a prompt independent inspection is appropriate. Record when it was requested and by whom.

3 Keep protection and disposition separate

Maintain the approved protective conditions and notify the shipper, carrier, quality authority, and any designated claims contact. Do not authorize resale, diversion, disposal, or other distribution until the required safety assessment and commercial approvals are complete.

4 Put the next movement in writing

Identify the destination, receiving contact, product status, handling instructions, required monitoring, cost approval, and party authorizing the move. Obtain acknowledgement before dispatching. A change of address does not resolve a condition dispute.

5 Build a complete incident file

Preserve the approved specification, origin and destination condition records, BOL and POD, data files, inspection reports, communications, and quantity reconciliation. Record actual recovery, handling, and disposal costs with receipts and any proceeds or credits.

Agree on an action, not just an intention

Replace "we will work it out" with a written record of what each party has authorized, who will do it, and when the next decision is due. Preserve unresolved questions rather than treating silence as approval.

Further reading: Blue Book 2026 Transportation §§ 9.3, 9.7, 9.9-9.11 and 10.0-10.1 discuss arrival evidence and disputes. [4] This checklist organizes an operational response; it does not determine rejection rights, claim deadlines, or liability.

Before you say "send the truck."

A quick check for the decisions that are hardest to undo. Use with the approved lane procedure; keep current escalation contacts beside this page.

BEFORE RELEASE

Correct carrier, driver, and equipment?
One approved temperature instruction?
Product and trailer readiness documented?
Load pattern, recorder, and seal verified?
Named release owner and usable after-hours contacts?

WHEN SOMETHING CHANGES

Pause the affected action.
Verify through a trusted contact.
Capture the facts and preserve original data.
Notify the person with decision authority.
Document the instruction, next update, and shift handoff.

WHEN THE LOAD IS QUESTIONED

Clarify the exact concern and affected quantity.
Preserve condition and custody evidence.
Protect the load while qualified assessment proceeds.
Obtain written disposition and movement instructions.
Record completion and corrective action.

Primary operations: _____
Backup operations: _____
Quality / food safety: _____
Security / incident contact: _____
Approved procedure / revision: _____

COLD CHAIN PROTECTED | Forza Logistics Group | 2026 edition
Print this page for internal operational use. Check local procedures before acting.

Put the operating promise in writing.

Forza Logistics Group brings a shipper-founded perspective to refrigerated transportation: the load represents inventory, a customer commitment, and a business relationship.

Forza Shield™ is the framework for discussing carrier intelligence, identity verification, fraud screening, pickup security, and additional controls for sensitive shipments. The useful next step is to translate those priorities into a lane-specific operating plan with clear responsibilities and evidence requirements.

Before a program begins, agree on monitoring availability, coverage hours, escalation ownership, recovery authority, documentation, and commercial terms. Any service guarantee or credit should be defined in the written agreement, including its scope and exclusions.

Start with one lane

Bring a recent shipment file and your current shipping requirements. Ask Forza to review where the handoffs are exposed and what a documented control plan should contain.

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Make the review concrete

Bring one routine load, one exception, and one rejected or disputed shipment. Walk through the instructions, pickup verification, condition data, communication trail, and final decision. Leave with named actions and owners.

The goal is a process your team can explain and repeat: evidence at release, ownership during transit, and a documented decision at receipt.

The question that matters

Could someone outside your team reconstruct this shipment from the record alone?

The evidence behind the guide

This field guide combines published technical guidance with original Forza operating tools. It is designed to support your procedures and qualified decisions.

Regulatory context

The FDA sanitary transportation rule applies according to activities and exemptions, not simply job titles. Its definition of shipper can include a freight broker. Written agreements can assign covered responsibilities; record-retention duties vary by record category. Have the responsible compliance personnel map the actual operation to the rule. [1]

Sources and use of this guide

[1] Electronic Code of Federal Regulations. **21 CFR Part 1, Subpart O**, especially §§ 1.904, 1.908 and 1.912. Reviewed October 18, 2026.
Read the sanitary transportation requirements

[2] University of Florida IFAS Extension. **Protecting Perishable Foods During Transport by Truck or Rail**, HS1328. Sections on heat, air and product temperatures, preparation, and loading.
Read the technical handbook

[3] USDA Agricultural Marketing Service. **Protecting Perishable Foods During Transport by Truck**, Agriculture Handbook 669, 1995; reprinted 2008. Technical background on refrigeration and preparation; not a statement of current law.
Read the USDA handbook

The checklists, scorecard, and implementation plan are Forza recommendations synthesized for operational use. They do not establish commodity acceptance limits or guarantee loss prevention. Approved product specifications, qualified food-safety decisions, and applicable requirements govern each shipment.

[4] Blue Book Services. **2026 Trading & Transportation Guidelines**. User-supplied edition, Transportation Guidelines, pp. 22-31, particularly the sections identified in this guide. Blue Book describes industry practices and its dispute-assessment approach; it is not a universal food-safety standard or a substitute for the governing contract and applicable law.

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